DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT MULTI-HAZARD MITIGATION PLAN

P.O. Box 164
Oregon House, CA 95962

Part of the Yuba County Hazard Mitigation Project
FEMA HMGP # EMF-2004-PC0002

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Acknowledgements

The Dobbins-Oregon House Fire Protection District (the District) Hazard Mitigation Planning Committee acknowledges the many people who contributed to the compilation of this local Multi-Hazard Mitigation Plan (MHMP). The District MHMP Planning Committee used data, reports and plans from various sources including, but not limited to information from local, county and State agencies as part of the research in preparing this plan. The committee wishes to thank those participating agencies and individuals.

Many extra thanks go to the working group members who devoted so many hours to research, edit and develop the MHMP process to meet the needs of the Dobbins-Oregon House Fire Protection District and the County of Yuba.

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State Department of Water Resources
U.S. Army Corps of Engineers
Yuba County Water Agency
Yuba County Sheriff's Department
California Department of Fish and Game
Dobbins-Oregon House Improvement Foundation

Funding Resources

This project was developed by the Yuba County Pre-Disaster Mitigation Grant Project funded by the Department of Homeland Security, Federal Emergency Management Agency (DHS-FEMA) 2003-2004 PDM Grant for the development of this Multi-Hazard Mitigation Plans. The Plan will be adopted by the Yuba County Board of Supervisors as part of the Yuba County Multi-Jurisdiction, Multi-Hazard Mitigation Plan.

Executive Summary

The motivation for our all volunteer fire district to participate in the Multi Hazard Mitigation Plan (MHMP) was based on two catastrophic fires, the 1997 Williams Fire and the 1999 Pendola Fire. The process to develop our Plan was initiated in late 2004 with the support of the Yuba County Hazard Mitigation Project. We anticipated that the process to a develop the DOHFPD Plan would be completed within a couple of months. The process has provided our District and the community with resources and a comprehensive plan to prevent and mitigate not only fires but all disasters that we face as first responders. This project has provided more benefits in addition to a Multi-Hazard Mitigation Plan for Dobbins and Oregon House. We are much wiser and our community is a much safer place in which to live.

The process on the road to the completion of the Plan has been as important as the completion of the total task. Previously, we believed our main tasks were to put out fires when they happened, and to rescue accident victims when necessary. We have learned that preventing or minimizing a disaster is a far more effective approach that reacting after it has occurred. The monthly Stakeholder's meetings, conducted under the direction of the County Hazard Mitigation organization have allowed all of the various agencies within our sphere of endeavor to become aware of the mutual efforts, problems, and solutions shared for the common good of the people we serve. Cal Trans, Union Pacific Railroad, Marysville Joint Unified School District, the Department of Health Services, the Yuba County Water Agency and many other local agencies all brought a fresh prospective to the ideas that had been previously limited to the scope of law enforcement and fire agencies.

The examination of our assets and liabilities produced eye opening information for our organization. This has caused us to restructure our future training and also our long term projects. We are now aware that we have three major areas of need:
1. reduction of annual fire fuel build up 2. limited water resources during the greatest time of need and 3. improved interoperability communications.

We have addressed the fuel build up with a two-pronged attack. We have obtained several state chipping grants for our area. This project has been incorporated into a public education and fuel reduction program to make the individual homeowner aware that they are personally responsible for the safety of their property. When they clear their property, we provide a chipping service that will handle the bio-mass they have removed from their property. The defensible space created around homes greatly reduces the probability fire and mitigates the loss of the dwelling and residential structures.

The limited water sources during the greatest time of need has been addressed by our department by creating strategically located water supplies specifically dedicated to fire suppression throughout our district. In addition, we have implemented a public education program that encourages homeowners to locate similarly dedicated individual water sources on their property to augment and support increased water supplies for fire mitigation..

Our fire district is a member of a Joint Powers Agency (JPA) comprised of the five volunteer fire districts within the Yuba County foothills. This JPA has acquired funding from the Yuba County Terrorism Task Force (TTF) to refurbish and enhance the entire emergency communication system serving our area. This system is comprised of numerous mountain top repeaters linked to a central Emergency Communication Center staffed by CDF employees under contract to the County. In addition, we have created an alternate dispatch system that is located outside of the flood plain of the County to serve as a backup to the existing dispatch system.

Examination of our current assets caused us to reevaluate our future plans. Our current main station has significant logistical problems and it became apparent through this process that they needed to be address sooner rather then later. We are now in the beginning phases of building a new main facility. With an all volunteer district and the limited funding associated with such an organization, this is a daunting task.

The guidance we have received from County Hazard Mitigation staff has been invaluable. In fact, without it, we would never have scratched the surface of this project. The establishment of the interfaces between the many and varied agencies are directly attributable to their efforts in leading this project. Although our initial mission was the development of a MHMP, we are light years ahead in the total picture and the members of the foothill communities are much safer. Our sincere appreciate to all Stakeholders, the DOHFPD volunteers and to the county project staff for their dedicated efforts.

If you have any questions or comments, please feel free to contact me or the other members of our volunteer fire district.

Sincerely,

Pete Hammontre
Chairman, Dobbins-Oregon House Fire Protection District
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Acronyms

Acronym	Definition
ARC	American Red Cross
BLM	Bureau of Land Management
BZPP	Buffer Zone Protection Program
CAHAN	California Health Alert Network
CalTrans	California Department of Transportation
CDC	Centers for Disease Control
CDF	California Department of Forestry and Fire Protection
CDHS	California Department of Health Services
CERC	Crisis and Emergency Risk Communication
CEQA	California Environmental Quality Act
CHP	California Highway Patrol
CI/KR	Critical Infrastructure and Key Resource
CSA	Community Service Area
CWPP	Community Wildfire Protection Plan
DFG	Department of Fish and Game
DHS	Department of Homeland Security
DMA 2000	Disaster Mitigation Act of 2000
DOACT	Dobbins-Oregon House Action Committee
DOHFPD	Dobbins-Oregon House Fire Protection District
DWR	California Department of Water Resources
EAP	Emergency Action Plan
ECRV	Emergency Communications Response Vehicle
EIR	Environmental Impact Report
ENSO	El Nino/Southern Oscillation
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FFPD	Foothill Fire Protection District
FVFD	Foothill Volunteer Fire Department
Fire Safe	Yuba Watershed Protection & Fire Safe Council
GIS	Geographic Information System
HAZMAT	Hazardous Materials
HFRA	Healthy Forests Restoration Act
HMGP	Hazard Mitigation Grant Program
HR	House Resolution
HVA	Hazard Vulnerability Assessment
ICS	Incident Command System
JPA	Joint Powers Authority
LHMP	Local Hazard Mitigation Plan
MCE	Maximum Credible Earthquake
MCI	Multi-Casualty Incident
MHMP	Multi-Hazard Mitigation Plan
MJUSD	Marysville Joint Unified School District
MOU	Memorandum of Understanding
NEIC	National Earthquake Information Center
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration

NWS	National Weather Service
NYP	Nevada-Yuba-Placer
OASIS	Operational Area Satellite Information System
OES	Office of Emergency Services
PDM	Pre-Disaster Mitigation
PGA	Peak Ground Acceleration
PG&E	Pacific Gas & Electric Company
SACOG	Sacramento Area Council of Governments
SEMS	Standard Emergency Management Systems
SFHA	Special Flood Hazard Area
SRP	Smallpox Response Plan
TTF	Terrorism Task Force
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USFS	United States Forest Service
USGS	United States Geological Survey
VIP	Volunteers in Prevention
WHO	World Health Organization
WUI	Wildland Urban Interface
YCHHS	Yuba County Health and Human Services Department
YCSO	Yuba County Sheriff's Office
YCWA	Yuba County Water Agency
YCWD	Yuba County Water District
YSDADA	Yuba Sutter Domestic Animal Disaster Assistance

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1 Dobbins-Oregon House Fire Protection District

The Dobbins-Oregon House Volunteer Fire Company Inc. was first organized in 1985, as a nonprofit public benefit corporation for the specific purpose of providing emergency service to the people of the Dobbins-Oregon House area, consisting of a portion of the unincorporated territory of the County of Yuba.

The Dobbins-Oregon House Fire Protection District (DOHFPD) (Fig. 1–1) was organized in 1988 to govern the Volunteer Fire Department. The District is a 72 square-mile area in the northeastern portion of Yuba County, located in the heart of the California Gold Country in the foothills of the Sierra Nevada. The District is spread along both sides of Marysville Road, which runs north by northeast between State Highway 20 and New Bullard's Bar Reservoir.

The District is responsible for providing structure fire and emergency medical response through an all-volunteer fire department. With very little turnover of personnel, the average age of the firefighters is 45 years old with an average of 10 years of service. Because of the location of the Fire District, it has developed the capability of operating as an alternate county dispatch center as well. The District has engines located at three strategic locations: the main station, located in the center of the District near the community of Oregon House; a substation, located in the community of Dobbins; and another substation located at Collins Lake Resort. The District is administered through a Board of Directors and financed through assessment fees.

The District's area of responsibility includes the communities of Dobbins and Oregon House. These communities extend along both sides of Marysville Road, the major access corridor for the area. Marysville Road, which runs north by northeast between Highway 20 and Highway 49, receives heavy truck and trailer traffic and is the major artery for delivery of propane gas and other volatile materials to the area. The state highway transportation corridors provide logging trucks thoroughfare to railways and logging mills increasing the likelihood of HAZMAT spills and transportation accidents.

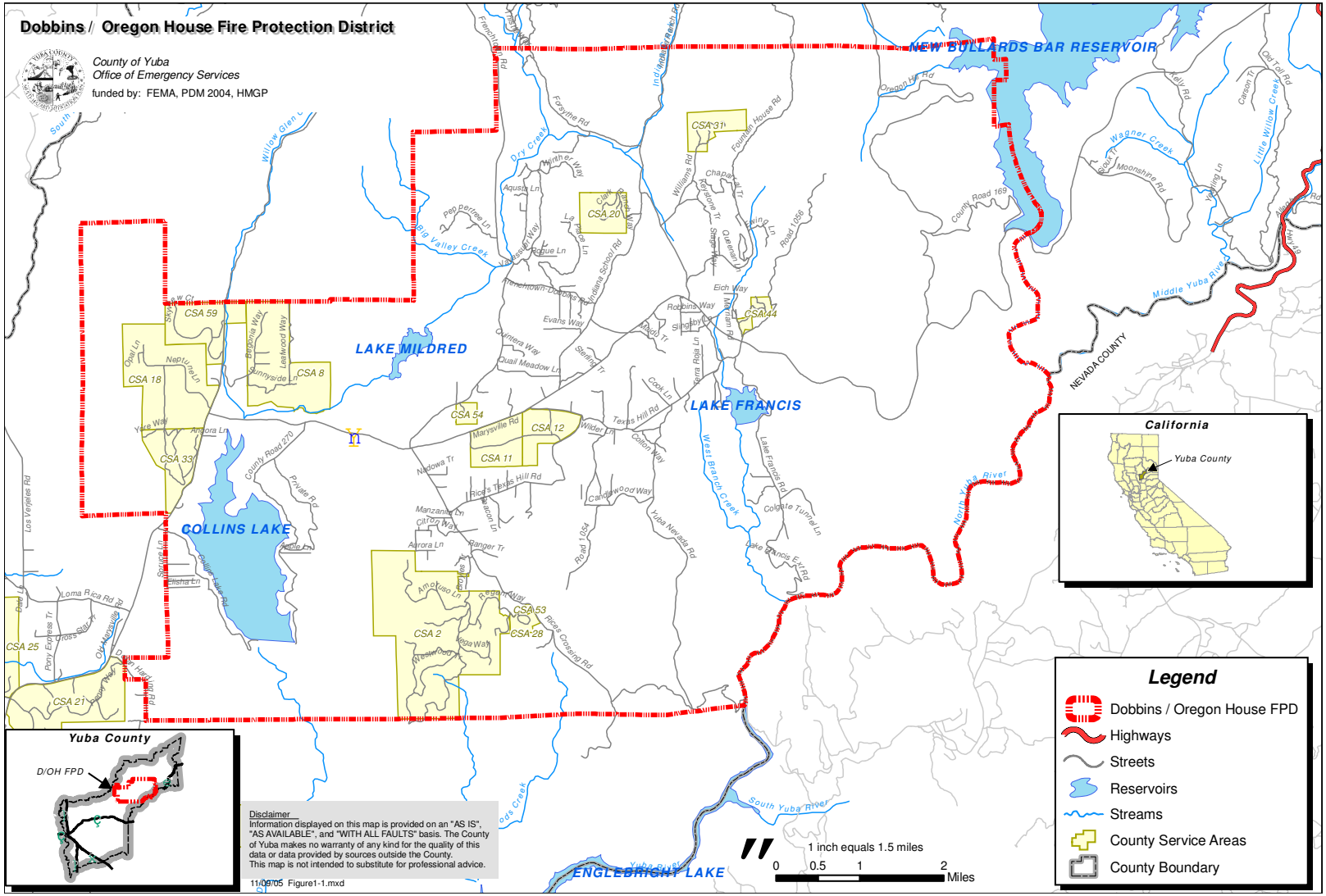
Isolation afforded by the woods and forests of the foothills within the District makes the area a prime location for the clandestine production of methamphetamines and other designer drugs. The compounds used in their production are well-known sources of hazardous contamination, and require specialized handling. Explosions and fires resulting from the mishandling of these volatile compounds are a relatively common occurrence in the area.

Across Yuba County, disasters have led to increased levels of injury, property damage, interruption of business and government services and even death. Two major wild land fires have accrued in the District in recent years, the Williams Fire in September 1997, and the Pendola Fire in October 1999. Together they destroyed over 17,500 acres of timber, 105 residences and 219 other structures including 3 commercial buildings. Emergency response costs exceeded $3 million for each fire. At the height of the Pendola Fire, a total of 2,505

personnel and equipment resources were assigned to the incident from 31 different agencies. Currently, the District includes almost $175,000,000 in assessed residential and commercial property.

The District has mutual aid agreements with CDF and the U.S. Forest Service for the suppression of wild land fires. CDF is the lead agency in dispatching services to all fire and emergency medical incidents within the District.

Figure 1–1 Dobbins–Oregon House Fire Protection District



The Communities of Dobbins and Oregon House

The communities of Dobbins and Oregon House are in the north-eastern portion of Yuba County, in the heart of the California Gold Country in the foothills of the Sierra Nevada. The communities are spread along both sides of Marysville Road, which runs north by northeast between State Highways 20 and 49. Marysville Road is the major access corridor for the area, the state highway transportation corridors provide logging trucks thoroughfare to railways and logging mills

The community of Dobbins is located 31 miles northeast of Marysville and was named for a ranch once owned by William and Mark Dobbins who settled in 1849, on the creek that bears their name.

The community of Oregon House is situated 24 miles northeast of Marysville, and was first settled in 1850. The "Oregon House" for which the community is named was, built in 1852, and was the site of a grand party on the anniversary of the battle of New Orleans, in 1853. It is one of the landmarks of Yuba County, a military company called the Yuba Mountaineers, used the Oregon House as a rallying point.

The communities are referred to as the Dobbins-Oregon House (D-OH) because of their close proximity to each other and the shared services. Collectively they are part of the Dobbins-Oregon House Fire Protections District and have a local citizen group, DOACT (Dobbins-Oregon House Action Committee) which is active in the affairs of the community and issues in the county which affect the area at large.

The District covers an area of 46,080 acres with a population density of 0.05 people per acre *(U.S. Census 2000*). The population has increased by 0.9% annually from 1990 to 2000. The total population for D-OH at build-out is estimated to be 7,050, with the current lot size restrictions. At the current rate of population increase build-out could be achieved in approximately 60 years.

There are approximately 1,615 residential structures and approximately 29 businesses which are protected by the fire protection district services. (County of Yuba GIS, 2004)

There are two schools in the community: Dobbins School, a public K-5 elementary school, and Lewis Carroll School, a private school, for daycare/ pre-school through 8th grade.

A small medical clinic, New Bullard's Bar Dam and power station, Collins Lake and 3 private RV/camping reserves are part of the community. The State of California has a CDF station and the University of California at Davis has an agricultural experimental field station close to the community.

The County of Yuba

Yuba County is located in the northern corridor of California's capital region. According to the U.S. Census Bureau's 2004-population estimate, a little over 64,000 people call Yuba County home. Yuba County is comprised of two incorporated cities: Marysville, the county seat, and Wheatland, along with unincorporated communities that include Linda, Olivehurst, Plumas Lake, Arboga, District 10, Hallwood, and U.S. Federal facility Beale Air Force Base. In the foothill and mountain region are Loma Rica, Browns Valley, Oregon House, Dobbins, Brownsville, Challenge, Clipper Mills, Strawberry Valley, Rackerby, Celestial Valley, Camptonville, River Highlands, and Smartville. (*source: Yuba County General Plan, December 1996)*

Yuba County offers its residents the many advantages of a rural lifestyle, away from the pressures of the urban areas. The County's rivers, lakes and outdoor recreation areas provide excellent hunting, fishing, boating and skiing opportunities. Only two hours away from San Francisco and Lake Tahoe, Yuba County is also a gateway to the historic Mother Lode Country.

Major transportation corridors include the north-south State Highways 70 and 65, and the east-west State Highway 20, providing easy access to Sacramento's International Airport, deep-water port, and Interstates 5 and 80. The Yuba County Airport offers a 6,006-foot main runway for local flying opportunities. The County is served by two lines of the Union Pacific Railroad. Its agricultural industries rely heavily on truck transportation.

Home to Yuba College, the County is within 50 miles of other major educational institutions, including the University of California at Davis, and two California State Universities, Chico and Sacramento.

Situated in the northeastern corner of the Central Valley, the County's economic base continues to offer abundant agricultural crops in a rural setting. There is a well-established medical community that includes a medical center and a state-of-the-art cancer facility in Marysville. Located in the southern part of the County, the Sleep Train Amphitheatre is a $25 million state-of-the art concert facility serving the greater Sacramento Valley and northern California.

Yuba County, with a 2004 population estimated at 64,631, has an average population density of 102.5 persons per square mile. Yuba County contains approximately 631 square miles and is generally bordered by Honcut Creek on the north, the Bear River on the south, the Feather River on the west and the Yuba River on the east. While Yuba County is the 39th most populous county in California, it is ranked 52nd in size among the 58 counties. *(source: U.S. Census Bureau, 2004 population estimates, Table GCT-T1)*

Yuba County has an aging population demographic with 10.6 percent of the county's population aged 65 years or older.

1.1 Purpose

The purposes of the District are to provide emergency services of the highest caliber to the inhabitants and visitors within the Dobbins-Oregon House Fire Protection District, and to create and maintain a brotherly and fraternal feeling and perpetuate a spirit of a friendship among the members of the Dobbins-Oregon House Fire Protection District.

1.2 Legal Authority

The powers and duties of the District are defined by the California Health and Safety Code. The following is an excerpt of the pertinent code:

13861. A district shall have and may exercise all rights and powers, expressed or implied, necessary to carry out the purposes and intent of this part, including, but not limited to, the following powers:
(a) To sue and be sued.
(b) To acquire any property, including water facilities for providing fire protection, within the district by any means, to hold, manage, occupy, dispose of, convey and encumber the property, and to create a leasehold interest in the property for the benefit of the district.
13862. A district shall have the power to provide the following services:
(a) Fire protection services.
(b) Rescue services.
(c) Emergency medical services.
(d) Hazardous material emergency response services.
(e) Ambulance services, pursuant to Division 2.5 (commencing with Section 1797).
(f) Any other services relating to the protection of lives and property.

13869.7. (a) Any fire protection district organized pursuant to Part 2.7 (commencing with Section 13800) of Division 12 may adopt building standards relating to fire and panic safety that are more stringent than those building standards adopted by the State Fire Marshal and contained in the California Building Standards Code. For these purposes, the district board shall be deemed a legislative body and the district shall be deemed a local agency. Any changes or modifications that are more stringent than the requirements published in the California Building Standards Code relating to fire and panic safety shall be subject to subdivision (b) of Section 18941.5.
13870. (a) Notwithstanding any other provision of law, a district board or its authorized representative may issue a written order to correct or eliminate a fire hazard or life hazard.
(b) Any person who has been ordered to immediately correct or eliminate a fire hazard or life hazard pursuant to subdivision (a) and who believes that strict compliance with the order would cause undue hardship may, within 10 days, present a written request to the district board requesting a hearing on and a review of the order. The request shall state the reasons for making the request.
(c) Within 30 days of the receipt of a written request pursuant to subdivision (b), the district board or its authorized representative shall hold a hearing. The board may modify, vacate, or affirm the order. (source: California Health and Safety Code, Division 12 Fires and Fire Protection, Part 2.7 Fire Protection District Law of 1987, Chapter 5 General Powers and Duties)

14930. The board of supervisors may, by ordinance, compel the owner, lessee, or occupant of buildings, grounds, or lots in the county, to remove dirt, rubbish, weeds, or other rank growths from such property and adjacent sidewalks. If the owner, lessee, or occupant defaults, after notice prescribed by such ordinance, the board may authorize the removal or destruction of the dirt, rubbish, weeds, or rank growths at his expense by a county officer. The board may, by ordinance, prescribe a procedure for such removal or destruction and make the expense a lien upon the real property in accordance with Section 25845 of the Government Code.
14931. The ordinance may require or provide any of the following:
(a) Require and provide for the removal of grass, weeds, or other obstructions from the sidewalks, parkings, or streets and make the cost of removal a lien upon the abutting property.
(b) Require or provide for the removal from property, lands, or lots of all weeds, rubbish, or other material dangerous or injurious to neighboring property or the health or welfare of residents of the vicinity and make the cost of removal a lien upon the property.
(c) Provide for the enforcement of the lien by the sale of the property or otherwise. (source: California Health and Safety Code, Division 12 Fires and Fire Protection, Part 6 Abatement of Hazardous Weeds and Rubbish: Alternative Procedure)

1.3 Governing Board

The DOHFPD Board of Directors is made up of five elected or appointed members who must live within the District's boundaries. Board members are elected for a term of four years, with elections every two years to alternately elect three then two of the members. The District has a secretary and bookkeeper that are not members of the Board. The Volunteer Fire Department Chief reports to the Board. Board members cannot be volunteer firefighters while serving on the Board.

The Volunteer Fire Department is limited to 25 members who currently consist of a Chief, an Assistant Chief, two Captains, and 21 firefighters and emergency medical technicians or first responders. The Board of Directors consists of five members and three members-at-large. (Dobbins-Oregon House Fire Protection District Constitution, revised June 2003)

1.4 Administrative Structure

Board Chair
Vice Chair
Board member Board Member Board Member
12 committees with no more than two board members per committee
(each board member sits on at least two committees)
Secretary
Bookkeeper

Chief (reports to the board)
Assistant Chief
Captain (2)
Firefighters/Emergency Medical Technicians (21)

1.5 Demographics

There are approximately 1,615 residential structures and approximately 29 businesses which are protected by District services. (County of Yuba GIS, 2004) The District receives approximately $118,900 for its services to landowners through assessments, taxes, grants, and fees. *(County of Yuba, Assessors Office, 2005)*

The District had a population of 2,340 people in the year 2000 with an aging population of 16.8 percent that was 65 years and older, compared with 10.6 percent of the County's population. Thirty percent (30%) of the District's residents are 55 years or older and 20% is 14 years of age or younger (*source: U.S. Census Bureau Population Sex by Age; Table P12)*

1.6 Geography & Climate

The District boundaries stretch from New Bullard's Bar on the northeast to Collins Lake on the southwest; from the Yuba River on the east and to the foot of Sugar Loaf Mountain, and the peak of Uri Mountain to the south.

Eight miles in length and 12 miles at its widest point, the District encompasses 69 square miles of which 2 square miles (2.89%) are water and 67 square miles are land. (*source: Yuba County Assessor Office, 2004*)

The District provides a varied geography within the foothill region of Yuba County, which includes the western shore of New Bullard's Bar Reservoir and the north fork of the Yuba River. Within the District there are oak woodlands, wooded forests and mountains, streams, lakes, and pasturelands. Elevations generally range from 820 feet above sea level in the southwest to nearly 3,300 feet at Oregon Peak. In general, the topography of the District slopes downward from the northeast to the southwest.

The District habitat includes Blue Oak and Digger Pine forests at the lower elevations, a very small area of Riparian Forest in the extreme northwest corner, and Sierran Yellow Pine Forest in the western half of the District. The District includes wild lands and forested areas designated by CDF as having a very high fire hazard severity, with the average age class of fuels over 40 years old.

The Foothills themselves are quite rocky in places and are principally utilized for grazing, with vineyards and occasional orchards growing in the foothill valleys. Small ranches take advantage of the lower more level reaches to produce cattle and hay.

The lowest elevation point in the District is 600 feet adjacent the Yuba River, compared to the average County valley elevation of 51 feet. Historically, the District has experienced localized stream flooding and occasional landslides during the winter rainy season.

The western part of the Sierra Nevada mountain range in Yuba County is drained south and west into the deeply entrenched Yuba River. The mountain range is a complex of round smooth ridge tops, steep mountain sides, and very steep canyons with elevation increases from about 1,900 feet to about 4,825 feet.

The eastern part of the Sierra Nevada mountain range in Yuba County is also drained west and south by numerous intermittent and perennial streams into the Feather River. These streams often bisect the ridges that are oriented northwest to southeast. Elevation from about 200 feet, near the valley floor, increases to about 1,900 feet in the foothill areas.

Yuba County has a climate that is characterized by hot dry summers and cool moist winters in the valley and lower foothills and by warm dry summers and cold, wet winters in the upper foothills and mountains. The Coast Range to the west diverts the direct flow of marine air from the Pacific Ocean. The Sierra Nevada mountain range to the east shields the county from the cold continental winter climate found in states further east.

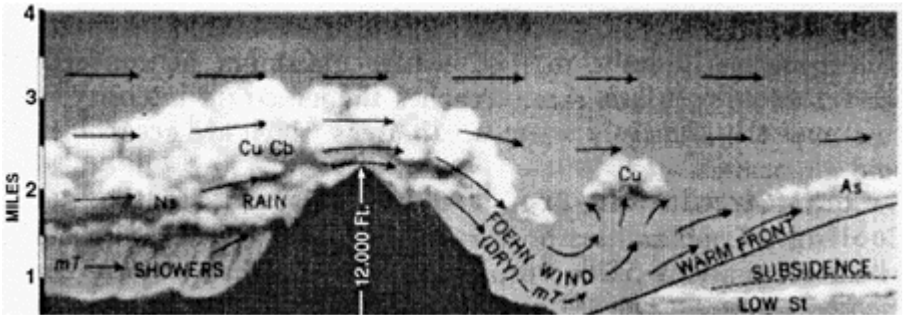
Precipitation increases with elevation in Yuba County. The total annual precipitation is 21.04 at Marysville, in the western extreme of the county at an elevation of 65 feet. Annual precipitation within the District ranges from approximately 60 inches in the northeastern portion to 35 inches in the southwest at Collins Lake. Nearly 34 percent of the annual precipitation usually falls from March through October. Thunderstorms occur on about 5 days each year, and most often occur in April. (*source: Soil Survey of Yuba County, 1998*)

The prevailing winds in the valley are usually from the southwest where the average wind speed is highest (approximately 9.8 miles per hour) in June. The southwesterly winds in the valley result from the north-south orientation and heating of the valley floor, which deflects the westerly

winds coming through the Carquinez Straits northward. Late in the winter and early in the spring these winds bring cold dry weather.

Strong northerly winds, known as Föehn winds (Figure 1-2), are not unusual on the western slopes of the Sierra Nevada in late summer and are responsible for many large fires, for example, the Milk Ranch Fire, the Forty-Niner Fire, the Pendola Fire and the Williams Fire. Föehn winds occur when a deep layer of prevailing wind is forced over a mountain range. As the wind moves upslope, it expands and cools, causing water vapor to precipitate out. This dehydrated air then passes over the crest of the mountain and begins to move down slope. As the wind descends to lower levels on the leeward side of the mountains (the Yuba County foothills), the air heats as it comes under greater atmospheric pressure creating strong, gusty, warm, dry winds. Föehn winds can rise temperatures as much as 54 degrees Fahrenheit and reduce the humidity as much as 30 % in just a matter of hours. Föehn winds are associated with the rapid spread of wildfires, making this region and the Yuba County foothills particularly fire-prone. (In southern California the Föehn winds that occur there are known as the "Santa Ana Winds".)

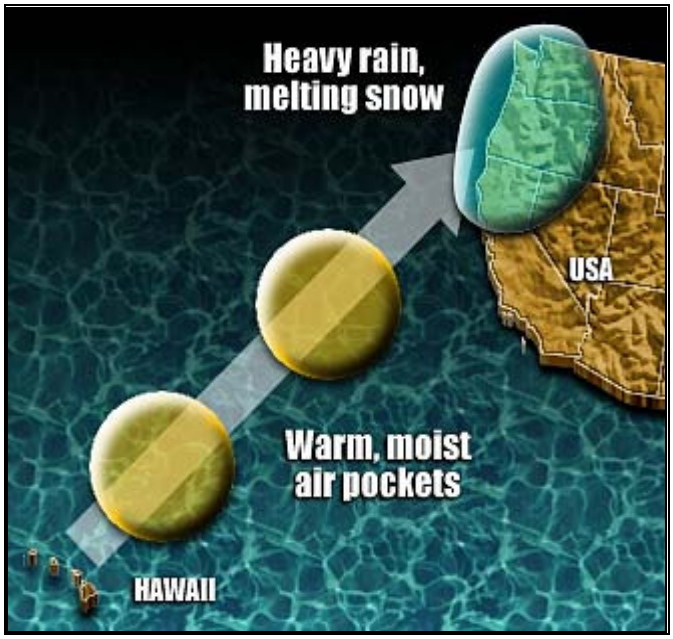
Figure 1–2 Föehn Winds



The District generally ranges in elevation from 1,200 feet to 2500 feet. The climate is considered Mediterranean and cycles through a cool rainy winter season and a dry summer season (*Ritter 2005*). Summers are hot and dry with highs in the upper 90s and lows in the low 60s. Winters are cool and wet, with most of the year's rain falling from late October through early April; highs are in the mid 50s and lows in the upper 20s. The District is generally below the winter snow and above the valley fog. The District area received up to 4 feet of snow in the 1990s.

The Dobbins 1S weather station has recorded an average low of 32.9 degrees in December and an average high of 92.0 degrees in August (*source: Western Regional Climate Center, wrcc@dri.edu, 2005*),

A climatic condition that sometimes affects the District is The Pineapple Express, which brings heavy rainfall and the threat of localized flooding by melting the winter snow pack. The Pineapple Express was responsible for very heavy rainfall in 1986 and 1997 when broken levees resulted in disastrous flooding in the towns of Linda, Olivehurst, and Arboga (*McCarthy 1997*). During the 1997 Pineapple Express, almost 40 inches of rain fell in the Feather River basin in eight days (*McCarthy 1997*).



A relatively common weather pattern that brings southwest winds to the Pacific Northwest or California along with warm, moist air is often called the Pineapple Express. The name comes from the source of the moisture: The tropical Pacific Ocean near Hawaii, where pineapples are grown. The Pineapple Express sometimes produces days of heavy rain, which can cause extensive floods. The warm air also can melt snow in the mountains, further aggravating flooding. During the colder parts of the year, the warm air can be cooled enough to produce heavy, upslope snow as it rises into the higher elevations of the Sierra Nevada or Cascades. *Source: USA TODAY research by Chad Palmer*

1.7 Areas of Historic or Environmental Significance

The major transportation corridors through the District include Marysville Road, the east-west corridor which provides easy access to State Highway 20, and the north-south routes along Willow Glen Road and Rice's Crossing Road.

The District has a number of recreational opportunities with Bullard's Bar Dam and reservoir, Collins Lake, Lake Francis, Lake Mildred, and over 3,760 acres of national forest lands.

It is the intent of the Yuba County Board of Supervisors that development projects within Yuba County be consistent with CEQA (§27000 of the Public Resource Code) and the State EIR Guidelines (§15000, et seq. of the Administrative Code), and §65925 et seq. of the Government Code.

Areas of Historic Significance

Keystone Cemetery, also known as Indiana Ranch Cemetery and is located on Indiana Ranch Road, north of the community of Dobbins. A plaque at the front of the cemetery reads "Keystone Cemetery 1853-1985 Dedicated to the pioneers that settled this area, built by the community to honor the memory of Alvin & Ruth Clark, caretakers for 30 years, and to Martha Clark Griffith & Ethel Jones Allnett, who deeded this land to the County."

Keystone became a Cemetery District in 1934 and is still in use today. There are 1,030 burials at the cemetery which averages about ten internments a year. Keystone Cemetery has long been a burial place of the local Maidu Indians. Traditions follows that the Indians were buried on one side of the road, while whites were buried on the other.

Areas of Environmental Significance

The Yuba River is the major environmental feature of significance in the District. The Yuba River forms the eastern boundary of the District. Beginning as three rivers; North, Middle, and South Forks, the Yuba River gathers water from 1,357 square miles of watershed (Figure 1–3). Never wider than 35 miles at any point, the watershed separates the forks with jagged rocky ridges for much of their distance. Local, State, and Federal agreements determine how much water will stay in the river's natural channels and how much can be diverted for other uses. The Yuba County Water Agency (YCWA) facilities including New Bullard's Bar Reservoir, western shoreline, falls within the Districts responsibility.

The North Fork of the Yuba River originates in the Yuba Pass (elevation 6,701 feet) near State Highway 49 in Sierra County. The North Fork follows the State Highway as far as Downieville before flowing westward into New Bullard's Bar Reservoir.

Excess runoff from the Williams and Pendola fires continue to have an impact on water quality of the Yuba River watershed. Soil rill and sheet erosion from these two and other burn sites in the steep foothill ecosystems create increased turbidity and ammonia levels post fire.

The District includes lands designated by the State of California protected by the California Department of Fish and Game outside Bangor on Honcut Creek, west of Collins Lake on Donovan Hill and Daugherty Hill at the southern tip of Collins Lake. Federals lands within the District boundaries are protected by the US Forest Service and Fish and Wildlife Service.(Figure 1-4**)**

Figure 1–3 Yuba County Watershed System

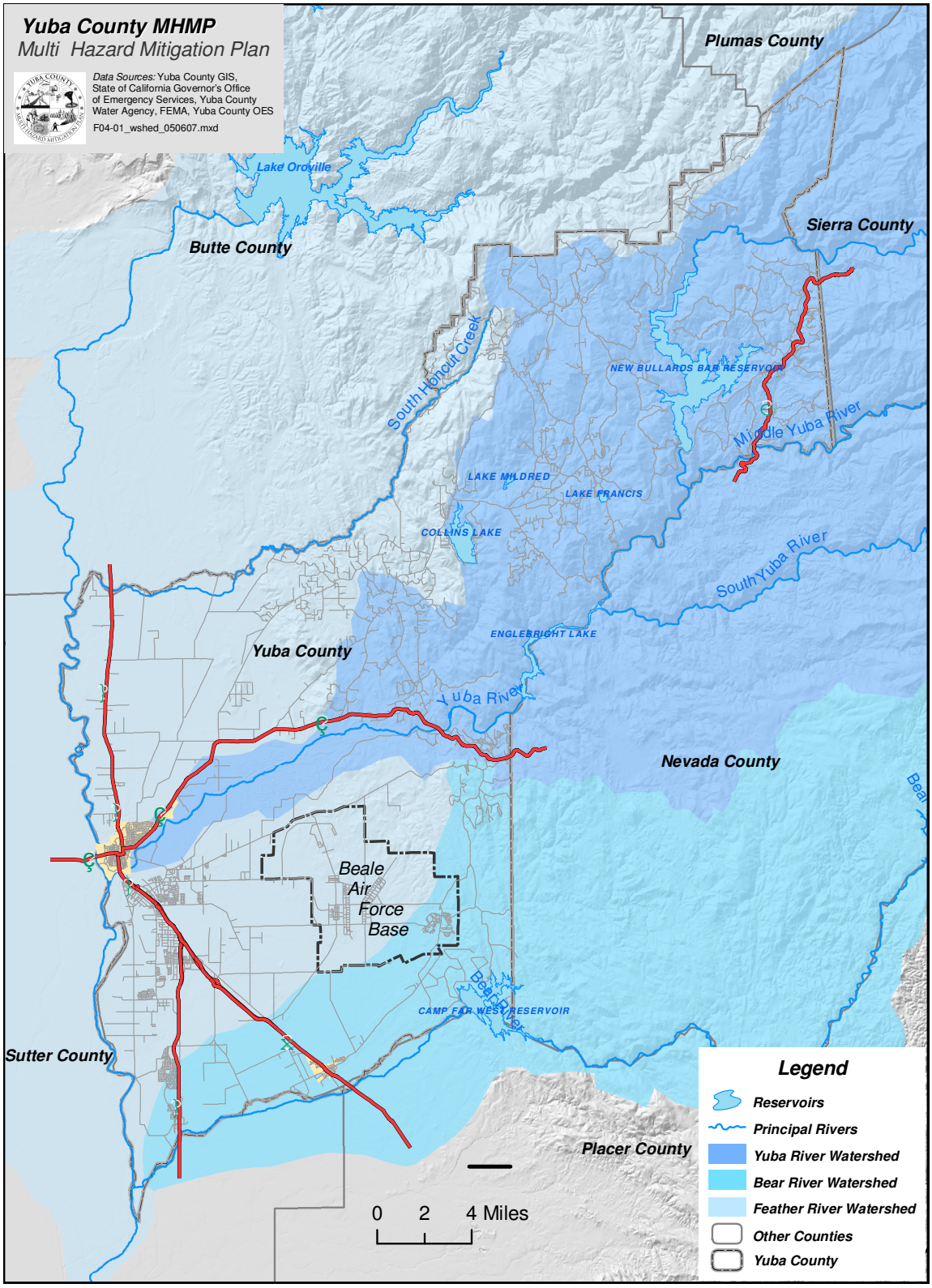
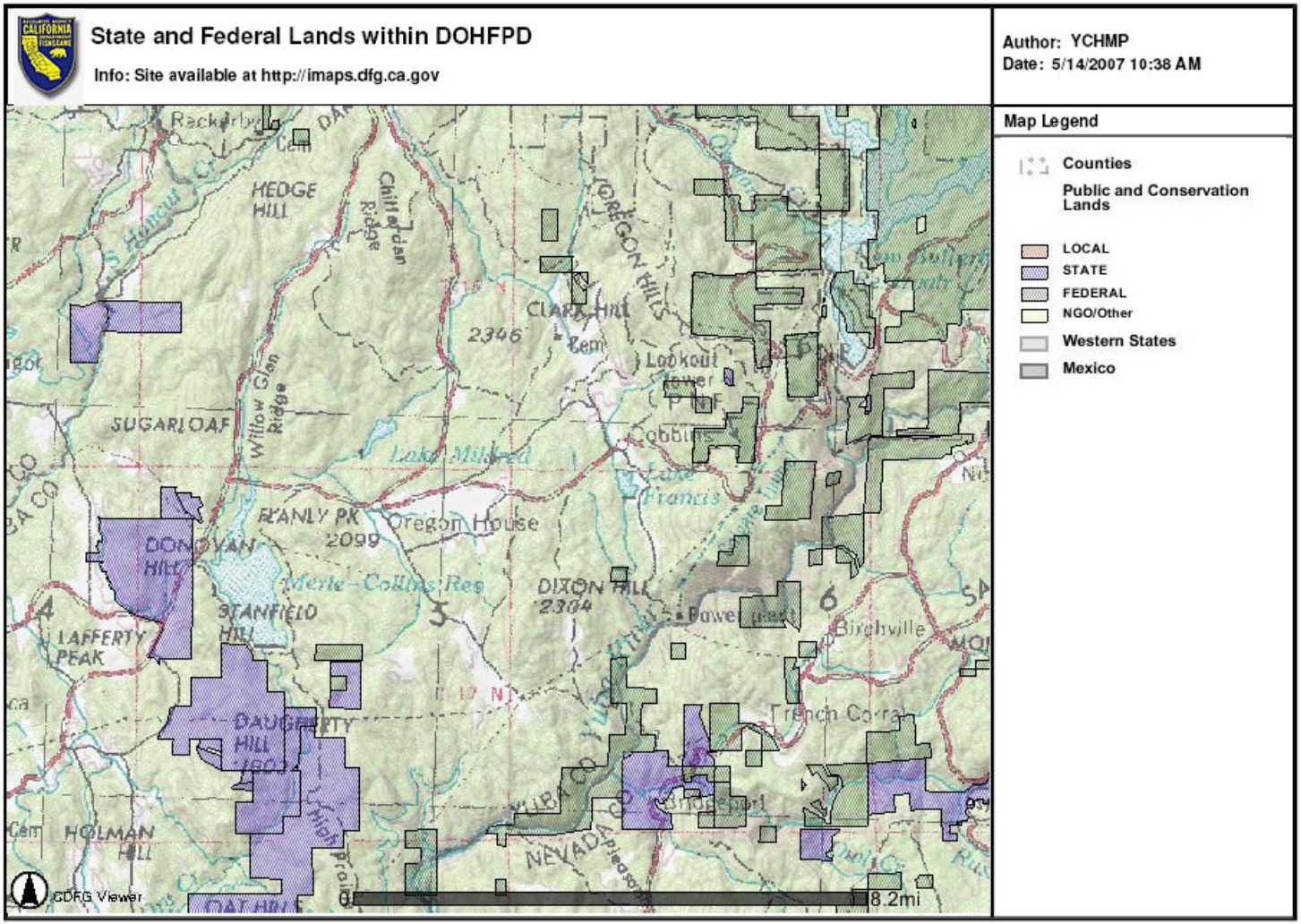


Figure 1–4 State and Federal Lands within DOHFPD

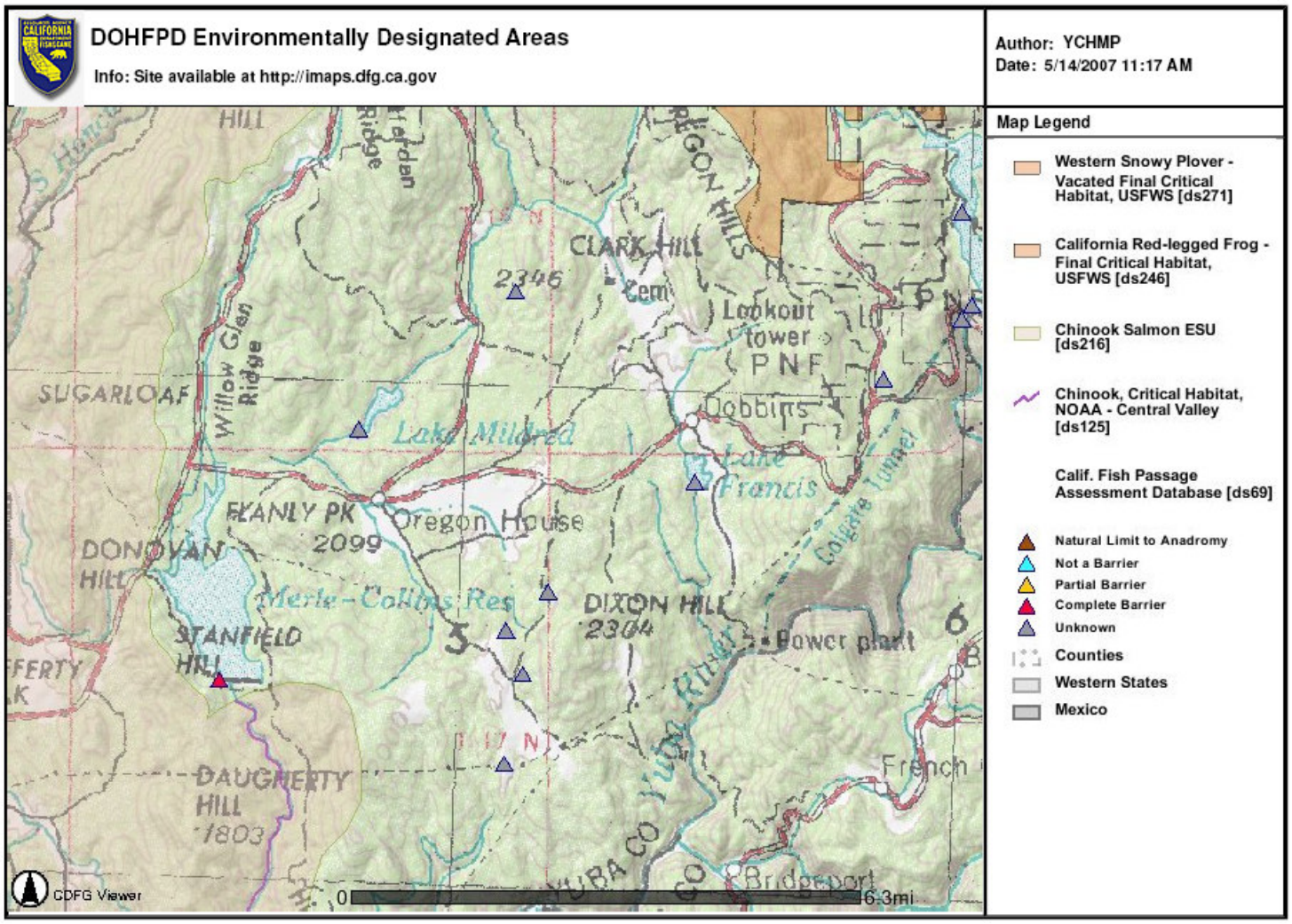


Threatened and endangered species

Critical habitat impacts pre-disaster mitigation strategies such as clearing for fuel breaks in high fire areas. Within the habitat areas restrictions are placed on the methods used to clear, time of year the habitat can be accessed and burning techniques US Forest Service, US Fish and Wildlife Service, and the CA Dept. of Fish and Game all have criteria to follow when granting applications for work within habitat areas.

Critical habitat for the threatened red-legged frog has been designated within the District near the west shore of New Bullards Bar along Little Oregon Creek. A habitat area is designated as 300 feet from both sides of an identified creek (Figure 1-5).

Figure 1–5 DOHFPD Environmentally Designated Areas



Migratory and resident deer herds

There are two migratory deer herds, the Mooretown and Downieville herds, and many resident deer in the Yuba County foothills. The migratory herds come down from higher elevations to winter in the lower foothill elevations. The resident deer spend their entire lives in the foothills, seldom ranging more than a mile from where they were born. Residential concentration areas within migratory deer herd areas in Yuba County include Forbestown, Challenge, Brownsville, Rackerby, Dobbins and Oregon House. The resident deer have adapted fairly well to the encroachment of humans.

For the migratory deer herds a decline in the habitat carrying capacity in Nevada, Sierra, and Yuba counties has caused a decline in the number of deer over the past 25 years. Habitat has been lost due to urban encroachment and the negative impact of the timber industry, increased recreational use, wild land fires, and livestock grazing.

Human population growth and land development are having a significant and irretrievable effect on the ranges of the resident and migratory herds. Human habitation reduces wildlife use in an area beyond that directly lost from construction activities. Harassment of many wildlife species by dogs is also a common by-product of urban encroachment. Although Yuba County has leash laws, many property owners allow their dogs to run free.

Yuba County zoning laws limit parcel size in critical migratory deer ranges. Zoning in the critical migratory deer range is one dwelling per 20 or 40 acre parcel depending on the range area. Set aside open ground is required for development of large parcels, allowing corridors for the migratory deer to pass.

1.8 Major Economic, Industrial, Agricultural, & Business Activities

The District is located in the unincorporated foothills of Yuba County. The District has large tracts of forest lands, both private and public, which represent a major portion of the County's agricultural income from timber sales.

Twenty-nine locally owned businesses are located within the District. Other businesses include logging and forestry, utilities, and camping and recreational facilities at the southwest shoreline of the New Bullard's Bar Reservoir, the Yuba River, Lake Mildred, Lake Francis, and Merle Collins Lake. Visitors to the District affect the District in many ways. The District is always concerned and prepares for the event of a wildland fire and the need to assist in the evacuation of thousands of visitors with recreational vehicles, trailers and boats. As the fire danger rises in the hot dry summer months the District maintains vigilance and an active fire education and prevention program.

As a result of the recreational traffic, Motor vehicle accidents and emergency medical responses rise during peak vacation times with the District providing emergency medical response..

1.9 History & Impact of Natural/Technological Hazards

Williams Fire September 27, 1997

The Williams Fire, a 5,743 acre fire in the north eastern portion of Yuba County, within the Dobbins Oregon House Fire Protection District, started at approximately 3:04 pm on Saturday, September 27, 1997. The cause of the fire was determined to be an electrical short in a motor home. The fire burned on private lands protected by the California Department of Forestry and Fire Protection (CDF). Most of the impacted property was in small ownership of 5-20 acres in size. The timber industry owned less that 5% of the land in the fire area.

The Williams fire was initially slope driven burning uphill toward the top of Fountain House Ridge in an easterly direction and containment was expected the first night. At 5:20 pm a föehn wind surfaced and the fire turned abruptly to the southeast down slope off the ridge spreading southwest 3000 feet by 6:00 pm.

The weather observation from Pine County Lookout on the day the Williams Fire broke out was as follows: air temperature was 86 degrees with relative humidity at 14%. During the first 14 hours the humidity remained in the low teens; with winds from the North/Northeast to East at 8-20 mph with gusts to 39 mph. This was a wind driven fire moving downhill under a northeast wind. By 4:00 am Sunday, the forward spread of the fire slowed significantly near Flanly Peak. Weather conditions changed in favor of suppression efforts by 6:00 am Sunday.

At its peak, the fire was progressing at 6,000 feet per hour. Long range spotting was a primary factor in the expansion of the fire. On Monday winds had slowed to 3 to 5 mph. There was no significant spread after 4:00 am, with the fire essentially contained by 10:00 pm Monday.

The fuel type near the point of origin was ponderosa pine timberland with large brush components. Vegetation types were mixed in a mosaic pattern in the fire area and included ponderosa pine pole stands, 6-14 foot mixed chaparral, oak woodland and grassland.

Structures were scattered through all fuel types. Slopes and denser patches of Live Oak produced crown fires. On flatter ground or in patchy fuels, the surface fire would produce rapid torching of individual and groups of trees. Surface fires were carried by cured grass and weed fuels through openings and provided the ladder fuel component for torching and crown fires. The extreme fire intensity is reflected in the damage done to vegetation. In many areas, all the pines were killed by direct flame contact or by lethal crown scorch. Many brush areas were consumed leaving only short stubs to re-sprout. A minority of brush and timber areas were under burned, causing more survivable impact on the vegetation. Leeward slopes and riparian areas near the western portion of the fire were less heavily damaged, probably resulting from abating fire conditions as the winds slowed near sunrise.

Operational resources were supplied by CDF, USFS, and numerous Fire Districts and municipalities. Foresters from CHY Timber and Soper Wheeler were contacted to provide maps, air photos, and to help with contingency planning. Timber landowners used their own equipment to open old roads along the north side of the fire. Before the fire was contained 186 engines, 45 hand crews, 27 dozers, 21 water tenders, 6 helicopters, 7 air tankers and 201 overhead personnel were assigned to the incident.

The impact to the residents and communities was immeasurable. 5,743 acres were burned, 91 housing structures, 136 out buildings and 184 vehicles were destroyed. There was a total of $19 million in damage to buildings, equipment and land. A mass evacuation was begun Saturday with traffic control and check points in place on the 27th, 28th and 29th. At 10:00 am Monday affected residents were allowed re-entry. Counselors and hazard awareness handouts were provided at each re-entry point.

A large portion of the affected population lived in older mobile homes and travel trailers. There were 36 frame homes, 55 mobile/modular homes, 38 travel trailers and 9 recreational vehicles destroyed in the fire. It was estimated that twice this number of residences were destroyed because many of the residents in the foothills of Yuba County live in trailers and small owner constructed dwellings that have not been through the permit process. These residents do not pay taxes and do not have a structure/dwelling attached to the APN number and could not be counted as officially destroyed. These home owners generally had no insurance. Many of the residents did not have the means to purchase or finance new homes. To help residents re-establish themselves an emergency ordinance was passed by the Yuba County Board of Supervisors to allow mobile homes to be brought on to property that were not up to the current building code/standard and county permit fees were waived. This was to be temporary, 18 months was the maximum that a trailer could be left on the property. Older mobile homes and trailers were donated to families in an effort to give them a place to stay and to help these families get their lives back to normal. Many of these dwellings are still in use today.

Pendola Fire October 16, 1999

The Pendola Fire burned 11,725 acres beginning October 16, 1999. It was declared controlled on the 24th of October, 9 days after it started. The fire began at approximately 4:00 am, the cause was determined to be from a wind blown conifer that fell onto an electrical powerline just west of the Pendola Road/Pendola Extension, on private land adjacent to the Tahoe National Forest. The conifer was a live green tree approximately 120 to 150 feet tall. The location was a remote area in the north eastern area of Yuba County on the east side of Bullards Bar Reservoir in the Camptonville Fire Protection District.

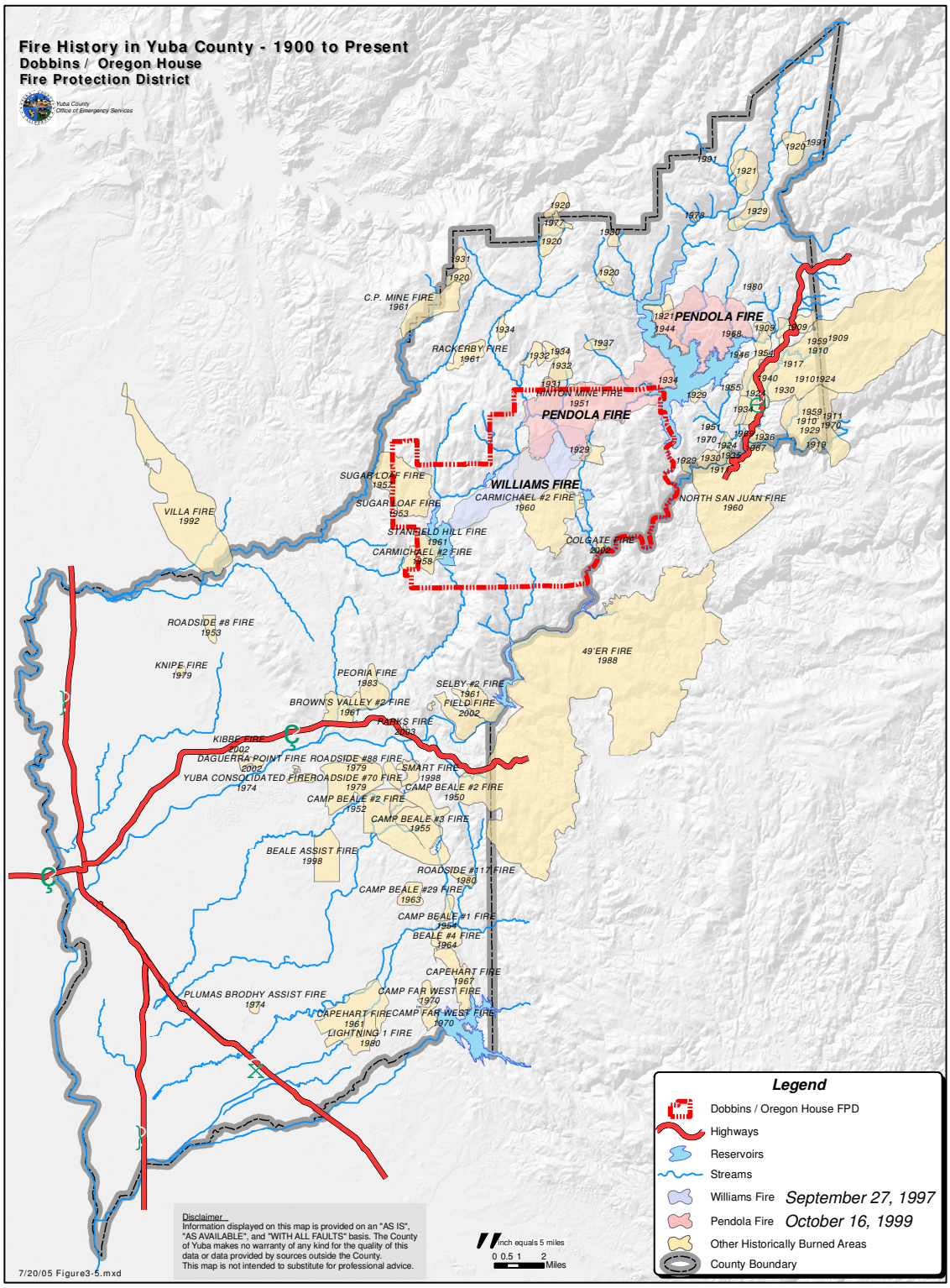
Weather on the day of the fire was hot, dry and windy. The fire was pushed by strong föehn winds coming from the northeast and gusting 30-40 mph in the vicinity of the Yuba River Canyon. The strongest gusts occurred during the early morning hours of the 16th which is typical of a fall föehn wind event. The combination of strong wind, relative humidity near 20% and critically dry

fuels resulted in optimum conditions for rapid fire growth and extreme fire behavior. The fire made its major growth on the first day. A Red Flag Warning had been issued by the National Weather Service in Sacramento valid for October 16th. The strong winds declined on the 17th although the relative humidity remained low for the rest of the following week. The Pendola Fire did not increase its size significantly after the 17th.

Fuel type near the point of origin was primarily cured grass. The fire eventually spread into heavier ground fuels and mixed conifer stands. During the first burning period, the fire made rapid runs, with active spotting in the pine and madrone over story and in the needle cast and heavier brush. The fire spotted across Bullards Bar Reservoir into conifer stands. As the fire burned to the southwest, the fuels generally changed into a mix of heavy brush and conifer with occasional open grass areas. The fire burned into the 1997 Williams Fire perimeter when the winds changed from northeast to south. The light flashy fuels within the old Williams Fire perimeter had a large component of dead standing brush and trees.

Agency cooperation on the Pendola Fire was excellent. The fire was under unified command between the U.S. Forest Service and California Department of Forestry. At the height of the incident 2,505 fire fighting resources were assigned. These 2,505 resources represented 20 different agencies, municipalities, and private contractors. There were a number of local fire departments including: Camptonville Fire Department, Downieville Fire Department, North San Juan Fire Department, Foothill Fire Department, and Dobbins Oregon Fire Department. In addition to these various agencies there were many State and local agencies involved which included: State OES, CHP, CalTrans, Red Cross, PG&E, Pacific Bell; and from Yuba County, the Sheriff's Department, OES, Road Maintenance, Water Department, and Public Works.

Figure 1–6 Yuba County Fire History 1900 to Present



1.10 Summary of Local Mitigation Activities

DOHFPD has taken a lead role in the development of solutions to the fire problems in the Yuba County foothills since the late–1980s.

The District participates in:

- Public education and awareness regarding emergency preparedness, safety and preparedness, public information regarding all hazards.
- a Chipping Program funded by Proposition 40 to reduce fuel load next to residences and commercial properties;
- the Fuel Reduction Program which is an ongoing program to reduce the fuel loads along heavily traveled District roads to a minimum 10 feet fuel buffer on both sides of the road;
- the FireSafe Council which developed the Community Wildfire Protection Plan;
- the Quincy Library Group Defensible Fire Protection Zone to reduce fuel loads within the District, and
- participated in and helped bring to fruition the Oregon Ridge fuel break, the Soper Wheeler treatment area, and the CHY treatment area.

Specific Mitigation Activities:

In 1999, a grant from the State Water Resource Board to the Yuba Watershed Protection and FireSafe Council to fund the reduction of fuel load along 12 miles of county roads, US Forest Service masticated and burned approximately 160 acres in the Camptonville area, fuel reduction occurred in private land around the communities of Camptonville and Brownsville, in addition to two fire education meetings.

In 2001, a foothills specific evacuation plan was developed through a grant from the BLM by the FireSafe Council.

In 2002, with a grant from the USFS fuel reduction on private lands in the Brownsville and Camptonville area transpired.

In 2003, the fuel load was reduced on 4.8 miles of Yuba County roads with a grant from the BLM. In addition 50 miles of road was prioritized for future fuel load reduction. Five water tanks with a 10,000 gallon capacity were purchased with grant funds from the HR 2389 and placed one in each of the northern County fire districts. Community plans for Oregon House, Strawberry Valley, and Camptonville were drafted with BLM grant monies. In addition coloring books from primary school fire education and evacuation packets were developed. Grant funds from the USFS were used to complete the fuel reduction around the community of Camptonville. BLM grant monies were expended for the coordination and development of digital information for fire mitigation planning and shared with Yuba County OES, USFS, and CDF.

In 2003, preliminary information developed in concert with DWR, local government agencies, and the USACE on the Lower Feather River Floodplain Mapping Study identified freeboard deficiencies on the Bear River, WPIC levees, and geotechnical issues with the Yuba River levee between Highway 70 and the 1986 break. As a result Yuba County conducted a problem identification study for the levees that were identified as deficient.

In 2004, fuel reduction was performed on 5.2 miles of Yuba County roads with a grant from the BLM. In 2005, a Yuba Watershed Protection Coordinator was hired using monies from a HR

2389 to assist in development of grant projects and future plans and applications. Funds from a HR 2389 grant were used to reduce the fuel load on 3.8 miles of Yuba county roads.

The Fire Safe Project that has the most impact for our District was funded by Proposition 40 to fund a residential chipping program for selected foothills areas of Yuba County. The program provides identification of fire prone areas and fuels reduction to address potential hazards. Homeowners that may be interested in participating in this voluntary service contact the Project Coordinator following the clearance of vegetation within 100 feet of their home and outbuildings. This mitigation project has been extremely successful and the Fire Safe Council intends to continue to implement the project to reduce and mitigate high fire threat areas in the District and foothill communities. The County of Yuba has implemented a public road fire reduction vegetation clearance project funded by Proposition 40 to reduce fuels and increase visibility on 3.8 miles of Yuba County roads.

In 2006, HR 2389 grant monies were used to provide initial funds for a Yuba County Fire Prevention Officer position. The position is responsible for assistance to the Yuba County Planning Department and fire districts to review, enforce and apply fire code in the design and construction of new developments and implementation of fire codes and standards county-wide.

Oregon Peak Lookout Tower

The Oregon Peak Lookout Tower was constructed around 1937 and was used during World War II as a lookout for Japanese aircraft and incendiary balloons. CDF used the tower as a manned fire lookout until 1992, when budget constraints forced CDF to close the tower. The communities of Dobbins and Oregon House began to man the tower voluntarily, under the direction of the CDF Volunteer in Prevention (VIP) program. Until that time, the VIP program had not been used to man fire towers, but rather to issue burn permits, help with emergency communications, assist with some clerical work, make fire safety presentations to schools, and staff emergency information phone lines during major events.

From 1996 through 1999, CDF staffed the lookout half the time, with the other half still manned by volunteers. Following the 199 fire season and the retirement of the paid lookout, two of the volunteers, Greg Crompton and Greg Grabowski, took over the volunteer staffing program. The volunteers continued to man the tower during the beginning and end of the fire season, both before and after CDF paid staff arrived to man the tower.

Currently, the tower is primarily manned by volunteers. The worth of continued operation of the lookout tower was highlighted during the Marysville Fire in August 2006. It was the lookout tower that made the initial report, and its early sighting allowed for fast response that was able to limit and mitigate the damage caused by the fire.

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2 Prerequisites

The plan identifies and evaluates specific local hazard mitigation strategies to be considered by DOHFPD and its planning support for those strategies developed by its Committee.

The strategies presented are deemed appropriate and effective by recommendation of the DOHFPD Mitigation Planning Committee and the Yuba County Hazard Mitigation Stakeholders and individual local agencies and private groups.

Upon acceptance by the DOHFPD Board of Directors, the selected strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of federal, state and local funding, and general procedures to obtain that funding.

The plan is based upon the DOHFPD Hazard Vulnerability Analysis (HVA) that considers the natural, technological, and human-caused risks to which the Agency is vulnerable. The plan describes strategies that the District may utilize as their capabilities to mitigate those hazards.

It is understood that the mitigation strategies adopted in this plan are recommendations only, and they must be approved and funded in order to be implemented as official Hazard Mitigation Strategies. They must be implemented by the DOHFPD, either solely or in conjunction with other governmental agencies or special districts.

2.1 Adoption by Dobbins-Oregon House Fire Protection District

DMA 2000 Requirements – Prerequisites
Adoption by the Local Governing Body **Requirement §201.6(c)(5)**: [The local hazard mitigation plan **shall** include] documentation that the plan has formally adopted by the governing body of the jurisdiction requesting approval of the plan (e.g., City Council, County Commissioner, Tribal Council). **FMA Requirement §78.5 (f)**: Documentation of formal plan adoption by the legal entity submitting the plan (e.g., Governor, Mayor, County Executive, etc.
Element A. Has the local governing body adopted the plan? B. Is supporting documentation, such as a resolution, included?

This section describes the adoption of the development of a Hazard Mitigation Plan for DOHFPD. The purpose of formally adopting this Plan is to secure support from agency directors and participating agencies and to implement the mitigation actions identified in the Plan.
The sample resolution will be replaced with the Adoption Resolutions signed by the Chairman of the Board of DOHFPD and submitted to the Governor's Office of Emergency Services and the Department of Homeland Security, Federal Emergency Management Agency (FEMA).

2.1.1 Description of Local DOHFPD Government adoption of the LHMP

DOHFPD adopted the Dobbins-Oregon House Multi-Hazard Mitigation Plan at a special meeting of the DOHFPD Board of Directors on August 9, 2007 at 6:30 PM. The public was notified of the meeting and invited to provide comments. The resolution was passed unanimously.

2.1.2 Documentation of Local DOHFPD Government adoption of the LHMP

Document 2-1 DOHFPD Resolution of Adoption

RESOLUTION No. 2007-10
A RESOLUTION OF THE BOARD OF DIRECTORS OF THE DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT ADOPTING THE DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT MULTI-HAZARD MITIGATION PLAN

WHEREAS, The Dobbins-Oregon House Fire Protection District has developed a hazard mitigation plan by identifying hazards and potential mitigation projects and working with Stakeholders; and

WHEREAS, P.L. 106-390, THE Disaster Mitigation Act of 2000 amended the Stafford Disaster Relief and Emergency Assistance Act to require hazard mitigation planning; and

WHEREAS, a Federal Emergency Management Agency approved Multi-Hazard Mitigation Plan must be adopted by the local government agency as a requirement and as a condition of funding for disaster mitigation funds after November 1, 2004; and

WHEREAS, the Dobbins-Oregon House Fire Protection District fully participated in the Yuba County Multi-Hazard Mitigation Project consistent with the federally prescribed planning process for the development of the Multi-Hazard Mitigation Plan; and

WHEREAS, the California Governor's Office of Emergency Services and the Federal Emergency Management Agency have reviewed and approved the Dobbins-Oregon House Fire Protection District Multi-Hazard Mitigation Plan contingent upon this official adoption of the DOHFPD Board of Directors;

NOW, THEREFORE BE IT RESOLVED, The Dobbins-Oregon House Fire Protection District adopts the Dobbins-Oregon House Fire Protection District Multi-Hazard Mitigation Plan as an official plan; and

BE IT FURTHER RESOLVED, the Dobbins-Oregon House Fire Protection District will submit this adoption resolution to the Governor's Office of Emergency Servics and the Federal Emergency Management Agency, Region IX for approval of the DOHFPD Multi-Hazard Mitigation Plan

PASSED AND ADOPTED by the Board of Directors of the Dobbins-Oregon House Fire Protection District on the 9th day of ~~June~~ August 2007 by the following vote:

AYES: Rick Brown, Jon Norris, Mike Hatherly, Lloyd Appleby, Pete Hammontree
NOES: ~~0~~
ABSTAIN: ~~0~~
ABSENT: ~~0~~

8/9/7

Attested: Lani Person Secretary 8/9/07

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3 Planning Process

DMA 2000 Requirements – Planning Process
Requirement §201.6(b): An open public involvement process is essential to the development of an effective plan.

The Dobbins Oregon House Multi-Hazard Mitigation Plan (DOHFPD-MHMP) was prepared and funded as a component of the Yuba County Pre-Disaster Mitigation (PDM) Project funded by the Federal Emergency Management Agency's (FEMA), Hazard Mitigation Grant Program (HMGP). The development of the MHMP was coordinated and staffed by the Dobbins Oregon House Fire Protection District Planning Committee and the Yuba County Multi-Hazard Mitigation Project staff.

The District Plan was a product of the commitment and collaboration among Federal, State, and local agencies to address hazards, vulnerability and potential risks to the communities of Dobbins and Oregon House served by the DOHFPD. The partnerships established among stakeholders provided opportunities for the identification of resources and collaboration to prioritize mitigation strategies for the District and the participating stakeholders to address hazards and disasters affecting the community and the County**.**

Across the District, natural disasters have led to increased levels of injury, property damage, interruption of business and government services and even death. The impact of disasters can result in regional economic consequences. The District recognizes the consequences of disasters and the need to reduce the impacts of these hazards. The impact of fires has caused significant property damage and affected the people and economy of the District.

An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process included an opportunity for the public to comment on the plan during the drafting stage and prior to plan approval; opportunity for neighboring entities, and other interested parties, to be involved in the planning process; and the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information. Each step in the planning process was built upon the previous step, providing a high level of assurance that the mitigation actions proposed by the participants and the priorities of implementation are valid. The following provides a narrative description of the plan preparation process.

3.1 Purpose of Plan

In early 2004, the California Governor's Office of Emergency Services sent a notice to all California local governments to make them aware that hazard mitigation project funding was at risk due to the changes in the federal law regarding hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000) amended the Robert T. Stafford Disaster Relief and Emergency Services Act (Stafford Act). Two provisions of DMA 2000 were to establish a national program for pre-disaster mitigation and to require local governments, including special districts, to have a local hazard mitigation plan in order to be eligible to receive assistance from the Stafford Act mitigation programs. Rules and regulations codifying this Act establish the minimum hazard mitigation requirements for States, Tribes, and local entities, and state that a jurisdiction must have a federally approved LHMP in order to receive mitigation assistance for any federally declared disaster after November 1, 2004.

The Dobbins Oregon House Fire Protection District was invited to participate in the Yuba County Multi-Hazard Mitigation Project. As active members of the Yuba Watershed and Fire Protection Council - Fire Safe, members of the District attended and participated in the Project Kick-off on August 13, 2004. The County received a FEMA Hazard Mitigation Grant to develop a multi-agency, multi-hazard mitigation plan for the County of Yuba. The project was funded through the HMGP Pre-Disaster Mitigation Project to meet the DMA 2000 requirement and enable county local governmental agencies to develop hazard mitigation plans to qualify for grant funds available from FEMA.

The purpose of the District's hazard mitigation plan is to identify those hazards which affect the District and its constituents, identify the risks these hazards pose, and integrate hazard mitigation strategies into the activities and programs of the District to the extent practical. The Plan will assist the District and Yuba County toward minimizing the damaging effects of future disasters and maintain eligibility for certain hazard mitigation funds.

This Plan is intended to serve other purposes, including the following:

- **Enhance Public Awareness and Understanding** – to help District constituents better understand the natural and human-made hazards that threaten public health, safety, and welfare; economic vitality; and the operational capability of the District.

- **Promote Compliance with State and Federal Program Requirements** – to ensure that the District complies with laws and regulations that encourage or mandate special districts to develop comprehensive mitigation plans.

- **Enhance Local Policies for Hazard Mitigation Capability** – to provide the policy basis for mitigation actions that should be promulgated by the district to create a more disaster-resistant future.

- **Achieve Regulatory Compliance** – to qualify for many federal and state grant programs, the District must have an approved mitigation plan to receive a project grant. The District must have an approved plan by November 1, 2004 to be eligible for HMGP funding for Presidential declared disasters after this date. (Plans approved after November 1, 2004 will still make the District eligible to receive PDM and HMGP project grants).

3.1.1 Disaster Mitigation Act of 2000

Federal legislation has historically provided funding for disaster response and recovery and for hazard mitigation. In response to the rising cost of responding to, and recovering from, disasters, the President signed the Disaster Mitigation Act of 2000 (Public Law 106-390) on October 30, 2000.

By amending the Robert T. Stafford Disaster Relief and Emergency Services Act, (Public Law 93-288) (the Stafford Act), the Disaster Mitigation Act of 2000 reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. The law encourages a planning process based on cooperation between state and local authorities, and the community-at-large, to reduce the effects of disasters. The law rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance.

As a condition of receiving federal hazard mitigation funding, local governments must develop and submit a mitigation plan that outlines processes for identifying the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government. The Plan meets the requirements of Section 322 of the Stafford Act, which calls for local governments to prepare mitigation plans. "Special districts, is included in the definition of "local government". The Dobbins-Oregon House Fire Protection District is a special district.

Under the regulations implementing this law, states and local governments must have an approved, adopted hazard mitigation plan in place by November 1, 2004. The Federal Emergency Management Agency (FEMA) is responsible for reviewing and approving state and local hazard mitigation plans.

3.1.2 Definition of Hazard Mitigation

Planning:
The act or process of making or carrying out plans; specify: the establishment of goals, policies, and procedures for a social or economic unit.

Mitigate:
1. to cause to become less harsh or hostile
2. to make less severe or painful

Hazard Mitigation is any sustained action taken to eliminate or reduce long term risk to human life, property and the environment posed by a hazard.

Hazard Mitigation Planning is the process of making any sustained plan or course of action taken to reduce or eliminate long-term risk to people and property from both natural and technological hazards and their effects. The planning process includes establishing goals and recommendations for mitigation strategies.

Hazard Mitigation may occur during any phase of a threat, emergency, or disaster. Mitigation can and should take place during the preparedness (before), response (during), and recovery (after) phases.

The process of hazard mitigation involves evaluating the hazard's impact, and the identification and implementation of actions and projects to minimize the impact of disasters.

3.2 Documentation of the Planning Process

DMA 2000 Requirements – Planning Process
Documentation of the Planning Process **Requirement §201.6(b)**: In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process **shall** include: (1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval (2) An opportunity for neighboring communities, local and regional agencies that have authority to regulate development, as well as business, academia and other private non-profit interests to be involved in the planning process; and (3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information
Element A. Does the plan follow a narrative description of the process to prepare the plan B. Does the plan include who was involved in the planning process? (For example, who led the development at the staff level and were there any external contributors such as contractors? Who participated in the plan committee, provided information, reviewed drafts, etc.?) C. Does the plan indicate how the public was involved? (Was the public provided an opportunity to comment on the plan during the drafting stage and prior to plan approval?) D. Was there an opportunity for neighboring communities, agencies, business, academia, nonprofits, and other interested parties to be involved in the planning process? E. Does the planning process describe the review and incorporation, if appropriate, of existing plans, studies, reports, ad technical information?

Table 3–1 DOHFPD Mitigation Planning Timeline

Mitigation Planning Timeline	
Organize Resources	September 2004 – January 2005
Assess Risks	December 2004 – April 2005, January 2006
Develop Goals	April 2005 – February 2006
Plan writing, development, and review	February 14, 2006 – May 2007
Plan Adoption	August 2007

The dates reflected in Table 3-1 describes the period of time when the bulk of work for each stage was accomplished. Development of the hazard mitigation plan was an ongoing process and did not necessarily follow a linear pattern. The risk assessment, after being largely complete in 2005, was reassessed following the winter storm event of 2006. The plan writing, development and review included opportunities for the public to provide comments. The process for creating the DOHFPD was part of the Yuba County Multi-Hazard Mitigation Project.

An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process included an opportunity for the public to comment on the plan during the drafting stage and prior to plan approval; opportunity for neighboring entities, and other interested parties, to be involved in the planning process; and the review and incorporation, if appropriate, of existing plans, studies, reports, and technical information. Each step in the planning process was built upon the previous step, providing a high level of assurance that the mitigation actions proposed by the participants and the priorities of implementation are valid.

The plan identifies and evaluates specific local hazard mitigation strategies to be considered by the District and its planning support for those strategies developed by its Committee. The strategies presented are deemed appropriate and effective by recommendation of the District Hazard Mitigation Planning Committee and the Yuba County Office of Emergency Services and individual local agencies and private groups.

Upon acceptance by the District Board of Directors, the selected strategies will be further developed for funding and implementation by the lead agencies. The plan describes the potential sources of Hazard Mitigation Strategy funding, and general procedures to obtain that funding. The plan is based upon the District Hazard Vulnerability Analysis (HVA) that considers the natural, technological, and human-caused risks to which the District is vulnerable. The plan describes strategies that the District may utilize as their capabilities to mitigate those hazards. It is understood that the mitigation strategies adopted in this plan are recommendations only, and they must be approved and funded in order to be implemented as official Hazard Mitigation Strategies. They must be implemented by the District, either solely or in conjunction with other governmental agencies or special districts.

The use of Geographic Information System (GIS) was integral to the planning process. GIS was utilized to locate assets at risk and identify hazard areas. For information on the use of GIS for developing the DOHFPD and Yuba County Multi-Jurisdictional Multi-Hazard Mitigation Plan, see the attached document.

3.2.1 Narrative Description of the Planning Process

In early 2004, the California Governor's Office of Emergency Services sent a notice to all California local governments to make them aware that hazard mitigation project funding was at risk due to the changes in the federal law regarding hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000) amended the Robert T. Stafford Disaster Relief and Emergency Services Act (Stafford Act). Two provisions of DMA 2000 were to establish a national program for pre-disaster mitigation and to require local governments, including special districts, to have a local hazard mitigation plan in order to be eligible to receive assistance from the Stafford Act mitigation programs. Rules and regulations codifying this Act establish the minimum hazard mitigation requirements for States, Tribes, and local entities, and state that a jurisdiction must have a federally approved LHMP in order to receive mitigation assistance for any federally declared disaster after November 1, 2004.

The Dobbins Oregon House Fire Protection District was invited to participate in the Yuba County Multi-Hazard Mitigation Project. As active members of the Yuba Watershed and Fire Protection Council - Fire Safe, members of the District attended and participated in the Project Kick-off on August 13, 2004. The County received a FEMA Hazard Mitigation Grant to develop a multi-agency, multi-hazard mitigation plan for the County of Yuba. The project was funded through the HMGP Pre-Disaster Mitigation Project to meet the DMA 2000 requirement and enable county local governmental

agencies to develop hazard mitigation plans to qualify for grant funds available from FEMA. On December 2, 2004, the Yuba County Office of Emergency Services (OES) made a presentation to the Dobbins-Oregon House Fire Protection District's Board of Directors and members of the public outlining the need for a specific LHMP for the District. At the meeting the District agreed to form a Hazard Mitigation Planning Committee (the Committee). The District will act as lead agency and enlist the aid of concerned citizens and groups within the District's boundaries to identify potential hazards. Yuba County OES will provide technical assistance in writing and development of the plan.

The District LHMP was added as an agenda item at the monthly Board meeting. All District meetings are open to the public. The goal of the Committee is to assess potential hazards that may affect the District, recommend and facilitate the implementation of hazard mitigation strategies, and encourage interagency hazard mitigation coordination to reduce the loss of life and property caused by natural and man-made hazards. Since the communities of Dobbins and Oregon House lay within the District boundaries, the District plan will include these communities in the risk assessment, vulnerability assessment, and identification and analysis of mitigation goals and objectives.

On November 3, 2005, DOHFPD Board of Directors passed a resolution of support (Document 3-1) authorizing the development of the DOHFPD Multi-Hazard Mitigation Plan.

The County of Yuba solicited participation of the District in order to complete a LHMP for the county's special districts and the unincorporated communities of Dobbins and Oregon House. The planning process described below reflects activities pertaining only to the District and its portion of the Yuba County Multi-Jurisdictional Multi-Hazard Mitigation Plan.

The District's Mitigation Planning Committee was formed with the responsibility for:

- Ensuring the efficient progress of the planning process;
- Developing the hazard identification and risk assessment;
- Coordinating public involvement and input;
- Providing data and information to develop the plan;
- Meeting monthly to review progress and address the development needs of the plan;
- Develop mitigation strategies; and
- Develop possible mitigation actions.

Document 3-1 DOHFPD Resolution of Support

BEFORE THE BOARD OF:

DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT

IN RE:
RESOLUTION TO SUPPORT)
PARTICIPATION IN THE)
YUBA COUNTY MULTI-HAZARD)
MITIGATION PLAN DEVELOPMENT) RESOLUTION NO 2005-12

WHEREAS, the DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT desires to enter into a cooperative relationship with the County of Yuba by identifying hazards and potential mitigation projects in order to develop a comprehensive countywide multi-hazard mitigation plan to meet federal requirements for mitigation planning

WHEREAS, P.L 106-390, the Disaster Mitigation Act of 2000, amended the Stafford Disaster Relief and Emergency Assistance Act to require hazard mitigation planning.

WHEREAS, local governments and governmental entities are required to have a federally approved hazard mitigation plan to be eligible for disaster mitigation funding, for any disaster declared after November 1, 2004, and the County of Yuba is developing a countywide multi-hazard mitigation plan.

NOW, THEREFORE, BE IT RESOLVED, The DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT agrees to enter a cooperative relationship, and provide support towards the development of the Yuba County Multi-Hazard Mitigation Plan.

PASSED AND ADOPTED BY THE DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT, State of California, at the regular meeting thereof on the 3rd, day of November 2005, by the following vote:

AYES: RICK BROWN, PETE HAMMONTRE, JOHN NORRIS & GENE SCHEEL
NOES: NONE
ABSENT: CORA PETERSON

Date: Dec 1, 2005

Pete Hammontre, Chairman

Margie York, Secretary

3.2.2 Persons, Companies, Agencies, & Organizations Involved in the Planning Process

The DOHFPD was fortunate to receive the staff support and financial assistance from the County of Yuba Pre-Disaster Mitigation Grant Project to develop this local multi-hazard mitigation Plan. Consultant services and technical assistance provided through the County grant were critical to the development of the project providing the volunteer fire district with support to conduct all phases of plan development. The Stakeholders provided essential information and resources for the planning process. The overall benefit in the development of the Plan was the collaboration and sharing perspectives, knowledge and experience in emergency management and providing public safety. The Plan was put to the test throughout the process, by the actual implementation of projects using information produced in the process such as mapping of assets, water resources and the identification of fire prone areas which guides mitigation projects undertaken by the Fire Safe Council.

DOHFPD Hazard Mitigation Planning Committee

Pete Hammontre	DOHFPD, Committee Chair
Cora Peterson	DOHFPD, Secretary, Plan Coordinator
Hal Stocker	Supervisor, 5th District, County of Yuba
Mike Butler	DOHFPD Fire Chief
ShirLee Belisle	Yuba County Hazard Mitigation
Stacey Brucker	Yuba County Hazard Mitigation
Michael Colvin	Yuba County Hazard Mitigation
Pat Beecham	Yuba County Hazard Mitigation, Project Director
David Slayter, RG	Yuba County Hazard Mitigation, GIS Coordinator
Theresa Hayes	Dimensions Unlimited
Jack Bartlett	CSA 2, community member
Hal Stocker	Supervisor, 5th District, County of Yuba
Gene Scheel	Board Member, DOHFPD
Shirley Crompton	Dobbins Oregon House ACT Committee, Secretary
Joe Wylie	Lake Francis Resort
Glen A. Nader	Yuba Watershed & Fire Protection Council (Fire Safe)
Steve Onken	Yuba County Water Agency
Lisa Cunningham	Volunteer firefighter
John Murphy	Chief Foothill Fire Department
Andrew Vodden	Yuba County Hazard Mitigation
Don Walker	Yuba Feather Lions Club
Jim Johnson	Fire Safe Council
Steve Durfor	Yuba County Sheriff

3.2.3 Public Involvement in the Planning Process

The public was invited to attend several meeting sponsored by the District, DOACT, the Yuba Feather Lions and the Yuba County MHMP for the development of the DOHFPD Plan. Committee members published articles in two local newspapers and flyers delivered through the schools. Networking with other emergency professionals was accomplished through coordination with the Fire Safe Council as well as the monthly Yuba County Stakeholders Meetings.
To ensure public involvement in the planning process, the DOHFPD was responsible for scheduling, publicizing and organizing public meetings. Copies of Committee and public meeting attendance sheets and meeting agenda are include in **Appendix C**. Below is a summary of the planning process and public involvement:

The DOHFPD Hazard Mitigation Project was on the agenda for all meetings of the Yuba Watershed Protection & Fire Safe Council. Members of the planning committee met to discuss the project throughout the planning process:

►Dobbins-Oregon House Fire Protection District
Chairman: Pete Hammontre 692-0345 Cora Peterson Secretary

The following summaries reflect the Planning Process undertaken by the Planning Committee and the Stakeholders in the development of the DOHFPD Plan. The District was the first volunteer agency to attempt to develop a local hazard mitigation plan and participate in the development of the Fire strategy for the Yuba County Multi-Hazard Mitigation Planning Committee in cooperation with the Yuba County Watershed and Fire Protection Council **(Fire Safe)**.

- September 2, 2004;
  Project staff Buck Weckman and Stacey Brucker provided an overview of DMA 2000 and presentation at the District Board meeting with a sample resolution to support of the PDM Plan, Maps of the District which included the 100 year floodplain and the fire history of the area. Maps were provided to the District Fire Chief, Mike Butler to review and make corrections to maps for roads and critical infrastructure as needed.

- October 7, 2004;
  Request to hold a planning meeting to discuss Plan development and grant support for local efforts was requested as follow up to the Community Meeting at the request of Supervisor Hal Stocker. Pete Hammontre will work with Project Director, Pat Beecham and the District to provide guidance and technical assistance in Plan development. The County Staff will and work with the District in the Plan development and use this as an opportunity for a Plan template. The DOHFPD volunteer resources and staff will assist and participate in the Plan development and sponsor Community Meetings. Staff scheduled a follow up Planning meeting to address limited resources and project needs. The District Committee will work with the County Project staff to develop the District Plan with assistance from Cora Petersen, Pete Hammontre and Jack Bartlett. The County will consider using the DOHFPD as a template for fire districts for incorporation into the Yuba County MHMP Plan.

- December 2, 2004
  Jack Bartlett, Committee member and Community Service Area (CSA) 2 requested a presentation and mapping, of the Ure Mountain area to support the development of evacuation planning, risk assessment and mitigation project proposals. Pat Beecham and Stacey Brucker attended the meeting and provided information regarding the PDM grant and DMA 2000. The CSA Area 2 is interested in developing a proposal for identification of additional evacuation routes and mitigation planning efforts for the community. The next meeting, sponsored by the CSA 2 and the HMGP Staff for other residents and landowners is scheduled for December 19, 2004 to discuss evacuations and fire mitigation.

- December 19, 2004
  Jack Bartlett sponsored a meeting for CSA 2 residents regarding fire hazards, evacuations and mitigation planning for the area. Maps of the area developed by the Hazard Mitigation Staff were provided for the meeting to help identify potential evacuation routes and areas to consider for vegetation clearance and emergency access. A sub-committee was formed to conduct a door to door survey regarding the potential fire mitigation and work with the DOHFPD to identify fire hazards and risks as well as the resources available to residents living in the Ure Mountain area.

- January 7, 2005
  Committee sent out correspondence stating the DOHFPD has formed a Mitigation Planning Committee to work on the planning process with the County for the DOHFPD MHMP to research and compile information for the District and the Community.

- January 26, 2005;
  The DOHFPD Planning Committee came to the Yuba County MHMP office to work on their plan and to develop a schedule for the plan development and Community Meeting to address the ranking of hazards. A letter of invitation was developed to send to all stakeholders in the DOHFPD.

- February 8, 2005
  Pete Hammontre attended the **Stakeholders Meeting** and provided a summary of the planning process and the DOHFPD Work Plan. Received input from the Committee Work groups regarding special projects for fire, flood and emergency response and communication. The Outreach media information was developed for the upcoming Community Meeting scheduled for February 25, 2005. Stakeholders were provided sample copies of the DOHFPD draft outline for comment.

- February 23, 2005
  Staff worked with DOHFPD to develop a presentation for DOACT on Thursday evening regarding the planning process as part of the development of the Yuba County Plan for the Community of Dobbins and Oregon House.

- February 24, 2005
  Pete came to work with the staff to finalize the power point presentation to be given for the community at the DOACT meeting. Revisions were made to the Community profile and questionnaire for the meeting and for the Plan.

- February 24, 2005;
  DOACT Meeting Pete presented the DOHFPD Mitigation Plan draft following the County Presentation regarding the Yuba County MHMP at a community meeting sponsored by DOACT. The Yuba County Water Agency partnered with the DOHFPD and the Yuba County Staff for a mitigation project presentation attended by approximately 50 community members.

- March 8, 2005
  Project Staff met with Cora Petersen and Pete Hammontre to continue work on their plan. Both planning team members stayed to attend the **Stakeholders Meeting** and present a project summary report and solicit input and participation among stakeholders for projects.

  - March 23, 2005
    Meeting with DOHFPD to work on plan development, review asset vulnerability, GPS mapping and review comments for the Community Meeting.

- March 30, 2005
  Planning Committee work with Yuba County MHMP Staff for plan development, inventory assets and identification of evacuation routes for District.

- April 12, 2005
  Stakeholders Meeting DOHFPD presentation and work on hazard identification, risk assessment and other hazards with fire element and mitigations strategies. Planning and identification of projects with Fire Safe and Yuba County MHMP. Will provide template for other fire districts and coordinate mitigation strategies with Foothill Fire in Brownsville.

- May 10, 2005
  Presentation to **Stakeholders Meeting** regarding the Yuba County Rural Fire Joint Powers Agency JPA regarding emergency communications and the future planning for the rural fire districts in communications dispatch.

- June 14, 2005
  Presentation from Cora Peterson to **Stakeholders** regarding the development of the Districts LHMP and potential Hazard Mitigation Projects and activities. Work with sub-committees in areas of special interest.

- July 12, 2005
  Community Meeting Presentation on the DOHFPD Plan and the and the coordination with the Fire Safe Council in the Community. Use of GIS in Hazard Mitigation and fire planning to support grant requests and projects.

- August 24, 2005
  Plan update for **Stakeholders Meeting** and discussion regarding priority for fire mitigation and coordination with other special districts to support emergency management and mitigation.

- October 11, 2005
  Stakeholders Meeting- Local planning process update and sharing technical information with other special districts. Using GIS and asset information from the DMA 2000 process to support grant requests and planning for growth in the community such as evacuation routes and emergency access.

- February 14, 2006
  Stakeholders Meeting participation for county planning, fire asset inventory and resource identification. Discussion and ranking of hazards and risk assessment for the county and in local communities.

- April 11, 2006
  Stakeholders Meeting to discuss the Community Wildfire and Protection Plan and Fire Mitigation Goals and meeting with Yuba County MHMP Staff for plan writing and development.

- July 11, 2006.
  Stakeholders Meeting presentation and work group for Plan development and writing.

- August 8, 2006
  Update and summary of DOHFPD Plan and fire strategies for the Plan and local grant activities discussion.

- October 12, 2006
  Stakeholders Community Meeting presentation and discussion regarding the effectiveness of Hazard Mitigation Planning, Fire Safe Projects, and the success of the Chipper Program and WUI in the Marysville Road Fire.
- January 9, 2007
  Attend **Stakeholders** meeting and participate in the discussion of prioritizing mitigation strategies with fire districts. Presentation from LAFCO regarding the district boundaries.

►Dobbins-Oregon House Action Committee (DOACT) Community Support Organization
Contact: Greg Crompton 692-0110

- Sept. 23, 2004; 6:30 p.m.
  Project Staff, Pat Beecham, Stacey Brucker and David Slayter attended the regular meeting and presented a power point presentation about the county wide PDM Project and County Hazard Mitigation Plan. A map of the area and a sample resolution were provided with questionnaires and information to consider in the hazard ranking.

- October 12, 2004;
  Greg Crompton met with Project Staff to review the draft plan and provide comments and suggest agencies for inclusion in the meeting and process. Greg confirmed the October 28th meeting with DOACT and discussed the planning process and considerations for potential projects.

- October 28, 2004; 6:30 p.m.
  Project Staff met with Greg Crompton and Planning Committee. Stacey and David attended the community meeting to answer future questions and concerns from the community about their responsibility with the county wide PDM plan and potential hazard mitigation projects.

- November 11,2004
  Request for community input and called with message requesting a copy of the minutes for Oct. 28 meeting and additional input.

- February 24, 2005
  Regular monthly meeting of DOACT. The meeting was attended by over 60 community members receiving presentations from DOHFPD, Yuba County Water Agency and Yuba County Hazard Mitigation Project.

- February 25, 2005;
  Communication and discussion regarding the DMA 2000 Community Process. Greg and Shirley Crompton to request copies of the meetings we have attended, Sept. 23, 2004, Oct. 28, 2004 and Feb. 24, 2005.

Evacuation Routes- Emergency Access/Egress
Community Service Area 2 Sub-committee of DOACT/ DOHFPD
Contact: Jack Bartlett and Jean Scheel

- December 12, 2004; Second meeting with the local CSA ,members and citizens to discuss the possibility of developing designated evacuation route, access through private lands and public lands that are not presently accessible, south access to UC Davis Field Station, west to Collins Lake Reservoir, northeast through the Fellowship of Friends

- November 16, 2004; Met again with the residents, gave the committee maps of the local area which they used to discuss possible evacuation routes.

- November 22, 2004; Pat and David from our office met with Jack and local land owner, Tom Richards about developing an evacuation route through his private property. Spent a long time actually driving the proposed routes and evaluating the possibilities for use.

- January 30, 2005; Jack Bartlett arranged a community meeting to discuss the hazardous conditions that effected persons living in the area during the 1997 and 1999 fires. The problem is that there is only one way in and one way out and that road is very narrow, in some places only one vehicle can pass at a time. The need for an evacuation plan is foremost on the minds of the residents.

- February 24, 2005; Jean Scheel resented the committee's findings on developing evacuation routes to the general public at the monthly DOACT meeting in Dobbins.

►Yuba County Foothills Joint Powers Agency
Contact: Pete Hammontre, 692-0245
Cora Peterson, 692-1554

- February 28, 2005: Meeting of Yuba County Foothills JPA with representatives from: CDF; Chief Richard Webb, County Fire; and Capt. Long, Yuba County Sheriff. A draft joint-agency Interoperability MOU was presented. An agreement was made with CDF to proceed with the development of a low-band repeater/dispatch center for the foothills using an unused frequency and equipment owned by CDF. The American Red Cross (ARC) ECRV 4712 was available for attendees to view and observe a demonstration of communication capabilities and services.

►**Yuba Feather Lions Club – Community Support Organization**
Contact: Don Walker 692-2110

- October 12, 2004;
  Don Walker met with YC project staff to discuss the community meeting to be held at the up coming Yuba Feather Lions Club, the meeting will be Oct. 26, 2004. The Lions Club will distribute and post fliers to advertise the outreach meeting in the Dobbins-Oregon House area. The purpose of the meeting is to discuss hazards and risk assessments with residents many who lived in the area and suffered damages of the Williams and Pendola Fires and request participation for the Yuba County MHMP and the DOHFPD MHMP. Don provided a list of contacts to invite to the meeting.

- Oct. 13, 2004;
  Don called to confirm the date of the Community Meeting and requested a change of the meeting to Monday October 25, 2004, 7pm to accommodate other meeting schedules and outreach information to encourage public attendance.

- October 25, 2004
  Pat Beecham and Stacey Brucker gave a presentation and information regarding the DMA 2000 process and the County Plan. Meeting was attended by 12 community residents. A power point presentation was made with an overview of the DMA 2000 Hazard Mitigation Plan and the project undertaken by the County and DOHFPD. The attendees were encouraged to review the Maps of their community and the Fire History Map as well as the 100 year Floodplain Maps. The maps were provided to the Fire Department to use to identify the areas for fire mitigation, fuel reduction projects and road layers. The color maps were used for public information and the two black and white maps for revisions to roads an for identification of emergency access for the DOHFPD.

►**Lake Frances Grange - Community Support Organization**

- October 29, 2004 The Grange is a community organization designed to provide service and support in the community. Although they are not an official governmental body, they actively provide service to the public in this rural setting, the Grange provides service to first responders in fires in the area. They use a building provided by the Marysville Joint Unified School District. The purpose of the meeting was to inform and involve the local residents in the LHMP planning process. A map of the Dobbins/Oregon House area was provided to the members with the request to add information to provide a complete description of hazards.

The Dobbins-Oregon House Fire protection District was a major participant in the Yuba County Multi-Hazard Mitigation Project and a regular participant in the project's Stakeholder Committee Meetings. Table 3-1 lists the meetings attended by a representative of DOHFPD. Agendas, presentations, and sign-in sheets for these meetings can be found in **Appendix A**

Table 3–2 DOHFPD Attendance at Yuba County Stakeholder Meetings

Meeting Date	Description
February 8, 2005	The meeting began with an overview of DMA 2000 and the Yuba County Hazard Mitigation Project. The group then broke into workshops. Session one included workshops on: • Developing School Hazard Mitigation Plans • Developing Local Hazard Mitigation Plans with an emphasis on fire districts and special districts • State, City, and County Agencies The second session included workshops on: • Developing a communication plan • Developing an evacuation plan • Updating HAZUS GIS/Risk Assessment Inventory
March 8, 2005	Presentations at this meeting included: • An overview of the DMA 2000 process • A status report on the efforts by Yuba County Hazard Mitigation Staff to identify and assess risks, prioritize activities to reduce damage to property and prevent loss of life from natural and man-made disasters using FEMA's HAZUS GIS software • A report on the hazard mitigation event and agency meeting calendar • A presentation by the Yuba County Water Agency soliciting input for the development of the YCWA Multi-Hazard Mitigation Plan The Emergency Response and Communication, Fire Planning, and Flood Planning committee work groups met following the presentations. A workshop of Plan Development Assistance Workshop on Resource Identification and Risk Assessment using worksheets from FEMA How-To Guide #2.
April 12, 2005	Presentations at this meeting included: • An update on efforts by agencies on the progress being made in the DMA 2000 process and report on the meeting calendar. • An update on the Yuba County Multi-Hazard Mitigation Plan • A presentation by Don Snow of Union Pacific Railroad on chemical transportation safety, specifically emergency response, preparedness, and mitigation on the rail lines • Dan Walker of the California Department of Transportation provided information regarding CalTrans asset inventory and resources in Yuba County • A presentation from the Yuba County Water Agency on the progress being made on the YCWA Hazard Mitigation Plan • A presentation from the Dobbins-Oregon House Fire Protection District on the progress being made on the DOHFPD Hazard Mitigation Plan The Emergency Response and Communication, Fire Planning, and Flood Planning committee work groups met following the presentations.

May 10, 2005	Presentations at this meeting included: • An update on the DMA 2000 process and Yuba County's Progress on the project • A presentation from Jack McHatton, Chief of Telecommunications and Bill Pennington, Assistant Chief of Communications form the Governor's Office of Emergency Services regarding statewide communications and communications support and planning for emergency response, preparedness, and mitigation • A presentation from Captain Alan Long of the Yuba County Sheriff's Department Communications Division on emergency procedures and daily operations • Pete Hammontre, chairman of the Yuba County Rural Fire Joint Powers Agency provided information regarding emergency communications support and future planning efforts • An update on HAZUS risk assessment analysis and review worksheet information, asset inventory, and future planning efforts The Emergency Response and Communication, Fire Planning, and Flood Preparedness committee work groups met following the presentations.
June 14, 2005	Presentations at this meeting included: • An report on the progress being made on the Yuba County Hazard Mitigation Project • A presentation from Jim Johnson of the Yuba Watershed Protection & Fire Safe Council regarding strategic plans and a summary goals, objectives, and projects • The Dobbins Oregon House Fire Protection District gave a presentation regarding development of the DOHFPD local hazard mitigation plan and potential hazard mitigation projects and activities • A discussion of the planning for the July evening workshop designed to share information regarding successful mitigation planning efforts and project information to the public The Emergency Response and Communication, Fire Planning, and Flood Preparedness committee work groups met following the presentations.
July 12, 2005	Presentations at this meeting included: • An overview of the Yuba County Hazard Mitigation Project and progress on the County Plan • An overview of the Yuba Watershed Protection & Fire Safe Council's planning process and collaboration with resource agencies to identify community fire prevention strategies and support the Yuba County Project • A report on the capabilities of GIS for fire mapping, mitigation strategies, and projects. A summary of GIS project work and fire hazard models • An overview of the mission of Beale Air Force Base and it current efforts including planning, exercises, anti-terrorism efforts, and coordination of resources to support local community mitigation efforts and projects. • Planning for an evening workshop to allow the community the opportunity to provide input to stakeholders The Emergency Response and Communication, Fire Planning, and Flood Preparedness committee work groups met following the presentations.

August 24, 2005	Presentations at this meeting included: • Planning updates from the Dobbins Oregon House Fire Protection District and Wheatland Elementary School District • A presentation form the Yuba County Health and Human Services Department on public health preparedness planning • A discussion on risk assessment and ranking priorities The meeting was continued to a special evening Stakeholder meeting designed to share information regarding successful mitigation planning efforts and project information to the public. Recognition of the efforts of Stakeholders representing federal, state, and local agencies in the planning process and to mitigate damage and impact from natural and man-made disasters. The meeting included presentations from: • Three Rivers Levee Improvement Authority – an update on South Yuba County levee projects • Yuba County Water Agency - • Yuba County Health & Human Services Department – Public Health & Safety • Pacific Gas & Electric Company – What You Should Know About Power Interruptions • American Red Cross, Three Rivers Chapter – The American Red Cross in Your Community • Yuba Watershed Protection & Fire Safe Council – Fire Prevention & Mitigation in Yuba County
September 13, 2005	Presentations at this meeting included: • An overview of the August 24 community meeting • An update on hazard mitigation plans • A presentation from the Yuba County Office of Emergency Services on the efforts being made by Yuba County to assist in the Hurricane Katrina fallout • An update from Martha Griese, CEO of the American Red Cross Three Rivers Chapter on the efforts of ARC to assist in the aftermath of Hurricane Katrina • A workshop discussion of the Yuba County Hazard Mitigation Project and risk assessment/ranking priorities
October 11, 2005	Presentations at this meeting included: • Updates from the Dobbins Oregon House Fire Protection District, Yuba County Water Agency, and Reclamation District 784 on their progress towards completion of local hazard mitigation plans • Updates from the Yuba County Office of Emergency Services and American Red Cross Three Rivers Chapter on Hurricanes Katrina and Rita • A review of risk assessment/ranking of priorities and a discussion of potential mitigation projects • A discussion of evacuation routes for high hazard areas from Yuba County Undersheriff Steve Durfor and Yuba Watershed Protection and Fire Safe Council Coordinator Glenn Nader

February 14, 2006	Presentations at this meeting include: • A discussion of fire risk assessment and asset inventories for fire departments • An update from the Yuba County Water Agency on damages sustained as a result of the 2006 winter storm event • A report on risk assessment and hazard mitigation and the role of GIS in these processes • A workshop discussion of potential hazard mitigation projects
April 11, 2006	Presentations at this meeting included: • An update on the damages sustained by participating agencies as a result of the 2006 winter storm event and the status of FEMA funding to aid in recovery • A presentation outlining the Community Wildfire Protection Plan and its role in helping with the hazard mitigation process • A summary overview of the Yuba County Multi-Jurisdictional Multi Hazard Mitigation Plan • A workshop discussion of potential fire mitigation projects • A technical assistance workshop for those agencies ready to begin writing their plan annexes
July 11, 2006	Presentations at this meeting included: • Three Rivers Levee Improvement Authority and Plumas Lake update • Disaster Mitigation Act of 2000 update • Community Wildfire Protection Plan update by the Yuba Watershed Protection & Fire Safe Council • Woodleaf Evacuation and Sheltering plans by the United States Forest Service • A presentation on the formation of a Pandemic Flu Sub-Committee by the Yuba County Health & Human Services Department • A report on the development of the Yuba County Hazard Mitigation Website • A report on the progress of the Yuba County Mitigation Plan and Special District Annexes
August 8, 2006	Presentations at this meeting included: • A roundtable discussion of each agencies progress on their respective hazard mitigation efforts • An update on Pandemic Influenza from the Yuba County Health & Human Services Department • An overview of the hazard mitigation program from Fletcher Jackson and Jim Wyatt of FEMA and Robert Mead from State OES

October 12, 2006	Presentations at this meeting included: • A roundtable discussion moderated by Yuba County Supervisor Mary Jane Griego on the Yuba County Hazard Mitigation Project • An update from the Yuba County Health and Human Services Department on their ongoing public safety plans The meeting was continued to a special evening Stakeholder meeting designed to share information regarding successful mitigation planning efforts and project information to the public. Recognition of the efforts of Stakeholders representing federal, state, and local agencies in the planning process and to mitigate damage and impact from natural and man-made disasters. The meeting included:: • Awards given to members of the Yuba County Sheriff's Department in honor of their efforts to save lives during a structure fire in the City of Marysville, the Trauma Intervention Program for aiding those displaced by the fire, the Yuba Watershed Protection & Fire Safe Council for its efforts in hazard mitigation planning, and Greg Crompton for his efforts in hazard mitigation planning • A presentation from Matt Furtado, Yuba County Fire Planner, on fire mitigation and safety • A report on the Yuba Watershed Protection & Fire Safe Council's chipping program • An overview of the Yuba County Hazard Mitigation Project • An update on the FEMA flood mapping process • A presentation from the Yuba County Water Agency on its Forecasted-Coordinated Operations project • A report from the Three Rivers Levee Improvement Authority on the current status of the levee improvement projects
January 9, 2007	Presentations at this meeting included: • A report on the efforts of the Yuba County Office of Emergency Services • An update on the South Yuba County levee projects by the Three Rivers Levee Improvement Authority • A report and presentation to the Stakeholders group regarding the Yuba County Municipal Services Review being undertaken by the Local Agency Formation Commission and collaboration with the mitigation project and process
February 13, 2007	Presentations at this meeting included: • Status reports from each attending agency on their progress on the hazard mitigation project • A discussion of the plan review process for the Dobbins-Oregon House, Yuba County Water Agency, And Yuba County Hazard Mitigation Plans • A review of proposed fire mitigation projects and strategies

Public Input
Public input was encouraged at all the meetings mentioned above. Surveys, handouts, and open questions/answer forums have made possible the opportunity for citizens and stakeholders to participate in the planning process. Press releases were posted in the local newspapers.

Numerous DMA 2000 Presentations have taken place by the State of California OES, Yuba County OES and DOHFPD to educate and bring forth the importance of hazard mitigation.

Feedback:
The County prepared the DOHFPD LHMP with regular input from the Committee. Components of the DOHFPD LHMP involved compiling research, reviewing studies and projects conducted in the area, and gathering input from the public. Comments from the Committee and the public were used to update the District LHMP and produce the final document.

3.2.4 Opportunities for Participation by Neighboring Communities and Other Stakeholders

Public Input Stakeholders

Invitees	Invitees
Foothill Ace Hardware Co 13860 Willow Glen Rd Oregon House, CA 95962	Communications Support Group P.O. Box 806 Oroville, CA 95965
Brown's Gas Co. 423 4th Street Marysville, CA 95901	Colgate Power Plant P.O. Box 176 Dobbins, CA 95935
Collins Lake Recreation Area P.O. Box 300 Oregon House, CA 95962	Don Walker, President Yuba Feather Lions Club P.O. Box 538 Oregon House, CA 95962
Ellis Udwin Foothill Fire Protection District P.O. Box 332 Brownsville, CA 95919	Foothill Towing 9351 Marysville Rd Oregon House, CA 95962
Gary Kavanagh, Battalion Chief Loma Rica Station 11845 Loma Rica Road Marysville, CA 95901	Mr. Greg Holman Board of Directors, FOF P.O. Box 1119 Oregon House, CA 95962
Jean Pierson Loma Rica Browns Valley Community Services District 7307 Pochert Way Browns Valley, CA 95918	Fire Chief John Murphy P.O Box 332 Brownsville, CA 95919-0332
Mr. G. Keith Chambers CHY Company 200 Litton Drive #210 Grass Valley, CA 95945	Lewis Carroll School P.O Box 894 Oregon House, CA 95962
Lake Francis RV Park P.O. Box 39 Dobbins, CA 95935	Lynne Cardoza, Principal P.O Box 129 Dobbins School Lane Dobbins, CA 95935
Marc Zamora Smartville Fire Protection District P.O Box 294 Smartville, CA 95977	Fire Chief Matt Coony P.O. Box 134 Camptonville, CA 95922-0134
Office of Emergency Services 915 8th Street, Suite 117 Marysville, CA 95901	Rev. William Taylor Oregon House Community Church P.O. Box 475 Oregon House, CA 95962

Rev. Jack Overbey 10386 Old Dobbins Road Dobbins, CA 95935	Mr. Phillip Lucas Facilities Manager, FOF P.O. Box 1171 Oregon House, CA 95962
Plumas Tahoe National Forest Arnold Olson 15924 Highway 49 Camptonville, CA 95922-049	Rick Cunningham Soper-Wheeler Co. 19855 Barton Hill Rd Strawberry Valley, CA
Rita Ortega Camptonville CSD P.O. Box 327 Camptonville, CA 95922-00327	Sacred Heart Catholic Church 10316 Old Dobbins Road Dobbins, CA 95935
Captain Alan Long Yuba County Sheriff's Dept. 215 5th Street, Suite 150 Marysville, CA 95901	Hal Stocker, 5th District Supervisor 915 8th Street, Suite 109 Marysville, CA 95901
Thousand Trails RV Park P.O. Box 190 Oregon House, CA 95962	

Agency Coordination
Dobbins-Oregon House Action Committee (DOACT)
American Red Cross Three Rivers Chapter (ARC)
Yuba County Water Agency (YCWA)
California Department of Forestry and Fire Protection (CDF Cal Fire)
Yuba Watershed and Fire Protection Fire Safe Council
Yuba County Administrative Services
Yuba County Office of Emergency Services (OES)
Yuba County Sheriffs Department
U.S. Department of Forestry
California Department of Transportation (CalTrans)
California Highway Patrol (CHP)

3.2.5 Review and Incorporation of Existing Plans, Reports, Studies, and Technical Information

Table 3–3 Existing Documents

Existing Program/Policy/ Technical Documents	DOHFPD
Comprehensive Plan	X
Insurance Service Office (ISO)	X
Growth Management Plan	N/A
Capital Improvement Plan/Program	N/A
Flood Damage Prevention Ordinance	N/A
Floodplain Management Plan	N/A
Flood Insurance Studies or Engineering studies for streams	N/A
Hazard Vulnerability Analysis	X
Emergency Management Plan	X
Zoning Ordinance	N/A
Building Code	N/A
Drainage Ordinance	N/A
Critical Facilities maps	X
Existing Land Use maps	X
Elevation Certificates	N/A
State Fire Plan	X
HAZUS	X

NA: not applicable

Community Wildfire Protection Plan (CWPP): The CWPP was developed to help communities clarify and refine its priorities for the protection of life, property, and critical infrastructure in the wildland–urban interface as they develop and implement forest management and hazardous fuel reduction projects. The CWPP requires that the DMA 2000 process be applied and documented to apply for state and federal funding for the CWPP.

The **Dobbins-Oregon House Community Action Plan** was created through the combined efforts of the communities of Dobbins and Oregon House, the Yuba-Sutter Economic Development Corporation, Yuba County, and the Untied States Forest Service. In August 2000, the USFS awarded a grant to assist the Dobbins/Oregon House community to identify its goals to the future. Two public meetings were held and a planning committee of residents was formed. Therefore, the Community Action Plan represents a unified voice of the Dobbins/Oregon House citizens. It was created through a grass roots organization, which included a wide spectrum of the diverse people living there and intended to exclude no one.

Recent changes to **Public Resources Code** (PRC) 4291 expand the defensible space clearance requirement maintained around buildings and structures from 30 feet to a distance of 100 feet. These guidelines are intended to provide property owners with examples of fuel modification measures that can be used to create an area around buildings or structures to create defensible space. A defensible space perimeter around buildings and structures provide firefighters a working environment that allows them to protect buildings and structures from encroaching wildfires as well as minimizing the chance that a structure fire will escape to the surrounding wildland. These guidelines apply to any person who owns, leases, controls, operates, or

maintains a building or structure in, upon, or adjoining any mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or any land that is covered with flammable material, and located within a State Responsibility Area. The vegetation surrounding a building or structure is fuel for a fire. Even the building or structure itself is considered fuel. Research and experience have shown that fuel reduction around a building or structure increases the probability of it surviving a wildfire. Good defensible space allows firefighters to protect and save buildings or structures safely without facing unacceptable risk to their lives. Fuel reduction through vegetation management is the key to creating good defensible space.

Terrain, climate conditions and vegetation interact to affect fire behavior and fuel reduction standards. The diversity of California's geography also influences fire behavior and fuel reduction standards as well. While fuel reduction standards will vary throughout the State, there are some common practices that guide fuel modification treatments to ensure creation of adequate defensible space:

- Properties with greater fire hazards will require more clearing. Clearing requirements will be greater for those lands with steeper terrain, larger and denser fuels, fuels that are highly volatile, and in locations subject to frequent fires.

- Creation of defensible space through vegetation management usually means reducing the amount of fuel around the building or structure, providing separation between fuels, and or reshaping retained fuels by trimming. Defensible space can be created removing dead vegetation, separating fuels, and pruning lower limbs.

- In all cases, fuel reduction means arranging the tree, shrubs and other fuels sources in a way that makes it difficult for fire to transfer from one fuel source to another. It does not mean cutting down all trees and shrubs, or creating a bare ring of earth across the property.

- A homeowner's clearing responsibility is limited to 100 feet away from his or her building or structure or to the property line, which ever is less, and limited to their land. While individual property owners are not required to clear beyond 100 feet, groups of property owners are encouraged to extend clearances beyond the 100 foot requirement in order to create community-wide defensible spaces.

- Homeowners who do fuel reduction activities that remove or dispose of vegetation are required to comply with all federal, state or local environmental protection laws and obtain permits when necessary. Environmental protection laws include, but are not limited to, threatened and endangered species, water quality, air quality, and cultural/archeological resources. For example, trees removed for fuel reduction that are used for commercial purposes require permits from the California Department of Forestry and Fire Protection. Also, many counties and towns require tree removal permits when cutting trees over a specified size. Contact your local resource or planning agency officials to ensure compliance.

The methods used to manage fuel can be important in the safe creation of defensible space. Care should be taken with the use of equipment when creating your defensible space zone. Internal combustion engines must have an approved spark arresters and metal cutting blades (lawn mowers or weed trimmers) should be used with caution to prevent starting fires during periods of high fire danger. A metal blade striking a rock can create a spark and start a fire, a common cause of fires during summertime.
Vegetation removal can also cause soil disturbance, soil erosion, regrowth of new vegetation, and introduce non-native invasive plants. Always keep soil disturbance to a minimum, especially on steep slopes. Erosion control techniques such as minimizing use of heavy equipment, avoiding stream or gully crossings, using mobile equipment during dry conditions, and covering exposed disturbed soil areas will help reduce soil erosion and plant regrowth.
Areas near water (riparian areas), such as streams or ponds, are a particular concern for protection of water quality. To help protect water quality in riparian areas, avoid removing vegetation associated with water, avoid using heavy equipment, and do not clear vegetation to bare mineral soil.

Multi–Hazard Emergency Operations Plan (EOP): The EOP was developed to address the planned response and recovery to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies including terrorist's threats in Yuba County. The EOP establishes the emergency management organization required to mitigate any significant emergency or disaster affecting Yuba County. It identifies the policies, responsibilities, and procedures, required to protect the health and safety of Yuba County communities, public and private property, and the environmental effects of natural and technological emergencies and disasters. The EOP also establishes the operational concepts and procedures associated with field response to emergencies using the Incident Command Structure (ICS) for the emergency response and recovery.

The EOP is designed to establish the framework for compliance and implementation of the California Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS) for Yuba County. It is intended to facilitate multi–agency, multi–jurisdictional coordination among Yuba County, local governments, special districts, and state agencies in emergency operations. The EOP also serves a secondary purpose as a planning and training reference. The EOP is designed to be used in conjunction with the State of California Emergency Plan.

Nevada-Yuba-Placer Fire Management Plan 2005: This Fire Management Plan is a product of the implementation of the State Fire Plan. The State Fire Plan provides an analysis procedure utilizing, in part, computer based geographical information data that is validated by experienced fire managers to assess fire fuel hazards and risks in order to design and implement mitigating activities. The Nevada-Yuba-Placer Unit (NYP) Fire Management Plan provides background information, fuels and fire data, proposed projects, and individual Battalion reports outlining mitigating activities commonly carried out each year. In addition, this year's Fire Plan is compliant with the requirements of the Healthy Forests Restoration Act (HFRA), signed into law in December of 2003, as a Community Wildfire Protection Plan (CWPP). Those agencies represented on the signature page have agreed to the content of this plan as part of a collaborative effort to identify projects and possibly influence how additional federal funds may be distributed for projects on non federal lands.

NYP is one of 21 administrative Units within the California Department of Forestry and Fire Protection. NYP faces many challenges, not the least of which is two of its counties, Placer and Nevada, are two of the fastest growing counties within the state. According to the 2000 National Census, Placer County is the 20th fastest growing county within the nation.

Yuba County Hazardous Materials Emergency Response Plan: The HAZMAT Plan was developed to protect the public, environment, and property from an accidental release involving chemicals. The plan provides the methods and procedures that decision makers, county regulatory personnel, and response agencies will use for the management, tracking, containment, removal, and disposal of the hazardous materials from a hazardous materials incident in Yuba County.

The HazMat Plan establishes policies, authorities, roles and responsibilities, and procedures required to protect the health and safety of Yuba County's populace, environment, and public and private property from the effects of hazardous material releases. It also establishes the emergency response organization and operational concepts for hazardous materials incidents occurring in Yuba County. The plan establishes the procedures associated with the activation of the City of Marysville Fire Department's Hazardous Materials Response Team.

The plan serves as the principal guide for agencies of Yuba County, its incorporated cities, and other local governmental entities in mitigating hazardous material incidents. The plan is consistent with SEMS and is intended to facilitate multi–agency and multi–jurisdictional coordination between local, state, and federal agencies in a hazardous materials emergency.

In addition to being a reference document the HazMat plan is an operational plan.

Disaster Plan for Domestic Animals: As a direct result of Hurricane Katrina at least 50,000 pets died because no emergency plans were in place to save them. Many pets were abandoned at the time, but hundreds of people ended up stranded in their homes after deciding not to abandon their animals when emergency officials said they could not take them along. The legislature unanimously passed the Pets Evacuation and Transportation Standards (PETS) Act which was signed into law October 6, 2006.

The PETS Act requires local and state emergency preparedness authorities to include in their evacuation plans how they will accommodate household pets and service animals in case of a disaster. Local and state authorities must submit these plans in order to qualify for grants from FEMA

The Yuba–Sutter Disaster Plan for Domestic Animal Disaster Assistance was developed to protect domestic pets and livestock in Yuba and Sutter Counties in situations that require evacuation. YSDADA provides on–going Disaster Preparedness classes for the general public, so people will be aware of the needs of their pets and farm animals when faced with a possible evacuation order. Additional classes are conducted by cooperating entities such as Humane Society of the United States (HSUS), California Department of Forestry (CDF), State Department of Water Resources (DWR), Yuba County Office of Emergency Services (OES), the American Red Cross (ARC), and others. Volunteers set up displays at local malls and community events. YSDADA is leading the effort to incorporate an Animal Component in the Emergency Response Plans of both Sutter and Yuba County.

Louisiana—Service animals such as guide dogs are supposed to be evacuated with their owners. Household pets in carriers and cages will be allowed on public transportation if they do not endanger people. State and local emergency officials are suppose d to find animal shelter and draft regulation as well as set up an identification system so pets can be reunited with their owners should they become separated during storms.

Small Pox Plan: The Yuba County Public Health Department developed the Smallpox Preparedness, Response, and Recovery Plan to prepare for the unlikely event of an outbreak of smallpox disease in Yuba County. The Plan is a regularly updated, operational working document, divided into three phases:

- Preparedness,
- Response, and
- Recovery.

The preparedness phase is currently under implementation, while the response and recovery phases will be implemented in the event of a smallpox outbreak. The Plan is adapted from the Interim Smallpox Response Plan and Guidelines of the Center for Disease Control and Prevention recommendations of the Advisory Committee on Immunization Practices, and the Interim Smallpox Preparedness, Response, and Recovery Plan and Guidelines created by Los Angeles County.

Yuba County Water Agency's (YCWA) Emergency Action Plan (EAP): The EAP is intended to minimize the threat to public safety and to minimize the response time to an impending or actual sudden release of water from New Bullards Bar Dam, Our House Dam, and Log Cabin Dam. The Plan may also be used to provide notification when flood releases will create major flooding. Agency personnel who work on or near the project facilities or who have responsibilities under this plan shall be familiar with the notification procedures.

All facilities are inspected visually three times per week. Downstream flows are monitored continuously by the YCWA Colgate Power Plant when the Agency operators are manning the plant. In their absence monitoring of stream flows is accomplished by PG&E personnel at their Wise Power Plant.

Steven Onken, Power Systems Manager, is responsible for assessing the severity of the situation. If failure is in progress or is imminent, the operators have the authority to implement the plan. If the problem is a potential failure, Steven Onken is authorized to implement the plan. In Steven Onken's absence, Curt Aikens, General Manager, is authorized to implement the plan.

Notify the same personnel in a flood or increased flow event. Identify the dam by name, the nature of the problem, and the discharge rate.

CalTrans Highway Damage Emergency Operations Plan: Sets forth an outline of responsibilities within an organized structure, which will facilitate quick and efficient response to any emergency to minimize impacts to the roadways, the traveling public, and regional commerce. This organized structure is centered on the District's Emergency Operations Center (EOC). The maintenance Program is the lead for Major Highway Damage emergency response.

The Emergency Operations Center will provide a central focal point for all Major Highway Damage emergency activities within the District. It will provide uniformity of response no matter what the emergency, and it will provide consistency is disseminating information to CalTrans management, CalTrans Headquarters EOC, local county EOCs, and to the public.

Particular situations may require the Department to operate differently than described in the plan. Emergency procedures are intended to be flexible enough to ensure that all situations are properly handled.

A vast majority of emergencies are handled at the District level without the need to activate the Headquarters Emergency Operations Center (EOC). However, when an extraordinary disaster occurs, The Headquarters Emergency Management Director or Designee activates the Headquarters EOC to maintain a statewide CalTrans picture, coordinate resources, and

information needed to support the directly impacted district(s), and coordinates activities with the State Office of Emergency Services (OES), State Operations Center (SOC) or Regional Operations Center (REOC). Emergency response policies are:

- Minimize the loss of life and property.
- Protect state–operated facilities and the state highway system.
- Maintain current damage and operations information.
- Restore damaged state transportation system facilities as soon as possible.
- Assign appropriate personnel at key disaster sites to oversee operations and to provide consistent, verified public information to the District and headquarters Public Information Officers, and the media.
- Cooperate with other key agencies at the local, state, and federal level.
- Keep the Director, the Governor's Office of Emergency Services, and the Legislature informed of transportation–related issues and the status of CalTrans resources during an emergency.
- Conduct periodic drills and exercises to test communication systems for preparedness, including notifying individuals on the fan–out chart and critique response, practice solving emergency management problems, validate current operating procedures, and practice multi–agency involvement coordinated by the Governor's Office of Emergency services. The plan identifies the organizational structure of the Major Highway Damage EOC, roles and responsibilities of each function in the EOC and emergency response levels.
- Maintain/restore traffic operations/good movement.

The District 3 EOP is based on the Standardized Emergency Management System (SEMS). The basic framework of SEMS incorporates the use of the Incident Command System (ICS), multi–agency or interagency coordination, the State's master mutual aid agreement and mutual aid program, the operational area concept and the Operational Area Satellite Information System (OASIS).

When an emergency situation occurs, the EOC manager will be notified immediately by dispatch, if during normal business hours, by the Duty Officer, or by other staff reporting the emergency, and is responsible for immediately assessing the severity of the emergency and determining the level of response for the EOC staff.

The **Department of Forestry and Fire Protection** (CDF/CAL FIRE) is re-mapping fire hazard severity zones for lands that the State has fiscal responsibility for wildland fire protection (State Responsibility Area) and is preparing Very High Fire Hazard Severity recommendations for local responsibility areas. This mapping is being done under authorities defined in PRC 4201 and GC 51175. This effort incorporates improved wildland fire behavior science, data sets, and understanding of structure ignition mechanisms during conflagrations.

The California Building Commission adopted the Wildland-Urban Interface codes in late 2005 with an effective date of January 2008. These new codes include provisions for ignition resistant construction standards in the wildland urban interface. The updated fire hazard severity zones will be used by building officials to determine appropriate construction materials for new buildings in the wildland urban interface. The updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of sale of property. It is likely that the fire hazard severity zones will be used by local government as they update the safety element of general plans.

The map adoption process will include public hearings in 56 of the 58 counties. These hearings should be completed by fall and the maps are scheduled for adoption under CCR Title 14 regulation by December 31, 2007, in time for the January 2008 building codes.

3.3 Local Capabilities Assessment

DMA 2000 Requirements – Planning Process
Local Capabilities Assessment **Requirement §201.4(c)(3)(ii)**: Of the Federal Register Interim Final Rule 44CFR Parts 201 and 206 states "[The **State** mitigation strategy **shall** include] a general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities. The following elements should be covered as they provide information that assists the State to meet the required planning element in the State's mitigation plan. More importantly, providing this information benefits the local community in their planning efforts. A "needs improvement" score will not preclude either plan from being recommended for approval by OES or approved by FEMA
Element A. Does the plan provide a description of the human and technical resources available within this jurisdiction to engage in a mitigation planning process and to develop a local hazard mitigation plan? B. Does the plan list local mitigation financial resources and funding sources (such as taxes, fees, assessments, or fines) which affect or promote mitigation within the reporting jurisdiction? C. Does the plan list local ordinance which affect of promote disaster mitigation, preparedness, response or recovery within the reporting jurisdiction? D. Does the plan describe the details of in-progress, ongoing, or completed mitigation projects and programs within the reporting jurisdiction?

The County of Yuba, the County provided the support and technical assistance in the planning process and for the local capabilities assessment for the Dobbins-Oregon House Fire Protection District as a participating special districts and local governmental in the Yuba County Multi-Hazard Mitigation Plan. Supported by the Governor's Office of Emergency Services, county operational areas have participated in a Local Capabilities Assessment as part of the State of California's Hazard Mitigation Plan.

Ranked as one of the poorest counties in the State, Yuba County's average income is $28,460 compared the States average income of $47,493 according to the 2000 U.S. Census Bureau. The annual tax revenue collected and redistributed from the State ranges from 17 to 19 dollars per 100, which is disbursed to provide limited essential services for public safety and human services.

Most governmental agencies and special districts in Yuba County are faced with severe fiscal constraints which impact their ability to address disasters and emergencies. The DOHFPD Volunteer Fire District provides critical emergency and structural fire response with very limited budgets and resources. The fiscal constraints limit the agencies ability to participate in pre-disaster or hazard mitigation projects unless grant funds or resources are provided to the district.

Fire mitigation projects been identified by DOHFPD and through the collaborative efforts of the Fire Safe Council. Typically mitigation strategies are identified after the disaster or emergency has destroyed property and lives impacting the community resources.

DOHFPD is a volunteer fire district with a an annual budget of slightly over $100,000 providing service to over 2340 residents according to the US Census Bureau in 2000, with an increased population of recreational visitors in the thousands due the recreation resorts located in the District. DOHFPD provides structural and wildland fire protection and implements fuel reduction and education programs with an all volunteer organization. The District is supported by a Fire Auxiliary that operates an all-volunteer Thrift Store and sponsors a host of fundraisers to raise funds for the additional improvements and programs implemented by the district and department.
The District formed a hazard mitigation planning committee to develop the goals and objectives for the DOHFPD Plan and participants in the Yuba County MHMP Project. The purpose of the planning committee was to identify hazards, propose, develop and implement hazard mitigation strategies to protect the residents of Dobbins and Oregon House.

Yuba County Multi-Hazard Mitigation Project funded this project and sponsored the outreach activities required for the planning process and development of the Plan. The County has provided support and technical assistance for our District and involved over 32 local government agencies as stakeholders in developing and implementing hazard mitigation plans to benefit our Community.

By participating in this county-wide planning process and involving our local district, we have experienced the benefit of coordination of resources, and collaboration which will increase our local capability and assist our rural community in implementing effective hazard mitigation projects.

Effectiveness of Local Hazard Mitigation Policies, Programs, and Capabilities

The effectiveness of our local hazard mitigation programs can be documented in the project benefits and value of property protected as a result of effective hazard mitigation projects and measures implemented over the years through our fire prevention and fuel reduction projects. The mutual aid system and the support from allied fire agencies provides for effective fire suppression and resources for other emergencies and disasters.

Fire mitigation and fuels reduction programs have effectively prevented and reduced severity of wildland fires in the District. The State mandate for reduction in fuels and one hundred foot clearance in the State Responsibility Area (SRA) has provided for effective fire prevention and mitigation. Vegetation clearance such as the Chipper Program has reduced fire threat and risk of residential structures and has proven to increase protection from fires, when supported by fuel

reduction projects such as the Wildfire Urban Interface (WUI) Projects. The ISO Rating for the District will improve as mitigation projects are implemented in the community.

Participating in the development of the Yuba County Multi-Hazard Mitigation Planning Project provided an opportunity for our districts to work with other governmental agencies and the public potential hazards and identify hazard mitigation strategies and projects to make our community a safe place to live.

3.3.1 Local Capabilities

The DOHFPD Hazard Mitigation Planning Committee identified current capabilities available for implementing hazard mitigation activities. The Capability Assessment portion of the mitigation plan identifies administrative, technical, legal and fiscal capabilities. This includes a summary of departments and their responsibilities associated to hazard mitigation planning as well as codes, ordinances, and plans already in place associated with hazard mitigation planning. The second part of the Assessment provides the fiscal capabilities that may be applicable for the District to identify financial resources to implement identified mitigation action items.

3.3.2 Fiscal Resources

The table below shows specific financial and budgetary tools available to the DOHFPD such as community development block grants; capital improvements project funding; authority to levy taxes or assessments for specific purposes; fees for water, sewer, gas, or electric services; impact fees for homebuyers or developers for new development; ability to incur debt through general obligations bonds; and withholding spending in hazard-prone areas. The District may be eligible for grant funding for future mitigation depending on availability of funds.

Table 3–4 DOHFPD Financial Resources

Financial Resources	Y/N	Comments
Community Development Block Grants (CDBG)	Y	* CDBG Grants- no current grant funding
Capital improvements project funding	N	
Authority to levy taxes or assessments for specific purposes	Y	Fire Protection Assessment
Fees for water, sewer, gas, or electric service	N	
Impact fees for homebuyers or developers for new developments/homes	Y	Fire Mitigation Fees
Incur debt through general obligation bonds	N	
Incur debt through special tax and revenue bonds	Y	Requires 218 vote
Incur debt through private activity bonds	N	
Withhold spending in hazard-prone areas	N	

* Subject to grant from State
** Subject to voter approval

FUNDING RESOURCES
The County of Yuba through its 2003-2004 Pre-Disaster Mitigation Grant provided funding through staff support, printing/copying, mapping, data processing and analysis for the development of the DOHFPD LHMP.

Funding mechanisms related to DOHFPD projects implemented under the DOHFPD LHMP may include the funds from the Pre-Disaster Mitigation (PDM) Program, the Hazard Mitigation Grant Program (HMGP), Fire Management Assistance, and the Public Assistance Program. Funding may also be provided by the U.S. Bureau of Land Management, High Sierra Resource Conservation Service, Yuba Watershed and Fire Protection Fire Safe Council. Donations are received through the DOHFPD Fire Auxiliary. No assessment fees were used to develop the Plan.

Assistance to Firefighters Grant (AFG) Program is a program of the Preparedness Directorate's Office of Grants and Training in the U.S. Department of Homeland Security, grants are awarded to fire departments to enhance their ability to protect the public and fire service personnel from fire and related hazards. Three types of grants are available: Assistance to Firefighters Grant (AFG), Fire Prevention and Safety (FP&S), and Staffing for Adequate Fire and Emergency Response (SAFER). This Website provides a description of the three types of grants available and offers resources to help fire departments prepare and submit grant requests. The primary goal of the Assistance to Firefighters Grants (AFG) is to meet the firefighting and emergency response needs of fire departments and nonaffiliated emergency medical services organizations. Since 2001, AFG has helped firefighters and other first responders to obtain critically needed equipment, protective gear, emergency vehicles, training, and other resources needed to protect the public and emergency personnel from fire and related hazards. The National Preparedness Directorate in the Federal Emergency Management Agency administers the grants in cooperation with the U.S. Fire Administration. For fiscal year 2005, Congress reauthorized the Assistance to Firefighters Grants for an additional 5 years through 2010.

3.3.3 Local Human, Technical, & Financial Resources

The following is (1) a summary of existing positions their responsibilities related to hazard mitigation planning and implementation; and (2) a list of existing planning documents and regulations related to mitigation efforts within DOHFPD. The administrative and technical capabilities of DOHFPD, as shown in the table below, provides an identification of the staff, personnel, and department resources available to implement the actions identified in the mitigation section of the Plan. Specific resources reviewed include those involving technical personnel such as planners/engineers with knowledge of land management practices, engineers trained in construction practices related to building and infrastructure, planners and engineers with an understanding of natural or human-caused hazards, floodplain managers, surveyors, personnel with GIS skills and scientists familiar with hazards in the community.

3.3.3.1 Administrative & Technical Capacity

Table 3–5 Administrative & Technical Capacity

Position	Y/N	Department/Agency
Planner(s) or engineer(s) with knowledge of land development and land management practices	N	District Board – hire private consultant as needed
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	N	Hire from outside agency when needed
Planners or Engineer(s) with an understanding of natural and/or human-caused hazards	N	Hire expertise as needed
Floodplain manager	N	Hire as needed
Surveyors	N	Hire as needed
Staff with education or expertise to assess the community's vulnerability to hazards	N	Use county, CDF, or USFS resources or hire as needed
Personnel skilled in GIS and/or HAZUS	N	Use county resources
Scientists familiar with the hazards of the community	N	Use county resources
Emergency manager	N	Fire Chief
Grant writers	N	DOHFPD Grant writing committee

3.3.4 Local Ordinances & Regulations

The DOHFPD operates as a special district governed by adopted District By-laws and Constitution. Local county ordinances, regulations and State mandates are enforced by Yuba County and the State of California (CDF- CAL Fire) as applicable . The public safety and mitigation elements applied in the District are established in the Yuba County Ordinance Code, and the Yuba County General Plan.

3.3.4.1 Yuba County Housing Element

Yuba County Housing Element III-3 at p. III-5

Yuba County regulates the type, location, density, and scale of residential development, primarily through the zoning ordinance. The DOHFPD contains lands zoned neighborhood commercial, community commercial, public, and agriculture/rural residential. Some residential structures and properties are located near flood hazard areas and have been impacted by localized flooding.

Flood Hazards: Flood hazards present the main environmental constraint to the development of housing in the County. Several areas of the County are subject to flooding from the Yuba River, Bear River, Feather River, tributaries of these rivers, and from storm runoff. Nearly the entire western portion of the County, including the urbanized areas of Linda and Olivehurst, is within either a 100-year or 500-year flood hazard area. In order to minimize the potential damage resulting from flooding, the County Standards of Building Construction contain standards for construction of buildings in flood hazard areas. If a proposed building site is in a location that has a flood hazard, the Building Official requires that the development:
(1) Be designed (or modified) and anchored to prevent the flotation, collapse, or lateral movement of the structure, or portions of the structure due to flooding.
(2) Use construction materials and utility equipment that are resistant to flood damage.
(3) Use construction methods and practices that will minimize flood damage.
(4) Provide adequate drainage in order to reduce exposure to flood hazards.
(5) Construct utilities and facilities, including sewer, gas, electrical, and water systems on the site in such a manner as to minimize or eliminate flood damage.
In addition, the Department of Public Works reviews all subdivision applications to ensure that:
(1) All such proposed developments are consistent with the need to minimize flood damage.
(2) Adequate drainage is provided so as to reduce exposure to flood hazards.
(3) Adequate drainage is provided so as not to increase the exposure to flood hazards of adjacent lands.
(4) All utilities and facilities, including sewer, gas, electrical, and water systems are located, elevated The County has successfully used its flood protection standards to allow residential development to proceed, as exemplified by the Plumas Lake Specific Plan, currently under construction in western Yuba County about ten miles south of Marysville.

3.3.4.1.1 Yuba County General Plan Land Use at 5-83

Flood Protection
Sections maybe found in Chapter 10 of the Yuba County Ordinance, attached, for additional information.

3.3.4.1.2 Yuba County General Plan Land Use at 7-43

10-OSCG Carefully regulate development projects located in floodplains, unstable soil areas, high fire hazard areas, areas of steep slope, and other areas with similar constraints.
35-OSCO Protection of future development projects from the threat of flooding in a 100 year or more frequent flood event.
147-OSCP Proponents of new development projects shall be required to undertake an evaluation of flood hazards and shall present the evaluation results to the County prior to approval of development projects.
148-OSCP The installation of storm drain and other flood protection/prevention improvements shall be required as a condition of approval for of all new development projects.
149-OSCP When considering approval of new development projects, areas subject to flooding should be avoided unless appropriate mitigation measures have been incorporated into the project or required as a condition of project approval.
150-OSCP The County shall work closely with the U.S. Army Corps of Engineers, local reclamation districts and levee commissions to assure that maximum protection from potential levee breaks or overtopping during periods of high water is provided to the Linda and Olivehurst region.
151-OSCP The flood protection measures contained in the South Yuba Drainage Master Plan shall be implemented as opportunities and resources allow.

36-OSCO Maintenance and improvement of existing regulations protecting properties from hazards and constraints to development.
152-OSCP The County shall continue to maintain floodplain zoning and shall take all necessary steps to maintain its eligibility for the Federal Flood Insurance Program as administered by the Federal Emergency Management Agency.
153-OSCP All proposals for dams and levees shall be carefully reviewed by the County to assure that potential hazards are not created by their construction or the manner of their construction. Proposals for dam and levee construction shall be coordinated with the State Reclamation Board and the Department of Water Resources, Division of Dam Safety.
154-OSCP Emergency and public assembly facilities shall not be constructed in areas subject to 100 year floods unless fully protected.
155-OSCP Natural waterways shall be protected from unnecessary alteration whenever flood protection structures or other forms of construction are proposed.
156-OSCP Integration of recreational uses with flood protection facilities shall be considered whenever such uses do not interfere with the facilities' primary purpose.

3.3.4.1.3 Yuba County Building Code

See Yuba County Building Code for additional information.

Yuba County Ordinance Code Chapter 10.15 – Firebreaks

10.15.010 Requirements. Every person owning, controlling, renting or operating any cabin, tent, residence, store, hotel or other structure in any unincorporated territory in the County of Yuba, State of California, shall maintain a firebreak or clearing, free from all inflammable materials for thirty feet from any portion of such cabin, tent, residence, store, hotel or other structure, and shall keep the roofs free from an accumulation of needles, leaves, or other debris, during the period from April 15th to December 1st, of each year. Provided that, where a natural firebreak is declared to exist by a Federal or State Forestry Officer, no further clearing or inflammable material shall be required. In the event the property line is closer to the buildings than the number of feet provided for in this chapter, then the inflammable material shall only be cleared to the property line. (#157)

10.15.020 Penalty. Any person violating any of the provisions of this chapter shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not exceeding $250.00, or by imprisonment in the county jail for a period not exceeding three months, or by both such fine and imprisonment. (#157)

Yuba County Ordinance Code Chapter 10.30 – Flood Plain Management

10.30.010 Statutory Authorization. The Legislature of the State of California has in Government Code "65302, 65560 and 65800 conferred upon local government units authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. (#998 as amended by #1248)

3.3.4.1.4 Yuba County Ordinance Code Chapter 11.50 – Fire Safe Regulations

11.52.010 Title. This chapter shall be known and may be cited as the "Fire Safe Regulations Ordinance of Yuba County." (#1095)

11.52.020 Purpose. The purpose of this chapter is to establish minimum wild fire protection standards pursuant to Section 4290 of the Public Resources Code which shall apply to the issuance of building or construction permit, tentative map approval, or other development entitlement approved by the County of Yuba in designated State Responsibility Areas (SRA). (#1095)

11.52.030 Definitions. The following terms used in this chapter shall be defined as follows:

(a) Accessory building: "Accessory building" is any building used as an accessory to residential, commercial, recreational, industrial, or educational purposes as defined in the California Building Code with 1989 amendments, Chapter 11, Group M, Division 1, Occupancy that requires a building permit.

(b) Agriculture: "Agriculture" is land used for agricultural purposes as defined in Title 11, (Zoning) of the Yuba County Ordinance Code.

(c) Building: "Building" is any structure used or intended for supporting or sheltering any use or occupancy that is defined in the California Building Code with 1989 amendments, except Chapter 11, Group M, Division 1, Occupancy. For the purposes of this Chapter, building includes mobile homes and manufactured homes, churches, and day care facilities.

(d) CDF: "CDF" is California Department of Forestry and Fire Protection.

(e) Dead-end road: "Dead-end road" is a Road that has only one point of vehicular ingress/egress, including cul-de-sacs and looped roads.

(f) Defensible space: "Defensible space" is the area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures.

(g) Development: "Development" is as defined Government Code in Section 66418.1.

(h) Driveway: "Driveway" is a vehicular access that serves no more than two parcels, with no more than 3 dwelling units on a single parcel, and any number of accessory buildings.

(i) Dwelling Unit: "Dwelling Unit" is any building or portion thereof which contains living facilities, including provisions for sleeping, eating, cooking and/or sanitation for not more than one family.

(j) Exception: "Exception is an alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions such as recorded historical sites, that provides mitigation of the problem.

(k) Fire valve: "Fire valve" is the same as hydrant.

(l) Fuel modification area: "Fuel modification area" is an area where the volume of flammable vegetation has been reduced, providing reduced fire intensity and duration.

(m) Greenbelts: "Greenbelt" is a facility or land-use, designed for a use other than fire protection, which will slow or resist the spread of a wildfire. A greenbelt includes parking lots, irrigated or landscaped areas, golf courses, parks, playgrounds, maintained vineyards, orchards or annual crops that do not cure in the field.

(n) Hammerhead/T: "Hammerhead/T" is a roadway that provides a "T" shaped, three-point turnaround space for emergency equipment, being no narrower than the road that serves it.

(o) Hydrant: "Hydrant" is a valved connection on a water supply/storage system, having at least one 2 ½ inch outlet, with male American National Fire Hose Screw Threads (NH) used to supply fire apparatus and hoses with water.

(p) Local Jurisdiction: "Local Jurisdiction" is any county, city/county agency or department, or any locally authorized district that issues or approves building permits, use permits, tentative maps or tentative parcel maps, or has authority to regulate development and construction activity.

(q) Occupancy: "Occupancy" is the purpose for which a building, or part thereof, is used or intended to be used.

(r) One-way road: "One-way road" is a minimum of one traffic lane width designed for traffic flow in one direction only.

(s) Roads, streets, private lanes: "Roads, streets, private lanes" are vehicular access to more than one parcel, access to any industrial or commercial occupancy, or vehicular access to a single parcel with more than two buildings or four or more dwelling units.

(t) Roadway: "Roadway" is any surface designed, improved, or ordinarily used for vehicles travel.

(u) Roadway structures: "Roadway structures" are bridges, culverts, and other appurtenant structures which supplement the roadway bed or shoulders.

(v) Same Practical Effect: "Same Practical Effect" as used in this chapter, means an exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire righter safety, including:

(1) access for emergency wildland fire equipment,
(2) safe civilian evacuation,
(3) signing that avoids delays in emergency equipment response,
(4) available and accessible water to effectively attack wildfire or defend a structure from wildfire, and
(5) fuel modification sufficient for civilian and fire fighter safety.

(w) Shoulder: "Shoulder" is the roadbed or surface adjacent to the traffic lane.

(x) State Responsibility Area (SRA): "State Responsibility Area (SRA)" is as defined in Public Resources Code Sections 4126-4127 and the California Code of Regulations, Title 14, Division 1.5, Chapter 7, Article 1, Sections 1220-1220.5.

(y) Structure: "Structure" is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially build up or composed of parts joined together in some definite manner.

(z) Subdivision: "Subdivision" is as defined in Government Code Section 66424.

(aa) Traffic lane: "Traffic lane" is the portion of a roadway that provides a single line of vehicle travel.

(bb) Turnaround: "Turnaround" is a roadway, unobstructed by parking, which allows for a safe opposite change of direction for emergency equipment. Design of such area may be a Hammerhead/T or terminus bulb.

(cc) Turnouts: "Turnouts" are a widening in a roadway to allow vehicles to pass.

(dd) Vertical clearance: "Vertical clearance" is the minimum specified height of a bridge or overhead projection above the roadway.

(ee) Wildfire: "Wildfire" is as defined in Public Resources Code Sections 4103 and 4104.

NOTE: Authority cited: Public Resources Code Section 4209 Reference: Public Resources Code Sections 4290 and 4291. (#1095 as amended by #1122)

11.52.040 Exemptions. Except as otherwise noted in Section 9.70.220, the provisions of this chapter shall not apply to existing permitted structures, existing County maintained roads, existing private roads and driveways, Lot Line Adjustments, roads constructed exclusively for agricultural or extractive industrial uses where the property is owned by a single person or entity, and roads constructed exclusively for the management or harvesting of timber products. (#1095 as amended by #1122)

11.52.050 Scope. The provisions of this chapter shall apply to the approval of new parcels, building permits for new construction not relating to an existing structure road construction and road extension projects contained in Yuba County and located in a California Department of Forestry (CDF) State Responsibility Area (SRA). All specified or referenced distances shall be measured along the ground unless otherwise stated. Basic emergency access and perimeter wildlife protection measures specified in the sections to follow provide standards for emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation and modification. (#1095 as amended by #1122)

11.52.060 Administration of the Ordinance. This ordinance shall be administered by the Yuba County Planning and Building Services Department Director. The responsibilities of the Director under this ordinance include the following functions:

(a) Application Processing - Accept and review all applications for projects listed in Section 11.52.050 of this Chapter, certify that applications submitted have been properly completed, establish permanent files, inspect project site for compliance with this chapter, prepare public notices, meet with applicants, collect fees, prepare reports, process appeals, present staff reports to the Board of Supervisors.

(b) Permit Issuance - Issue permits under this Chapter and certify that all such permits are in full conformance with requirements of this Chapter.

(c) Coordination - Refer and coordinate matters related to the administration of this Chapter with other agencies and County Departments.

(d) Enforcement - Enforce and secure compliance with the provisions of this Chapter. (#1095)

11.52.070 Emergency Access. All roads and private driveways, unless exempt under Section 11.52.040 of the Yuba County Ordinance code, shall be constructed to provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently.

(a) All newly constructed approved roads, driveways and buildings shall be addressed by name(s) and number(s) displayed with signs that are clearly visible and legible from the roadway in accordance with Chapter 9.70 of the Yuba County Ordinance Code and with the State of California Traffic Manual. All signs shall be installed prior to map recordation where a tentative map application has been approved and prior to the issuance of the Final Certification of Occupancy where an application for building permits has been proposed.

(b) All new roads and driveways shall be constructed in accordance with Section 11.15.660 of the Yuba County Ordinance Code. All roads and driveways shall be designed to provide the minimum vertical clearance and to carry the maximum legal gross vehicle limit allowed by the State Vehicle Code.

(c) When a gate is proposed on a private road or driveway to restrict access to property, said gate shall be constructed as follows:

> (1) Gate entrances shall be at least two feet wider than the width of the traffic lane(s) serving the gate.
>
> (2) All gates providing access from a road to a driveway shall be located at least 30 feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on the road.

(d) All new roadway structures shall meet the following standards:

> (1) Bridges shall be constructed to carry at least the maximum load and provide the minimum vertical clearance as required by Vehicle Code Sections 35550, 35750 and 35250.
>
> (2) Appropriate signing, including, but not limited to, weight, or vertical clearance limitations, one-way road or single lane conditions, shall be posted to reflect the capacity of each bridge.
>
> (3) A bridge with only one traffic lane may be authorized by the County; however, such bridge shall provide for unobstructed visibility from one end of the bridge to the other and turnouts at both ends of such bridge. (#1095 as amended by #1122)

11.52.080 Emergency Water Supply Standards. An emergency water system for wildfire protection shall be constructed in State Responsibility Areas and certified by a Registered Civil Engineer or architect to meet either the Public Utilities Commission Revised General Order #103: Section VIII and other applicable fire flow sections, National Fire Protection Association Standard 1231 or Insurances Services Office Rural Class 8 Standard prior to the recordation of a parcel or final map, where a community water system is approved, or prior to the completion of building construction, where an individual system is approved. When a project is contained in both a SRA

and a fire protection district, then the emergency water system shall be constructed and certified to meet the fire protection district or CDF standards, whichever is more restrictive. (#1095)

11.52.090 Fire Hydrant/Fire Valve. Fire hydrants shall be installed and certified by a Registered Civil Engineer or architect to meet the following:

(a) Eighteen inches above grade.

(b) Minimum eight feet from flammable vegetation.

(c) Minimum four feet and a maximum 12 feet from roadway.

(d) Minimum 50 feet and a maximum 1/2 mile from the building it serves.

(e) 2 1/2 inch or 4 1/2 inch male N.H. male fitting.

(f) identified with a 3-inch reflectorized blue dot on the driveway, address sign, or placed within 3 feet of a hydrant with a sign 3 to 5 feet above the ground.

(g) Located at a turnout or turnaround, along the driveway to the building it serves or along the road that intersects with that driveway. (#1095)

11.52.100 Fuel Modification Standards. The following defensible space standards shall be completed in SRA's prior to parcel or Final Map recordation, or the issuance of a Certificate of Building Occupancy.

(a) Setback for Defensible Space. Firebreaks shall be established and maintained in accordance with Chapters 10.15 (Firebreaks) an 11.12 (Mitigation Monitoring) of the Yuba County Ordinance Code the and following:

> (1) All new buildings shall be constructed with a minimum thirty (30) foot setback from all property lines and/or the center of a road to serve as a fire break.
>
> (2) The side and rear yard building setback requirement may be reduced to the setback permitted by the zoning district pursuant to Title 12 of the Yuba County Ordinance Code provided that the parcel is served by a community water system utilizing fire hydrants approved by CDF.

(b) Disposal of Flammable Vegetation and Fuels. On site flammable vegetation and fuels shall be disposed by chipping, burying, burning or by removal and transfer to a County approved land fill site.

(c) Greenbelts. When proposed as part of a development plan, greenbelts shall be located strategically as a separation between wildland fuels and structures. (#1095)

11.52.110 Waiver of Fire Safety Regulations. Upon request by the applicant, a waiver of one or more of the requirements of this chapter may be allowed by the Staff Development Committee, where such waiver provides the same overall practical effect provided by this Chapter. A letter requesting such waiver shall be submitted to the Staff Development Committee along with any fee established for waivers. A copy of the waiver request shall be submitted to the Planning and Building Services Department Director and to CDF for review and comment. The review and comment period shall be no less than two weeks. Approval or conditional approval of the waiver request shall only be granted when the Staff Development Committee makes the finding that

such action is in keeping with the purposes and intent of this chapter. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CDF Ranger Unit headquarters that administers SRA fire protection in Yuba County. (#1095 as amended by #1152)

Yuba County Ordinance Code Chapter 10.35 – Fire Mitigation

10.35.010 Findings. The Board of Supervisors of Yuba County does hereby find and declare that new buildings and improvements projects contribute to the increase for potential fire danger in Yuba County and that in the best interest of the citizens of the County and to promote and protect the health and welfare of the residents of Yuba County it is necessary that persons who carry out such projects within the County pay a reasonable fee to mitigate such fire danger. (#850 as amended by #875, 1297)

10.35.020 Definitions.

(a) Agricultural Building – “Agricultural Building” is defined as any miscellaneous building or structure that is associated with a farm or ranch enterprise that is not a residential structure, apartment, duplex, triplex, or fourplex as defined in this chapter, nor is it a garage or a carport associated with these buildings or structures. The farm or ranch enterprise may be for income or hobby purposes where permitted by zoning. For the purpose of this chapter an agricultural building may include a place of employment where agricultural products are processed, treated, or packaged as part of the agricultural process, but not for commercial purposes.

(b) Apartments – “Apartments” is defined as one building providing five or more separate dwelling units but no including condominiums as defined herein.

(c) Areas Served by Fire Hydrant – "Areas Served by Fire Hydrant" or "Hydrant Areas" are defined as having a fire hydrant no further than 500 feet from the subject structure, except that for Commercial, Industrial and Institutional and improvements appurtenant thereto, such terms are defined as having a fire hydrant no further than 300 feet from the subject structure. The areas not so served are "non-hydrant areas."

(d) Commercial Buildings – "Commercial Buildings" are defined as buildings occupied or designed for occupancy by retail businesses selling either goods or services; recreation or amusement businesses; professional offices; or warehouses containing merchandise offered for sale to either retail or wholesale customers where permitted by zoning or other entitlement.

(e) Condominium – "Condominium" is defined as a system of separate ownership of individual units in a multiple-unit building.

(f) Duplex – "Duplex" is defined as one building providing two separate dwelling units.

(g) Fire Hydrant ' A "Fire Hydrant" is defined as standard hydrant approved by the responsible fire protection district, association, entity, or agency providing a minimum flow of 500 gallons per minute for 20 minutes unless otherwise agreed to by the responsible fire protection district, association, entity or agency.

(h) Fire Protection Service – "Fire Protection Service," "Fire Protection Purposes," and "Fire Protection" are all defined to include those services, powers and duties outlined in Health and Safety Code §13851 et seq.

(i) Fourplex – "Fourplex" is defined as one building providing four separate dwelling units.

(j) Industrial Buildings - "Industrial Buildings" are defined as those buildings which are designed for the conduct of manufacturing, milling processing or fabrication business.

(k) Institutional Building – "Institutional Building" is defined as and shall include buildings to be used as churches, schools, day care centers, hospitals, meeting rooms of lodges and other non-profit fraternal organizations and similar uses as determined by the Building Official.

(l) Residential Structure – "Residential Structure" is defined as a structure constructed to be used primarily as a dwelling and shall include any enclosed structure or improvement attached thereto.

(m) Responsible Fire Protection District, Association, Entity or Agency – "Responsible Fire Protection District, Association, Entity or Agency" is defined as that district, state agency or other entity which has accepted primary responsibility to provide fire protection to the subject structure, and includes volunteer associations which have been approved by the County Fire Warden pursuant to §10.35.100.

(n) Sprinkler System – "Sprinkler System" is defined as a system which provides automatic water sprinkling inside of a building in case of fire. Such system shall be as defined in the Uniform Building Code and shall be approved by the Building Inspection Department.

(o) Triplex – "Triplex" is defined as one building providing three separate dwelling units.

(p) Volunteer Associations – "Volunteer Associations" are defined as associations of volunteers formed to provide fire protection services to a specific area but not formed under the provisions of Health and Safety Code §13801 et seq. (#850 as amended by #873 and #1297)

(q) Attached structures – residential – For purposes of this chapter, any structure erected within ten (10) feet of any "apartment" (as defined in subdivision (b) of this section), "condominium" (as defined in subdivision (e) of this section), "duplex" (as defined in subdivision (f) of this section), "fourplex" (as defined in subdivision (i) of this section), "residential structure" (as defined in subdivision (l) of this section), or "triplex" (as defined in subdivision (o) of this section) are deemed attached to such structure, and the square footage of such "attached structure" shall be added to the total square footage for purposes of calculating the fire mitigation fee for the property in question. By way of example, if a 1,200 square foot dwelling is within ten (10) feet of a 700 square foot structure, the 700 square foot structure shall be deemed attached to the dwelling and a fire mitigation fee shall be assessed for a 1,900 square foot residential structure.

(r) Attached structures – commercial and industrial. For purposes of this Chapter, any structure erected within fifty (50) feet of a "commercial building" (as defined in subdivision (d) of this section), or "industrial building" (as defined in subdivision (j) of this section) shall be deemed to be attached to the commercial building or industrial building, as the case may be, and the square footage of such attached structure shall be added to the square footage of the commercial building or industrial building and included within the calculation of fire mitigation fees paid with respect to the property containing the commercial building or industrial building, as the case may be. By way of example, if a 3,000 square foot commercial building is erected within fifty (50) feet of an 800 square foot structure, the 800 square foot structure shall be deemed attached to the commercial building and a fire mitigation fee, based upon a 3,800 square foot commercial building shall be assessed according to the provisions of this Chapter.

Any "commercial building" or "industrial building" (including structures deemed attached to such buildings by virtue of this subsection) that are erected within ten (10) feet of a residential structure

shall not be classified as a residential structure, but rather, for purposes of fire mitigation fees imposed pursuant to this Chapter, shall be classified as a "commercial building" or "industrial building" as the case may be. (#850 as amended by #873, 1243 and #1297)

10.35.030 Applicable Areas. This chapter shall apply to those portions of the unincorporated area of the County specifically included by resolution of the Board of Supervisors. Such inclusion shall follow one of the following procedures.

(a) Any district as defined in Government Code §56039 which would be a recipient of the fees provided by this chapter, may request inclusion by official action conveyed in writing to the Board of Supervisors.

(b) A petition for inclusion may be submitted to the Board of Supervisors, signed by registered voters in the proposed area to be included equal in number, at least, to 25% of the votes cast within the proposed area for all the candidates for governor at the last preceding general election at which a governor was elected. Upon receipt of such petition the Clerk of the Board must then set a public hearing upon the proposed inclusion giving notice of all pertinent information. If written protests are received prior to the conclusion of the public hearing from owners of property with a value of more than one-half of the total assessed value of the property within the proposed area the proceedings shall be terminated and may not be considered again for one year. Upon conclusion of the public hearing the Board may conclude that the area should not be included within the provisions of the chapter or may, in the alternative, adopt a resolution fixing the boundaries of the proposed area and call and give notice of an election to be held within those boundaries to determine if the area shall be included within the provision of this chapter. The election shall be held at the next County-wide election. Written ballot arguments for or against the proposed inclusion may be filed as provided by law. If a majority of the votes cast at the election favors the inclusion of the area the Board shall by resolution so include the specified area.

(c) A petition for inclusion may be submitted to the Board of Supervisors, signed by registered voters in the area proposed to be included equal in number, at least, to 51% of all the votes cast within the proposed area for all candidates for Governor at the last preceding general election at which a Governor was elected. Upon receipt of such petition the Clerk of the Board must then set a public hearing upon the proposed inclusion giving notice of all pertinent information. If written protests are received prior to the conclusion of the public hearing, from owners of property with a value of more than one-half of the total assessed value of the property within the proposed, the proceedings shall be terminated and may not be considered again for one year. At the conclusion of the hearing the Board may by resolution find and determine that the subject area may be included within the terms of this Chapter without election or may call for an election to be conducted in accordance with (b) above.

(d) A petition for inclusion may be submitted to the Board of Supervisors signed by owners of real property in the area proposed to be included equal to at least 51 % of the assessed valuation of real property within the proposed area. Upon receipt of such petition, the Clerk of the Board must then set a public hearing upon the proposed inclusion giving notice of all pertinent information. If written protest are received prior to the public hearing from owners of property with a value of more than one-half of the total assessed value of the property within the proposed area, the proceedings shall be terminated and may not be considered again for one year. At the conclusion of the hearing, the Board may by resolution find and determine that the subject area may be included within the terms of this chapter without election or may call for an election to be conducted in accordance with (b) above.

(e) An inclusion approved pursuant to this section shall be effective 90 days following a adoption of a Resolution of Inclusion by the Board of Supervisors or 90 days following the election at which such inclusion was approved. (#850 as amended by #875 and 1297)

10.35.040 Fees Established Pursuant to Fire Mitigation Study: Terms of Fees Otherwise Established. Fees for each fire protection district or any district authorized to provide fire protection services may be established by resolution based upon a fee study conducted pursuant to the provisions of Government Code §66000 et seq. (#1297)

10.35.050 Fees, Additions. No fee shall be required for additions to existing buildings, structures, or other improvements that were in existence prior to the effective date of this chapter or for which fees pursuant to the chapter have been paid; provided however, except for the fees imposed pursuant to §10.35.040 of this chapter where the size of the total addition equal or exceeds 50% (fifty percent) of the existing buildings, structure, or other improvement, then fees as provided herein shall be imposed upon the total additions. (#850 as amended by #873, #1297)

10.35.060 Fee: Change in Use. Whenever a change in the use of a parcel of land occurs, which would require a fee greater than the fee which was required for the prior use, the fee shall be computed at the rate required herein for the new use, less the amount of any fees which have been previously paid for said parcel of land. In the event such fee previously paid exceeds the fee required for the purposed use, no refund of the difference shall be made. (#850 as amended by #1297)

10.35.070 Fees: Mixed Uses. For new buildings or additions containing uses in more than one category, the category having the higher corresponding fee shall be used except for home occupations as defined in Title XII of this code, which shall be considered as a residential category. (#873 as amended by $1297)

10.35.080 Payment of Fees. Unless otherwise provided herein the fees required by this chapter will be due and payable to the Building Official at such time as a building permit is issued. (#857, as amended by #873, #1297)

10.35.090 Distribution of Fees.

(a) Periodically but not less than quarterly, the Auditor-Controller shall direct payment of fees as follows:

(1) If the fee was collected in a special district providing fire protection services the fee shall be
distributed to that district.

(2) If the fee was collected in an area covered by a volunteer association approved by the County Fire Warden pursuant to §10.35.100, the fees shall be paid to the County Fire Warden who shall distribute the fees one-half (1/2) to the association in which collected and one-half (1/2) shall be used for the joint benefit of the volunteer association.

(3) If the fee was collected in an area for which no district, entity or agency has agreed to provide primary fire protection services, the fee shall be paid to the County Fire Warden. Such fees shall be used by the County Fire Warden to provide limited fire protection services to such areas or may be used to assist local volunteer associations formed to provide such services or to encourage the formation of entities to provide fire protection services.

(b) In order to qualify for the receipt of such funds, a district, entity or agency other than the County Fire Warden must have entered into an agreement with the County. Such agreement shall include the following:

(1) That the monies will be used to provide fire protection services to the district, entity, or agency.

(2) That the County may, upon reasonable notice and during working hours, have the right to audit the books of the district, entity, or agency, ascertain compliance with the chapter and with the agreement.

(3) Any other matters which the parties shall deem appropriate. (#1297)

10.35.100 Record of Fees Paid. The Building Official shall keep accurate records concerning the collection of fees under this chapter. Such records shall set forth the amount of fees paid as to each parcel of land, building, or improvement to which said fees apply, and shall also set forth the specific district or land covered by a volunteer association in which the particular land, building, or improvement is situated. To assist the Building Official in keeping such records, the County Fire Warden shall file or cause to be filed maps of volunteer associations providing fire protection services which, in the discretion of the Fire Warden have demonstrated satisfactory levels of ability to provide services to the subject area.

10.35.110 Administrative Cost. To reimburse the County for cost of administration the County shall deduct 5% (Five percent) for all monies collected during the first year this Chapter is in effect. After one year such percent may be adjusted from time to time by resolution of the Board. (#850, as amended by #1297)

10.35.120 Rounding of Fees. All fees and credits as defined herein shall be rounded to the nearest dollar (1.00). (#850, as amended by #1297)

10.35.130 Deferment of Fees. Where the Board of Supervisors finds that such action is in keeping with the purpose and intent of the Chapter it may, by executed agreement, all the deferment of fees required by this Chapter. Such agreement shall include the following provisions:

(a) The deferment shall be for nor more than three years.

(b) During the three year period, periodic payment shall be made.

(c) The deferment and periodic payments shall be limited to multi-unit projects which are planned for staged development.

(d) Failure to complete payment as agreed shall allow the County to place a lien on the property for the amount owing. (#850, as amended by #1297)

10.35.140 "In Lieu" Payments. If first approved in writing by the recipient district, entity, agency, or the County Fire Warden, "in-lieu" payments to the district, entity, agency, or County Fire Warden may be credited against the fee imposed pursuant to this Chapter. "In lieu" payments may include buildings, equipment, motor vehicles, etc. For "In lieu" payments the County administrative cost provided in §10.35.110 may be deducted from any other amounts to be paid to the district, entity, or agency. (#850, as amended by #1297)

10.35.150 Fees: City. Whenever a subdivision is located partly within a city which has established a schedule of fees for fire protection purposes, and said city notifies the County in writing that said city will be responsible for the fire protection of said subdivision, and any other responsible fire protection district, entity, or agency agrees in writing, the City shall be authorized to collect such fees for the whole subdivision pursuant to its schedule. (#850 as amended by $1297)

10.35.160 Fee: Special Districts. No fee as established herein shall be required of any special district operating in Yuba County, including school districts, or, upon the approval of the Board of Supervisors, of any public entity. In addition, no fee shall be required of any district, entity, or agency providing fire protection services which would be the ultimate recipient of said fee. In addition, no fee shall be required of any volunteer association for which a map has been filed pursuant to §10.35.100. (#850 as amended by #1297)

10.35.170 Disaster Replacement. The Building Official may waive any fire fees due and payable on the application for a building permit for a building to replace one destroyed by fire or other disaster when such application is filed within two years of said fire or other disaster; provided however, this section shall not operate to waive any fees due and payable by reason of change in land use or zoning. (#850 as amended by #1243, 1297)

10.35.180 Fees: Use. Except as otherwise provided in this Chapter, fees, collected and distributed under this chapter may only be used within the area of the responsible fire protection district, entity or agency or as otherwise agreed by the district, entity or agency, provided that such fees are used within the County of Yuba and only for fire protection purposes including but not limited to, maintenance and improvement of existing fire protection facilities and the construction of new fire protection facilities. Nothing in this section shall be construed to prevent the entering into or fulfillment of mutual aid agreements. (#850, as amended by #1297)

10.35.190 Exclusions. Any area included within the terms of this Chapter pursuant to §10.35.030 may be excluded by following any of the applicable provisions for inclusion outlined in §10.35.030. (#850 as amended by #875, #1297)

10.35.200 Right to Fire Protection. By adoption of this Chapter the County of Yuba does no take upon itself the obligation of providing fire protection services, and neither this Chapter nor any other Ordinance of the County of Yuba shall be construed as creating a right in any individual, corporation, partnership or other entity for fire protection services. (#850, as amended by #1297)

10.35.210 Waiver of Fees. Any of the fees imposed by this chapter may be waived by the Board of Supervisors upon showing of good cause. Good cause shall be shown by reference to the following criteria:

(a) A finding that such action is in keeping with the purposes and intent of this chapter.

(b) The imposition of such fees due to special circumstances pertaining to the property or the individual will result in a hardship greater than others on whom such fees are imposed.

(c) The Fire District Board of Directors in areas served by formal fire districts or the County Fire Warden in areas not served by formal districts must have submitted a written recommendation that the fee be waived. (#873, as amended by #1297)

3.3.4.1.5 DOHFPD Constitution

REVISED JUNE 2003

ARTICLE 1 – NAME

The name of this organization shall be "Dobbins-Oregon House Fire Protection District (DOHFPD)

ARTICLE 2 – OBJECTIVES

A. To provide emergency services of the highest caliber to the inhabitants and visitors within the Dobbins-Oregon House Fire Protection District.
B. To create and maintain a brotherly and fraternal feeling, and perpetuate a spirit of a friendship among the members of the Dobbins-Oregon House Fire Protection District.

ARTICLE 3 – OFFICERS

The officers of this department shall consist of the Chief, 2 Assistant Chief, 3 Captains, and 3 Lieutenants.

ARTICLE 4 – MEMBERSHIP

A. No member of the Board of Directors of Dobbins-Oregon House Fire Protection District shall be allowed to be an active member of the Dobbins-Oregon House Fire Protection District
B. The number of active members shall be limited to twenty-five (25), plus the members of the Explorer post program.

BY-LAWS OF THE DOBBINS-OREGON HOUSE FIRE PROTECTION DISTRICT

ARTICLE 1 – CANDIDATES FOR ACTIVE MEMBERSHIP

SECTION 1. CANDIDATES FOR ACTIVE MEMBERSHIP:

A. Candidates for active membership in the DOHFPD may be proposed by any member thereof at any regular meeting.
B. The candidate's application shall be in writing on the standard application form "Dobbins-Oregon House Fire Protection District". This application shall be filled out and signed by the applicant.

SECTION 2. QUALIFICATIONS OF THE APPLICANT

A. All candidates for membership must be over the age of eighteen (18) of age, of moral character and industrious habits.
B. Candidates for membership must also be of sound health and may be asked to perform some basic physical tests. The result s of the tests shall be placed on the application.
C. All candidates must carry and maintain proof of State of California required auto insurance and may be asked to provide proof of said insurance at time of applying and at any time in the future that an officer requested said insurance.
D. All candidates must read and sign the DOHFPD Drug and Alcohol Abuse Policy.

SECTION 3. ELECTION OF MEMBERS

A. During any regular meeting where an election may be held, by secret ballot for active members is being held, the meeting shall be in closed session for only active members, for the duration of the election.
B. Upon any opening for active membership each applicant on the waiting list shall be balloted upon by secret ballot at any regular meeting after presentation of the application.

C. If receiving five (5) or more objecting votes, they shall be declared rejected. If the application is rejected, the applicant shall be notified.
D. The rules in relation to balloting can be suspended by the unanimous vote of active membership present at any regular meeting.
E. New active members will be put on one year (1) probation with no voting privileges. At the expiration of the one year probation, in closed meeting, the membership shall review the member's probation period, then decide whether or not the member will be removed from active membership.

ARTICLE 2 – DUTIES OF MEMBERS

SECTION 1. IT SHALL BE THE DUTY OF EACH MEMBER TO:

A. Upon becoming an active member on probation, you must complete the required training mandated by the DOHFPD volunteer firefighter, CPR & driving ability.
B. Upon being advised of an emergency incident, respond immediately obeying all State of California traffic laws either to the Fire Station or to the scene of the incident as per their instruction.
C. Do all in their power to get the apparatus functioning and to use their best efforts in working the same.
D. Remain at their post of duty until duly relieved or an officer has released you.
E. Strictly obey the officer in command and the laws, rules, and regulations of the DOHFPD.
F. Be present at 80% of all training and maintenance and to neglect no duty that is imposed upon them that is reasonable and in their power to perform.
G. Return with apparatus to the station and help house and maintain the apparatus, unless otherwise directed by the officer in charge.
H. It shall be their duty before leaving the community for a longer period than forty-eight (48) hours, to notify the Chief or Assistant Chief.

SECTION 2. CONDUCT:

A. No member shall appear at a meeting, drill, emergency incident or other public function, in a state of intoxication, nor shall they use insulting, indecent or improper language or be guilty of conduct unbecoming of a fire person or otherwise bring disgrace upon DOHFPD. A violation of this section shall be recognized as adequate cause for suspension or expulsion form the DOHFPD
B. No member shall be in poor health, hygiene, and physical appearance at a meeting, drill, emergency incident or other public function.
C. No member shall repeat any thing that is said at any drill, meeting, and emergency incident to any person not on fire protection district.
D. No member shall break any federal, state, county or local laws.

ARTICLE 3 - FIRE DISTRICT PROPERTY

A. The DOHFPD may issue Identification Cards, Badges, Safety Clothing, Pagers, Radios, and other fire equipment to the members of the fire protection district… These items being the property of the fire protection district, must be returned when a member resigns or is expelled.

ARTICLE 4 - RESIGNATIONS

A. Any member who is absent thirty (30) days without permission from the Chief or Assistant Chief may be considered as having resigned.
B. All resignation of members or offices shall be tendered to the DOHFPD in person and writing.
C. Upon resignation, all Fire protection district property must be turned in at that time and presented to the Chief or Assistant Chief.

D. A member of good standing who resigns and does not rejoin within thirty (30) days must re-apply following the rules set forth in ARTICLE 1, SECTION 1, 2, 3.

ARTICLE 5 - EXCUSED ABSENCES

A. Sickness in a member's family or in self or absence from the community shall be sufficient excuse for a non-attendance at business meetings, drills or incidents.
B. All excuses shall be presented to the Chief or Assistant Chief for approval prior to the meeting.
C. Leave of absence will usually not exceed six (6) months and all leave of absences must be approved by the Chief.

ARTICLE 6 - EXPULSION AND SUSPENSION

SECTION 1. ATTENDANCE

Inconsistent or erratic attendance at drills or incidents or being absent from three (3) successive drills without permission of the Chief or Assistant Chief shall be brought before the members for review.

SECTION 2. SUSPENSION AND EXPULSION PROCEDURES

A. No member of the DOHFPD shall be removed or expelled unless by a majority vote of those members present, and in no case shall a member be removed or expelled without having had ten (10) days written notice of the charges brought against them.
B. A member may be suspended by a majority vote of the officers within fifteen (15) days of the incident, a special meeting of the DOHFPD will be called to determine if a suspended member shall be expelled according to ARTICLE 6, SECTION 2.A

ARTICLE 7 – APPOINTMENT OF OFFICERS

SECTION 1. CHIEF

A. Chief Officer of the DOHFPD shall be appointed by the DOHFPD's Board of Directors and shall serve at their pleasure.

SECTION 2. ASSISTANT CHIEF AND OFFICERS

A. The Chief Officer shall appoint Assistant Chiefs, Captains and any other officers from within the membership that he/she deems necessary.

ARTICLE 8 – VACANCIES

A. In the event of vacancy in the offices of Chief, the Assistant Chief shall fill the office of the Chief until the appointment of a new Chief.

ARTICLE 9 – RESPONSIBILITIES OF OFFICERS

SECTION 1. CHIEF

A. The Chief shall preside at all meetings and shall preserve order and decorum and enforce a strict obedience to the DOHFPD rules.
B. The Chief shall call a special meeting when necessary as provided in article 6, section 2, and paragraph B of these By-laws.
C. The Chief shall attend all of the DOHFPD board meetings. Chief shall keep the district board informed as to operation and activities of the district.
D. The chief shall coordinate activities between the volunteer firefighter and the officer in charge at an emergency incident.
E. The Chief shall perform those duties which the DOHFPD Board of Directors may from time to time assign.
F. The Chief shall assign duties to other members of the DOHFPD as needed.

SECTION 2. ASSISTANT CHIEF

A. It shall be the duty of the Assistant Chief to act in the place of the Chief during his/her absence from any of the meeting, and shall have the same power of and authorities, and like the duties shall be imposed upon him/her as the chief during such times as he/she shall act as Chief.
B. Keep a record in which he/she shall maintain and update all, laws, rules, and standing resolution adopted by the DOHFPD.
C. He/she shall report any changes that have occurred in the DOHFPD since his/her previous report, setting forth the name of parties, their occupation, residence, and whether elected, transferred, suspended, expelled, resigned, or deceased. This information must be also given to the treasurer of the DOHFPD so it may be reported to the insurance company and workmen compensation fund.
D. He/she shall perform generally such other duties as are customary and as may be imposed upon him/her within reason.

SECTION 3. CAPTAINS

A. It shall be the duty of the Captain to act in the place of the Chief or Assistant Chief during their absence from any of the meetings or incidents, they shall have the same power and authorities and like duties shall be imposed upon them as upon the Chief or Assistant Chief during such times as they shall act as Chief or Assistant Chief.
B. Shall notify all members as soon as possible about meetings or drills.
C. The Captain shall keep accurate records of the attendance for all drills, emergency incidents, and training.

SECTION 4. LIEUTENANTS

A. It shall be the duty of the Lieutenants to act in the place of a Captain during his/her absence.
B. Shall be assigned a category that they are responsible for, i.e., medical, equipment, maintenance, gear, and all other item that may be needed for the fire district.

ARTICLE 10 – MEETINGS

SECTION 1. MEETINGS

A. The regular business meeting or drill of the DOHFPD shall be held every other Wednesday, and the opposite Wednesday will be for maintenance.
B. All business will be conducted at these Wednesday meetings or drill unless that a special meeting is called.
C. Officer meetings will be held once (1) a month at said day and time stated by the officers. This officer meeting will be to conduct business that is for rules, laws, regulation, and etc.

ARTICLE 11 – AMENDMENTS

A. No alteration or amendments shall be made to this Constitution or By-laws unless proposed in writing at a regular business meeting of the DOHFPD
B. At the next regular officer meeting any purposed alteration or amendment shall be discussed and voted on at the next regular officer meeting.

3.3.4.2 Regulatory Tools

The legal and regulatory capabilities of the DOHFPD are shown in the table below, which presents the existing ordinances and codes that affect the physical or built environment of the DOHFPD. Examples of legal and/or regulatory capabilities can include: Yuba County building codes, zoning ordinances, subdivision ordnances, special purpose ordinances, growth management ordinances, site plan review, general plans, capital improvement plans, economic development plans, emergency response plans, and real estate disclosure plans.

Table 3–6 DOHFPD Regulatory Tools

Regulatory Tools (ordinances, codes, plans)	Y/N	Comments
Building code	Y	Uniform fire code and state code
Zoning ordinance	Y	County zoning
Subdivision ordinance or regulations	Y	State code
Special purpose ordinances (floodplain management, storm water management, hillside or steep slope ordinances, wildfire ordinances, hazard setback requirements)	Y	State and county as applicable
Growth management ordinances (also called “smart growth” or anti-sprawl programs)	N	
Site plan review requirements	Y	Based on county and state code
General or comprehensive plan	Y	Yuba County General Plan, Dobbins-Oregon House Community Plan
A capital improvements plan	Y	1,2,5,10,20 yr plan for DOHFPD facilities
An economic development plan	Y	2002 Dobbins Oregon House community plan
An emergency response plan	Y	DOHFPD standard operating plan in conjunction w/ sheriff’s department
A post-disaster recovery plan	N	
Real estate disclosure requirements	Y	State and county requirements
Habitat Management Plan	Y	Local, state, & federal ordnances
Master Drainage, Sewer, Water, & Reclaimed Water	N	
Redevelopment Master Plan	N	

3.3.5 Details of Ongoing & Completed Mitigation Strategies for DOHFPD (Actions, Measures, & Projects)

The development of mitigation projects within the DOHFPD are driven by two criteria; the existence of current assets and conditions, and the potential for the development of new assets and conditions.

The DOHFPD has taken a lead role in the development of solutions to the fire problems in the District since the late-1980s. The DOHFPD has the Chipping Program funded with Proposition 40 grant to reduce fuel load next to District residences and commercial properties; the Fuel Reduction Program which is an ongoing program to reduce the fuel loads along heavily traveled DOHFPD roads to a minimum 10 feet fuel buffer on both sides of the road; the Oregon Ridge firebreak, the FireSafe Community Prevention Plan; Soper Wheeler treatment; CHY treatment; and the Quincy Library Group Defensible Fire Protection Zone to reduce fuel loads within the DOHFPD.

In 2005, the Legislature passed and the Governor signed into law SB 1084 (Kehoe),which broadened the range of vegetation treatment practices specifically enumerated in the Public Resources Code, added a definition of “hazardous fuel reduction,” and made other changes to the major statutory provisions guiding CDF’s vegetation treatment authorities. See Public Resources Code sections 4461-4494.

Table 3–7 DOHFPD Current & Completed Mitigation Projects

Mitigation Project	Assets Effected	Project Description	Project Cost ($)	Project Goals	Other Benefits
Middlebrook coordinated fuel break	DOHFPD	Treat 40 acres of land within the community fuel break	58,800	Increase fire control capability	Reduce fire threat to the community
Donor/CHY Slapjack coordinated fuel break	DOHFPD	Treat 77 acres of land within the community fuel break	49,900	Increase fire control capability	Reduce fire threat to the community
County road fuel reduction treatment	Yuba county roads	Fuel reduction along 3.8 miles of county roads	55,000	Increase fire control capability	Reduce the potential loss of district wide assets,
Residential fuel chipping	DOHFPD residences	Chip fuel that foothills residents clear within 100' of their residence.	69,000	Reduce community fuel loads	Reduce or eliminate the potential loss of Agency equipment
Road fuel reduction treatment	Yuba county roads	Fuel reduction along 3.8 miles of county roads	38,000	Increase fire control capability	Reduce the potential loss of district wide assets,
Fire education & outreach Coordinator	Yuba County watershed	Fund the Yuba Watershed Protection Coordinator position	140,000	Organize grant projects, future plans, and applications	Uniform application of Fire Codes, ordinances for all districts
Road fuel reduction treatment	Yuba county roads	Fuel reduction along 5.2 miles of county roads	52,000	Increase fire control capability	Reduce the potential loss of district wide assets,
GIS of fire information	Yuba County	Coordination & development of digital information for fire mitigation planning	30,000	Increase fire control capacity	Increase ability to visualize county wide strategies

Mitigation Project	Assets Effected	Project Description	Project Cost ($)	Project Goals	Other Benefits
Community wildfire planning coordinator	Oregon House,	Drafted community plan, primary school fire education coloring books & evacuation packets	43,000	Increase public knowledge	
Water tanks	DOHFPD	Funded two 10,000 gallon water tanks	22,000	Increase fire fighting capacity	
Road fuel treatment	District wide county roads	Fuel reduction along 4.8 miles of county roads	48,000	Increase fire control capability	Reduce the potential loss of district wide assets,
Community wildfire planning coordinator	Foothills	Develop an evacuation plan for the foothills and restructure FireSafe Council	82,000	Facilitate fire prevention planning	
Fuel breaks	Oregon Ridge, Brownsville, & Camptonville	Fire fuel reduction to protect water quality	333,3000	Treated 12 miles of county road, masticated and under-burned 160 acres in Camptonville & Brown Valley, conducted fire education	Protect water quality
Biomass reduction	DOHFPD/CDF	Chipping	143,000	Reduce fuel load within communities	
Road fuel treatment	DOHFPD	Fuel reduction along county roads	43,000	Increase fire control capability	
Fellowship of Friends evacuation route	DOHFPD	Establish an evacuation route through the Fellowship	NA	Safe evacuation route for district residents	
EQUIP	DOHFPD	Rangeland improvement			
Under story reduction	DOHFPD	Mastication of fuel load	65,000	Fuel load reduction	

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4 Risk Assessment

DMA 2000 Requirements – Risk Assessment
Requirement §201.6(c)(2): The plan **shall** include a risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards/ Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.

This section describes the components of the risk assessment process, including a discussion of how DOHFPD identified our District hazards, which included discussions of the two wildland fires, Williams Fire in 1997 and Pendola Fire in 1999. The damage sustained and the impact from disasters and potential loss due to future occurrences was the focus of public discussion.

Community participation and input at public meetings provided additional information to profile hazards and secure local support for the process. A review of the DOHFPD asset inventory and the value of assets was a critical component requiring support and participation of allied agencies. The County MHMP provided the GIS hand help units for the District volunteers and firefighters to inventory our assets and critical infrastructure such as water sources and essential services protected by the District. The County MHMP staff assisted in developing the a vulnerability assessment for the District using the FEMA HAZUS information and the CDF Fire Vulnerability data. The impact of future development in the service area of DOHFPD and the potential hazards and risks were the basis used for the risk assessment.

According to FEMA, a risk assessment "is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards by assessing the vulnerability of people, buildings, and infrastructure to natural hazards" (FEMA 2001). Any mitigation activities to reduce loss of life and property must be based upon a thorough assessment of the risks to these assets.

The steps involved in conducting the risk assessment for our District included:

- A profile of the historical events and hazard occurrences in the District including the location, cause and extent of damage and the potential occurrences
- Probability of a hazard occurrence; such as fire history and probability, flooding from dam failure, severe winter storm impacts such as slip outs and landslides

- Vulnerability to assets and potential impacts; and the amount of damage sustained in previous disasters
- Analyze future development trends and what resources are needed and mitigation actions to prevent and reduce losses

These steps provided the basis for the risk assessment presented in this section.

4.1 Hazards

All hazards that may affect the DOHFPD, whether natural or man-made, are addressed in the plan. Natural hazards that arise from natural earth processes such as weather, lightening and winds that caused the tree to hit a power line causing the Pendola Fire is an event that was a natural and man-made event. Events of man-made or human caused origin include accidental intentional, or terrorist events such as the Williams Fire caused by faulty electrical wiring at a trailer used as a residence to hazardous materials spills. All hazards that may affect the District were considered and ranked according to the likelihood of their occurrence with public input and using the best-available knowledge and data.

Hazards included in the plan as potential threats to the District are described in terms of the nature of the hazard, their magnitude, duration, and location. Each hazard was summarized by its history of occurrence and the probability and location or future hazard events. This is accomplished through review of previous studies conducted by the county or other jurisdictions, including state and federal agencies. The County provided District maps information in hardcopy, to identify areas potentially at risk of a particular hazard to the District at all community meetings. Residents were encouraged to identify any potential hazards or risks and provide input regarding potential mitigation strategies or measures.
Each hazard will be described in an informative manner to ensure that users of this Plan who may be unfamiliar with a particular hazard will have a better idea of the potential for property damage or loss of life. Figures are referenced to help orient the reader to the potential locations of each hazard across the DOHFPD service area.

4.1.1 Identifying Hazards

DMA 2000 Requirements – Risk Assessment
Identifying Hazards **Requirement §201.6(c)(2)(i)**: [The risk assessment **shall** include a] description of the type … of all natural hazards that can affect jurisdiction. **FMA Requirement §78.5 (b)**: Description of the existing flood hazard and identification of the flood risk, including the estimates of the number and type of structures at risk, repetitive loss properties, and the extent of flood depth and damage potential.
Element A. Does the plan include **a description** of the types of **all natural hazards** that affect the jurisdiction? If the hazard identification omits (without explanation) any hazards commonly recognized as threats to the jurisdiction, this part of the plan cannot receive a satisfactory score. Consult with the State Hazard Mitigation Office to identify applicable hazards that may occur in the planning area.

The committee prioritized hazards by committee discussion, historical documentation and compiled public input. Numerous open public meeting were held with presentations concerning the DMA 2000 planning process. Speakers from other jurisdictions spoke to the committee and citizens on hazard profiles and mitigation.

DOHFPD used FEMA Workshop #1 "Identify the Hazards" to assess vulnerability and analysis. On February 24, 2005, a special meeting was held with the Dobbins-Oregon House Action Committee. The meeting was publicized in the Rabbit Creek Journal and a notice was posted at the U.S. Post Office. In addition, letters were sent to local businesses, churches, and fire agencies. The meeting was held at the Lake Francis Grange Hall in Dobbins. Over 55 persons were in attendance. The Disaster Mitigation Act of 2000's requirement for local mitigation plans was explained and a "PowerPoint" presentation was made covering the hazards listed below. The following document was distributed to meeting attendees for public input and discussed.

Document 4-1 Public/Committee Hazard Handout

Natural hazards located in the DOHFPD area of responsibility

Wildfire:
High fire fuel areas are located in several populated locations within our district. The three major areas of concern are sparsely populated yet densely over grown.

- An area bounded by Lake Francis road on the east, the Yuba River on the south, Dixon Hill road on the west and Texas Hill road on the north is comprised of steep, brush filled canyons that are not easily accessible. We have had a significant wildland fire in this area in each of the last two years
- A more densely populated area with slightly less fuel load is County Service Area #2. Many homeowners in the area have cleared vegetation surrounding their homes but interconnection properties, non-occupied property and some individual homeowners have left areas of dense vegetation.
- A low population density area bounded by Thousand Trails RV park on the south, and the district's boundary on the north lays on either side of Frenchtown road. This area has dense vegetation comprised of buck brush and manzanita.

During fire season, there is limited water to address the fires that may occur. Mitigation should be comprised of brush clearing and strategic water storage facilities.

Dam Failure: There are four reservoirs located within our district. Inundation maps detailing dam failure as well as the associated studies show that there are no effected populations within the dam failure areas.

Earthquake: USGS Peak Ground Acceleration (PGA) ratings will be made available and will aid in assessing the districts susceptibility to earthquakes.

Flood: Provide examples of creeks and streams that you are aware of that overflow their banks during high water periods.

Landslide: Provide information on previous landslides that have affected the district, and areas that you feel may be at risk .

Severe Winter Storm: Provide information on the problems that could affect the area in the event of a severe winter storm (power outages, frozen pipes, etc.).

Volcano: In the event that Mt. Lassen were to erupt, the district could be affected by falling ash.

Windstorm: Provide information on the problems that could affect the area in the event of a windstorm (trees, power lines, etc.).

Other Natural: Please list any other natural hazards that you feel could affect the area.

Document 4-2 Public/Committee Hazard Handout #2

DOBBINS / OREGON HOUSE HAZARD DEFINITION LIST

Man made hazards located in the DOHFPD area of responsibility.

Name and Location	Types of Hazards	Mitigation
Ace Hardware located at the intersection of Marysville & Willow Glen Rd.	Various flammable liquids, chemicals, & items normally Found in a hdwr str.	Installed and maintained a 3000 gallon water tank dedicated to fire suppression
Browns Gas located on Marysville Road in Oregon House	Large propane storage area, propane tanks, delivery system, trucks	Compliance with state & local regulations such facilities, well maintained grounds, appropriate training for on site personal.
Oregon House Deli & Store	Gasoline station, diesel Sales, propane storage & Sales, hay storage & sales.	Compliance with state & local regulations covering such facilities, well maintained grounds, appropriate training for on site personal.
Cardoza's Towing and Wrecking located on Marysville Rd At Indiana School Rd. Oregon House	Old cars and trucks on site containing various automotive products, i.e. Oil, gas, tires, etc.	completely enclosed facility that is regularly inspected by controlling authorities.
Thousand Trails RV Park Located on French Town Rd Oregon House, CA	Propane sales & storage, gasoline & diesel station RV storage facility	Compliance with state & local regulations covering such facilities, well maintained grounds, appropriate training for on site personal.
Lake Francis RV Resort Located on Lake Francis Rd Dobbins, CA	Propane sales & storage RV storage facility	Compliance with state & local regulations covering such facilities, well maintained grounds, appropriate training for on site personal.
Collins Lake RV Park Located on Collins Lake Rd Oregon House, CA	Propane sales & storage, gasoline & diesel station RV storage facility	Compliance with state & local regulations covering such facilities, well maintained grounds, appropriate training for on site personal.
Colgate Power Plant Located at the end of Lake Francis Dobbins, CA	Oil filled transformers, High voltage power lines Gas & Diesel tanks	Well maintained facility, regulated and inspected by state and federal officials
Numerous bridges over various Streams, gullies, and creeks	Often built by individuals without inspection or Engineering	Inspection and certifications would be Highly desirable in order to assure emergency vehicle and first responder safety. Mitigation could be the documentation of these bridges.

Natural hazards located in the DOHFPD area of responsibility

There are four reservoirs located within our district. Inundation maps detailing dam failure as well as the associated studies show that there are no effected populations within the dam failure areas.
High fire fuel areas are located in several populated locations within our district. The three major areas of concern are sparsely populated yet densely over grown.

An area bounded by Lake Francis road on the ease, the Yuba River on the south, Dixon Hill road on the west and Texas Hill road on the north is comprised of steep, brush filled canyons that are not easily assessable. We have had a significant wild land fires in this area in each of the last two years

A more densely populated area with slightly less fuel load is County Service Area #2. Homeowners in the area have cleared vegetation surrounding their homes but interconnection properties, non-occupied property and some individual home owners still leave a very undesirable situation.

A low population density area bounded by Thousand Trails RV park on the south, and the district's boundary on the north lays on either side of Frenchtown road. This area has dense vegetation comprised of buck brush and manzanita.

During fire season, there is limited water to address the fires that may occur. Mitigation should be comprised of brush clearing and strategic water storage facilities.

The hazards presented in Table 4–1 below summarize the public discussion at the meeting and input from DOHFPD committee members and stakeholders.

4.1.1.1 Location, Extent, Magnitude, and Severity of Each Identified Hazard

This section documents the process for identifying potential hazards to the DOHFPD. The requirements for this process are described in DMA 2000 and summarized below.

The DOHFPD Hazard Mitigation Committee completed the FEMA Workshop #1 "Identify the Hazards". The Workshop tasks include:

- Listing the hazards that may occur
  - Research newspapers and other historical records
  - Review existing plans and reports
  - Consult with experts in the area
  - Gather information on Internet websites
- Focus on the most prevalent hazards in the community
  - Go to hazard websites
  - Locate your agencies or state on the website map
  - Determine whether DOHFPD is in a high-risk area. Get more localized information if necessary

DOHFPD used the tools above as a baseline. With collaboration with other agencies such as Fire Districts, Reclamation Districts, and County of Yuba OES, DOHFPD referenced their historical disaster data, local disaster recovery data, GIS/HAZUS mapping, and local Emergency Operations Plans to assess their risk to each disaster.

On February 24, 2005, a special meeting was held with the Dobbins-Oregon House Action Committee. The meeting was publicized in the Rabbit Creek Journal and a notice was posted at the U.S. Post Office. In addition, letters were sent to local businesses, churches, and fire agencies. The meeting was held at the Lake Francis Grange Hall in Dobbins. Over 55 persons were in attendance.

As a result from the meetings, public discussion, and input from stakeholders, the hazards were prioritized into three threat risk categories of low, moderate, or high risk to the DOHFPD. These rankings are presented in Table 4–1. The greatest natural hazard to the DOHFPD is fire. There is also minor hazard of localized stream flooding.

Table 4–1 Hazard Rank Priorities DOHFPD

High	Moderate	Low
Fire	Earthquake	Avalanche
Transportation Incident/Accident	Dam Failure	Volcano
Hazardous Materials	Flooding	
Severe Weather/Winds	Landslide	
	Drought	
	Terrorism/WMD	

Currently, the greatest natural hazard to the DOHFPD is fire. There is also minor hazard of localized stream flooding. The mitigation section addresses these natural hazards exclusively, and the remaining hazards are not addressed further.

4.1.1.2 List and Description of All Natural Hazards Affecting Jurisdiction (Technological and Human-Caused Hazards)

Table 4–2 DOHFPD Summary of Profiled Hazards

Hazard	Description	Justification for Inclusion
Fire	The foothill areas of Yuba County have a long history of wildfire.	Drought, extreme heat, winter storms, windstorms all add to fire threat. High fire area, high fuel loads. Williams and Pendola fires both in DOHFPD.
Transportation Incident/Accidents	Emergency Response Evacuation Routes	Maintain the ability to adequately respond and effectively treat injured people. Equipment and training for volunteers is critical for providing life saving measures.
Man Made	Hazardous materials	Impact varies by location and type of material released and dispersion mechanism.
Severe Winter Storms - Windstorms	Large amounts of falling or blowing snow and sustained winds of at least 35 miles per hour occurring for several hours.	Snow load or wind damage mostly to tree limbs or uprooting. Tree damage raises level of fuel load and fire threat.
Earthquakes	No active faults are present in Yuba County; however, several faults have been identified with displacement in the geologic past (greater than 10,000 years ago). Minor earthquakes do occur within the county and in adjacent counties. The largest recent earthquakes occurred in Butte County south of Lake Oroville with a maximum magnitude of 5.7. See 2004 Seismic Study for Bullard's Bar Dam.	Minor threat
Dam Failure	Dam failure -Yuba County has not suffered a dam failure in its history. However, because of the large population living downstream of DOHFPD dams, and the potential for future development downstream, a failure of any of the dams would result in significant damages to property and potentially the loss of life.	Four dams within the District: Los Verjeles Dam Virginia Ranch Dam Lake Francis Dam New Bullards Bar Dam No significant impact on residences in District.
Flood	Yuba County has a long history of catastrophic flooding events involving both the Yuba and Feather Rivers. Five major floods since 1950 have resulted in loss of life, significant property damage, and constrained economic development in the area.	Minor stream flooding occurs in DOHFPD Reduce District's ability to provide services to a small portion of population. Flooding due to earthquake and dam failure. Lake Francis inundation area includes homes and evacuation routes.

Landslide	Landslides occur in several forms: slumps, slides, flows and falls of rock, mud, earth and debris. Several millions dollars of infrastructure could be potentially damaged by the effects of landslides.	Landslides in DOHFPD could damage access roads which could affect response time
Drought & Extreme Heat	Long periods without substantial rainfall. Temperatures that remain 10 degrees or more above the average high temperature for the region and last for several weeks.	Causes secondary effect by raising fire threat due to dry timber. Increased risk of fire and impact to most of the District.
Terrorism	Water systems such as; dams, levees, reservoirs, lakes, and rivers are a terrorist target. If any of the dams, levees, or local water systems were affected by an act of foreign or domestic terrorism, the effects could include, but not be limited to, dam failure, extensive flooding, water contamination, and financial crisis. The threat of foreign terrorism is of concern in Yuba County given the area's military and transportation infrastructure and critical facilities. Yuba County, like other jurisdictions or communities in the U.S., is not immune to the threat of domestic terrorism. The 1992 Lindhurst High School shootings in the community of Olivehurst is an example of this type of threat.	

Yuba County Historical Natural Disasters

Over the last twenty-five years Yuba County has experienced an inordinate number of natural disasters including floods, catastrophic wildfires, and State and Federal-declared agriculturally-related disasters due to severe weather conditions. Table 4-3 provides an illustration of the significant catastrophic disasters which have occurred in Yuba County and affected the Dobbins-Oregon House Fire Protection District since 1986. While the DOHFPD was not affected directly by many of the Yuba County disasters, due to its location above the Yuba River flood plain, it was significantly impacted by the disaster related economic impacts and evacuations associated with these events.

Table 4–3 Historical disasters impacting DOHFPD

Disaster Title	Type/Agency	Loss/Cause	Date
South Yuba County Flood	Broken Levee Federal and State-declared disaster	One death, 10,700 acres flooded, 3,000 homes damaged, $95 million in damages	February 1986
Williams Fire	Wildland Fire Federal and State-declared disaster	5,743 acres burned on county, state and federal land $19 million in damages	September 1997
South Yuba County Flood	Broken levee, Federal and State-declared disaster	3 deaths, 38,300 residents evacuated, $358.6 million in damages	January 1997
Localized Flooding	Winter storms/flooding	County-wide damage	February 1998
Pendola Fire	Wildland Fire Federal and State-declared disaster	11,743 acres burned, $19 million in damages	October 1999
Winter Storms	Winter Storms Flooding	County-wide damage	December 2005-January 2006
Marysville Road Fire	Wildland Fire	One Structure	August 2006

4.1.1.3 Non-Profiled Hazards

The hazards listed in Table 4-4 were excluded from profiling and further risk assessment consideration. In general, these hazards are considered to pose a lower threat to life and property in the sphere of influence of the DOHFPD due to the low likelihood of occurrence or the fact that it is unlikely that life and property would be significantly affected. Should the risk from these hazards increase in the future, the plan can be updated to incorporate vulnerability analyses for these hazards.

Table 4–4 Hazards Excluded from Profiling

Hazard	Description	Reason for Exclusion
Avalanche -	A mass of snow moving down a slope. There are two basic elements to a slide: a steep, snow-covered slope and a trigger.	Areas where heavy snowfall is likely to occur are largely uninhabited in the DOHFPD service area.
Volcano	A volcano is a mountain that is built up by an accumulation of lava, ash flows, and airborne ash and dust.	No active volcanoes in Yuba County. The Sutter Buttes, approximately 15 miles west of Yuba County, are the remains of an extinct volcano with an eruptive history. In May 1915, **Lassen Peak**, California, the southern-most active volcano in the Cascade Range, erupted explosively. Avalanches, mudflows, and flows of hot ash and gas devastated nearby areas, and volcanic ash fell as far away as 200 miles to the east. The Lassen area remains volcanically active, and the volcano hazards demonstrated in 1915 still can threaten not only nearby areas but also more distant communities. Recent work by scientists with the U. S. Geological Survey (USGS) in cooperation with the National Park Service is shedding new light on these hazards. -- *Clynne, et.al., 2000, USGS Fact Sheet 022-00* Lassen Peak is 100 miles north of Wheatland. **Mt Shasta** is still considered to be an active volcano, which is 193 miles north of Yuba County. Fallout depending on prevailing winds could be a remote threat; secondary effects from ashfall.
Tsunami	Rapidly moving wave, or series of waves, caused by earthquakes or undersea landslides.	There are no coastal areas in Yuba County.

Hazard	Description	Reason for Exclusion
Expansive soils	Expansive soils shrink when dry and swell when wet. This movement can exert enough pressure to crack sidewalks, driveways, basement floors, pipelines and even foundations.	Presents a minor threat to limited portions of the county.
Hailstorm	Can occur during thunderstorms that bring heavy rains, strong winds, hail, lightning and tornadoes.	Occurs during severe thunderstorms, which only occasionally occur in the region.
Land subsidence	Occurs when large amounts of ground water have been withdrawn from certain geologic formations. The rock compacts as water is withdrawn because the water is partly responsible for supporting surrounding formations.	No historical record of widespread occurrence of this hazard.
Tornado	A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. It is spawned by a thunderstorm (or sometimes as a result of a hurricane) and produced when cool air overrides a layer of warm air, forcing the warm air to rise rapidly. The damage from a tornado is a result of the high wind velocity and windblown debris.	Less than one tornado event, on average, is observed in the entire State of California in any given year. However, in May 2005 a tornado touched down in adjacent Sutter County and the funnel cloud crossed Yuba County.
Windstorm	A storm accompanied by sustained high winds. Widespread damage may occur when winds reach hurricane force (greater than 74 miles per hour).	Winter storms are known to be accompanied by high winds. However, levels of damage are historically minor compared to those accompanying other hazards.

4.1.2 Profiling All Hazards

DMA 2000 Requirements – Risk Assessment
Profiling Hazards **Requirement §201.6(c)(2)(i)**: [The risk assessment **shall** include a] description of the … location and extent of all natural hazards that can affect the jurisdiction. The plan **shall** include information on previous occurrences of hazard events and on the probability of future hazard events. **FMA Requirement §78.5 (b)**: Description of the existing flood hazard and identification of the flood risk, including the estimates of the number and type of structures at risk, repetitive loss properties, and the extent of flood depth and damage potential.
Element A. does he risk assessment identify the **location** (i.e., geographic area affected) of each natural hazard addressed in the plan? B. Does the risk assessment identify the **extent** (i.e., magnitude or severity) of each hazard addressed in the plan? C. Does the plan provide information on **previous occurrences** of each hazard addressed in the plan? D. Does the plan include the **probability of future events** (i.e., chance of occurrence) for each hazard addressed in the plan?

4.1.2.1 Fire

Potential to wildfire, urban/wild land interface, fire hazard severity, threat to people
The DOHFPD as rated Fire as a High Priority Hazard.

Factors which figured predominately in the levels of damage from fires are:

- Impact of combustible vegetation
- Impact of inadequate defensible space around affected buildings
- Impact of construction materials and practices
- Impact of wind driven aspect of the fires

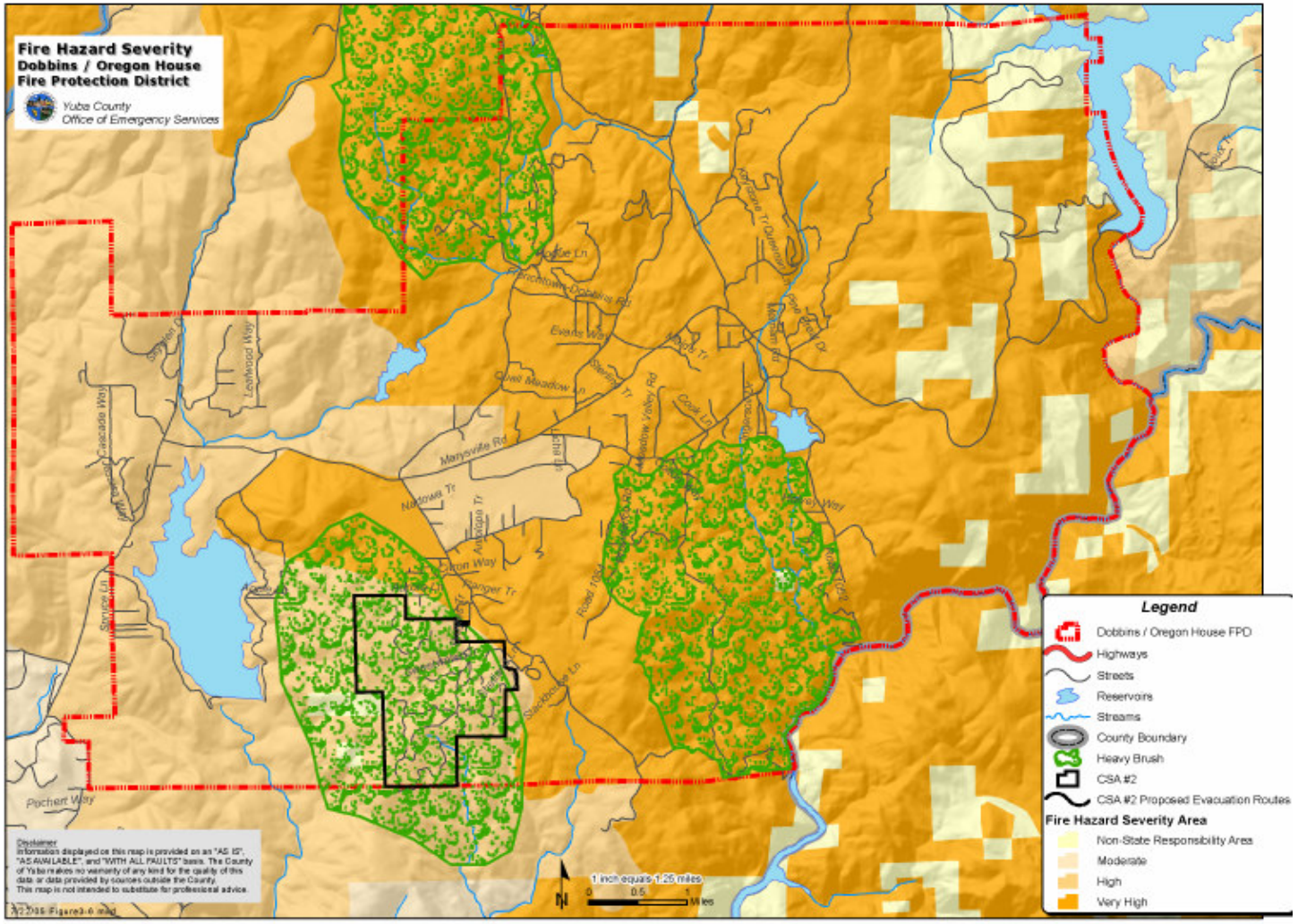
The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) assesses the amount and extent of California's forests and rangelands, analyzes their conditions and identifies alternative management and policy guidelines. Their research into fire potential in the Yuba County foothills is important in the assessment of current fire conditions and fire potential in the jurisdiction.

This section describes the location, extent, magnitude, and severity of the fire hazard in the DOHFPD jurisdiction. Figures graphically depict the assessment of fire conditions and the potential for destructive wildland fires in the jurisdiction.

4.1.2.1.1 Location, Extent, Magnitude, & Severity of Fire Hazard

According to the California Department of Forestry, the agency responsible for fighting wildland fires in the DOHFPD, about 80 percent of the DOHFPD is classified as “Very High Fire Hazard Severity” with the remaining 20 percent “High Fire Hazard Severity”. The fire severity for the DOHFPD is illustrated in Figure 4–1.

Figure 4–1 DOHFPD Fire Severity



From May to October of each year, the DOHFPD faces a serious threat from wildland fires. Undeveloped rugged terrain, with heavily-forested and highly flammable brush-covered land, long dry summers with high temperatures and high winds may exacerbate the potential for wildland fires. Threat levels are also exacerbated during this period when the population doubles due to a large influx of recreational visitors and tourists who frequent the DOHFPD. This additional transient population increases the potential for wildland fires from camping, off-road vehicle use, and improper fire prevention practices.

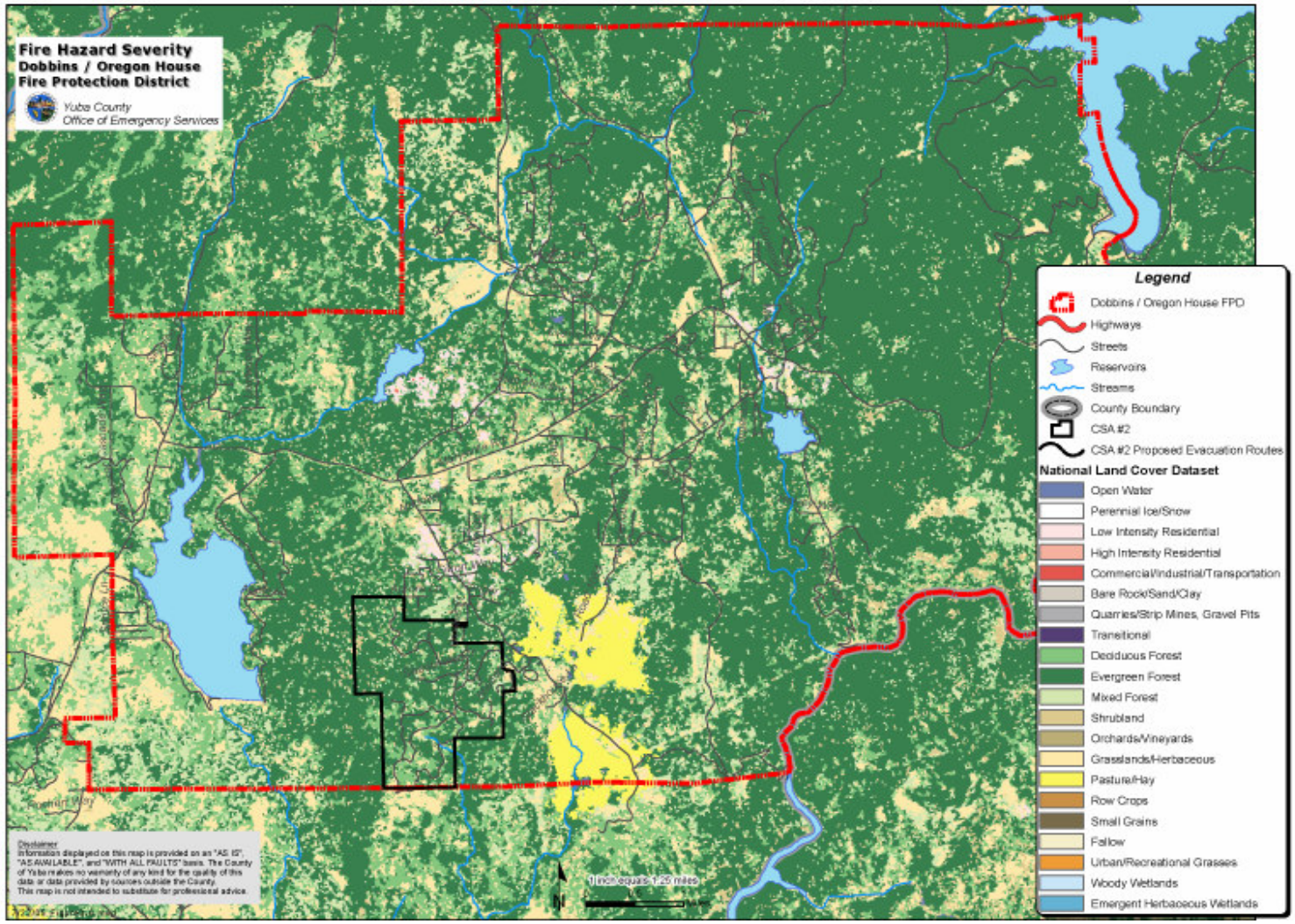
The entire parcel value of structures, $115,515,808 can be considered potentially damaged in the event of a wildland fire (*source: Yuba County Assessor's Database, Improved Value, 2005*). This does not account for content losses, functional downtime, and loss of economic activity. Loss of the properties represents a loss to the DOHFPD of $37,264 in assessment fees. Across the DOHFPD, the exposure of DOHFPD-owned property is $490,750 in structure losses and $490,750 in DOHFPD owned buildings (Yuba County Assessor's Office; records 2004). If the Williams Fire were to occur today, the financial loss would be approximately $29,849,987 (based on current, 2005 assessed structural improvements), and approximately $4,714,154 for a repeat of the Pendola Fire.

High risk areas of concern that are densely overgrown and located within the DOHFPD include:

- The area bounded by Lake Francis Road, Dixon Hill Road, Texas Hill Road, and the Yuba River discussed above.
- Lower LaPorte Road along South Honcut Creek and up Wildcat canyon; roughly the region bounded by New York Creek on the northeast and Dry Creek on the east to Natchez Creek on the west
- Frenchtown and Forsythe Roads south from Brownsville to Dobbins-Oregon House.
- Finley Hill, Willow Glen Road; roughly between South Honcut Creek and Dry Creek have low population density
- County Service Area #2 is a densely-populated area with slightly less fuel load. Most of the homeowners in the area have cleared vegetation surrounding their homes but interconnected properties, non-occupied property and some individual homeowners have not cleared or cleared sufficiently to reduce the high fire danger.
- A low population density area bounded by Thousand Trails Resort on the south, Frenchtown Road on the east, and the DOHFPD's boundary on the west and north. The area has dense vegetation comprised of buck brush and manzanita.

These areas of heavy vegetation are shown in Figure 4–2. The Yuba County Watershed Protection and Fire Safe Council have been at the forefront of a combined effort to reduce the risk of wildfire in the foothills of Yuba County and the DOHFPD. The image shows the areas where brush clearing or fire reduction have been performed and road sides that have been cleared of excess brush, as well as areas of proposed fuel reduction.

Figure 4–2 DOHFPD Vegetation Coverage

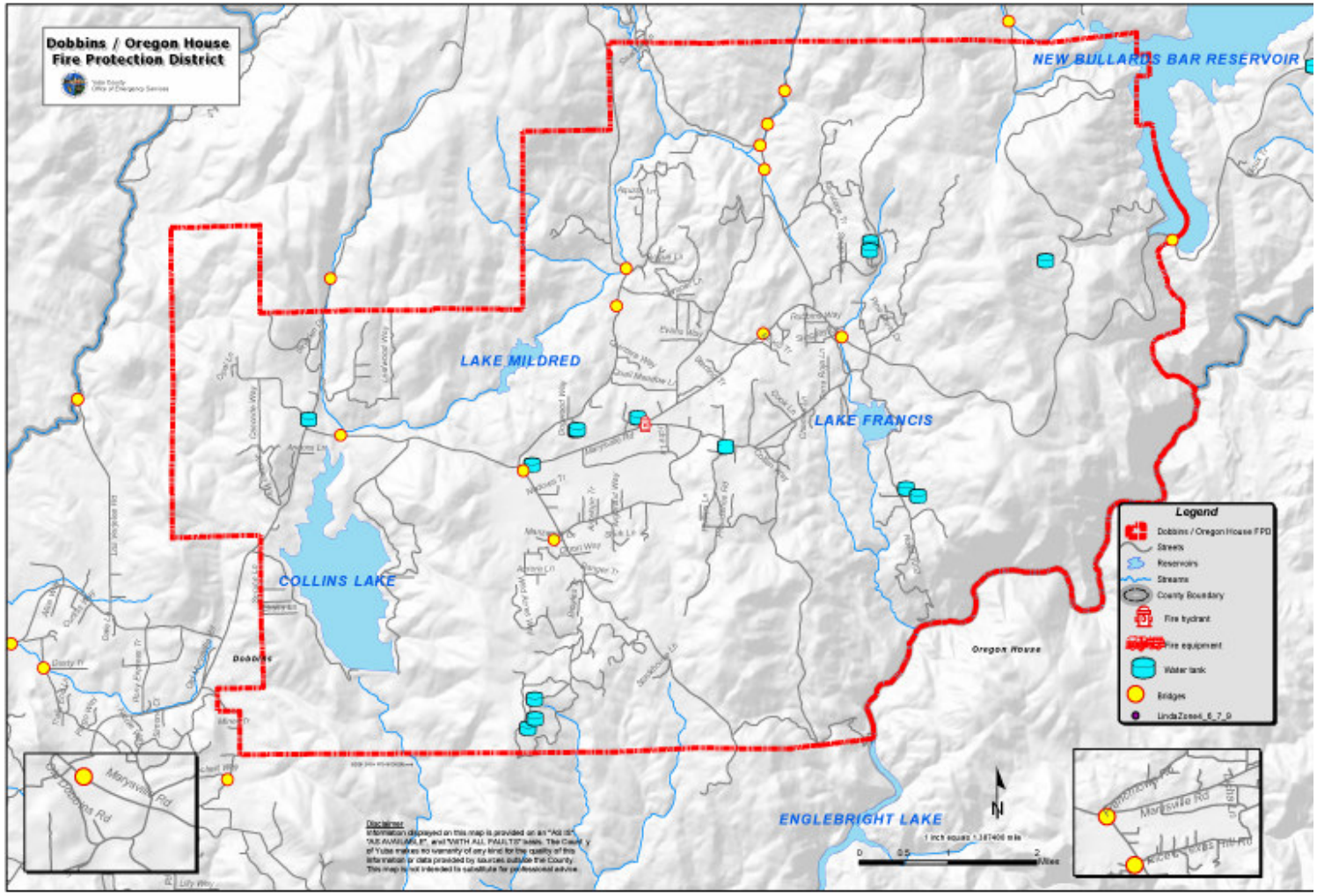


During fire season, there is limited water supply available to address the fires that may occur in the District. Refer to the Water Resources discussion below for further discussion.

An additional risk factor is access to and egress from many residential parcels due to rural, private roads. Access over bridges, culverts, and stream crossings are often inadequate to handle the height, width, or weight of emergency vehicles and the traffic that may result from an evacuation. Figure 4–3 shows the location of bridges within the DOHFPD.

Four two-lane bridges exist on Marysville Road in the DOHFPD. These four bridges range in width from 23.0' over Little Dry Creek to 27.5' over Collins Lake. The four Marysville Road bridges range in length from 25.6' over Dobbins Creek to 320' over Collins Lake.
Seven other bridges exist in the DOHFPD on Frenchtown Road, Rice's Crossing, Forsythe Road, Manzanita Lane, and Indiana Ranch Road. The two Frenchtown Road bridges crossing Dry Creek are 17.6' and 18.5' wide, 22.4' and 112' in length, and have a maximum weight limit of 22 tons (source: CalTrans, Structure Maintenance and Investigations, Yuba County Bridge List, February 2005).

Figure 4–3 DOHFPD Bridges and Water Location



Evacuation Routes
Preliminary evacuation routes for the DOH jurisdiction (Figure 4-4) were identified as a result of previous evacuations from the Williams Fire and the Pendola Fire through the Multi-Hazard Mitigation Project must be sanctioned by the Board of Supervisors.

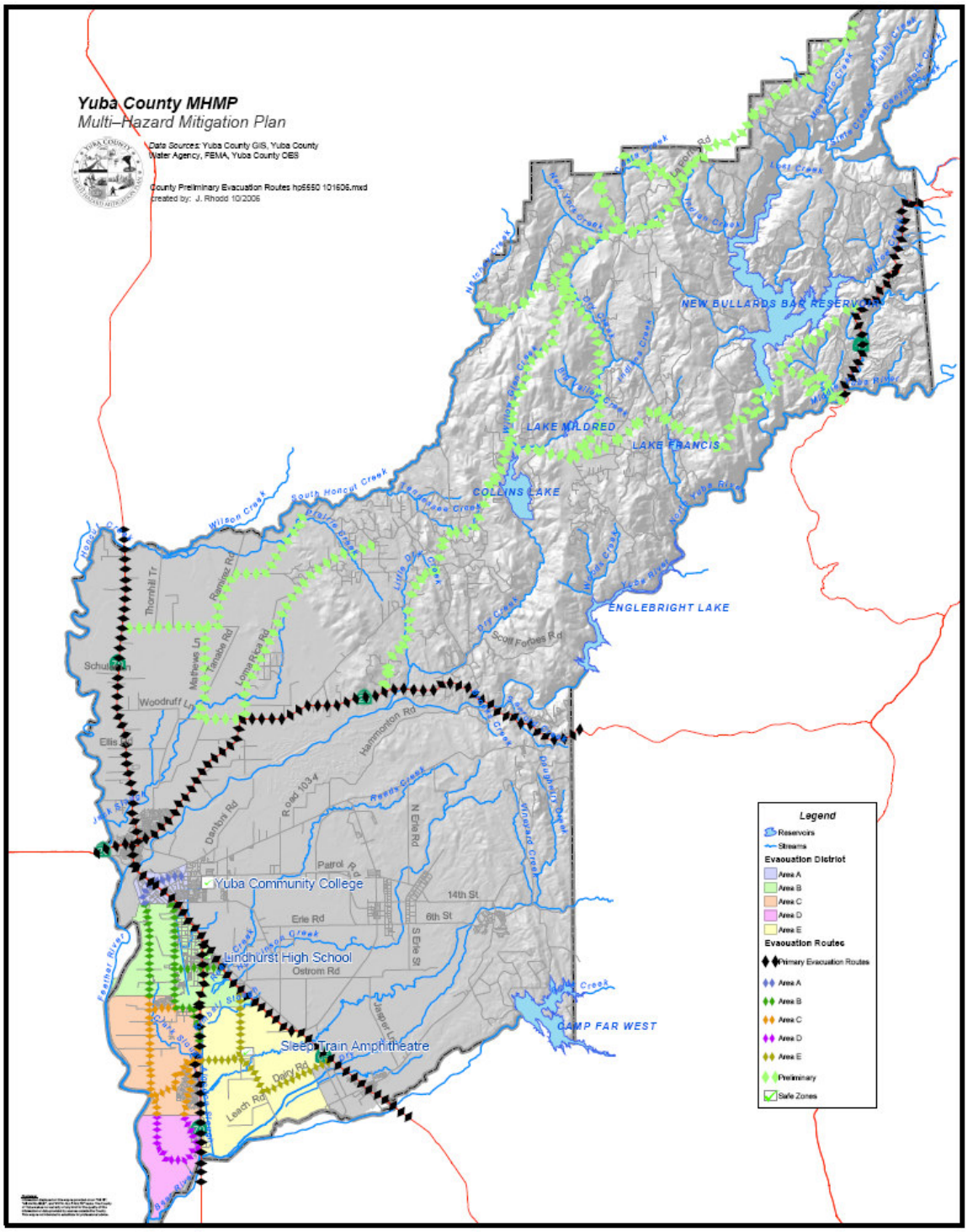
Evacuations can be called by the Board of Supervisors or whomever is authorized to act on their behalf, local governing bodies of Marysville and Wheatland or whomever is authorized to act on their behalf; statutorily-designated law enforcement officers; statutorily-designated health and public safety employees; and the Governor (Grundman, 1999).

The main transportation corridor for the DOHFPD is Marysville Road, a two-lane road traversing the DOHFPD from east to west. Marysville Road initiates at State Highway 20 at the west end of the DOHFPD and terminates in the east at State Highway 49. Within the DOHFPD, Marysville Road is fed by Frenchtown Road from the north and Rice's Crossing from the south.

Evacuation Notification
Residents in DOHFPD will be advised of potential hazards and the possibility of evacuation. Residents will be given information regarding travel routes and safe locations, and should be prepared for any of the following alternatives:

- **Precautionary:** Areas under a "Precautionary Evacuation" are in the hazard's influence zone. While not in immediate danger, changes in weather and/or hazard conditions could rapidly cause a threatening situation to occur. DOHFPD residents should be prepared to evacuate at a moment's notice. Those requiring extra time to evacuate should leave.
- **Immediate Threat:** An "Immediate Threat Evacuation" would be issued when the hazard is moving toward an area and there is an immediate threat to life and property. Whenever an area is under "Immediate Threat", all roads in the area will be closed to incoming traffic.

Figure 4–4 Yuba County Evacuation Routes



Water Resources
During fire season, access to water is limited to fight fires that may occur in the DOHFPD. However, the DOHFPD has written agreements with the Yuba County Water District, Browns Valley Water District, Yuba County Water Agency, and Thousand Trails Resort, to use water from their irrigation systems and lakes for fire fighting and suppression. To meet the DOHFPD's primary responsibility for fighting structure fires, water is pumped into tenders from irrigation ditches and Collins Lake.

When necessary for larger or wild land fires, water can also be pumped from Lake Mildred and New Bullard's Bar Reservoir. Water from Lake Mildred, Collins Lake, Lake Francis and New Bullard's Bar Reservoir can be accessed through aerial pickup. In addition, there is a hook-up station at the base of Lake Francis Dam however, vehicle access is limited.

Additionally, there are 13 water storage tanks within the DOHFPD that are used to fight fires (Figure 4–4). The tanks are strategically placed within the DOHFPD to provide quick access to fire response units. The tanks range in capacity from 2,500 to 10,000 gallons. The tanks are refilled through water from irrigation canals and ditches. There are also many privately-owned tanks on residences across the DOHFPD that are refilled from well water or springs.

4.1.2.1.2 Previous Occurrences & Probability of Future Occurrence of Fire Hazard

Historical Occurrences.
The DOHFPD has had approximately eight major fires since 1950. The two most recent major wild land fires have destroyed thousands of acres and hundreds of structures in the DOHFPD. A history of fire in the foothills of the county is presented in Figure 4–5 This image based on CDF fire history data, shows the vast area that has been burned in the foothills since 1900.

The Williams Fire destroyed 5,743 acres of vegetation, 91 housing structures, 136 out-buildings and 184 vehicles (NEU-11935). The fire started in September 1997. Weather conditions were hot that day, 86 degrees, with 8-20 mph winds gusting to 39 mph. The average age class of the fuels in the area was over 40 years old. The fire started approximately two miles north of the community of Dobbins, and was determined to have been caused by an electrical short in a motor home. Before the fire was contained, 186 engines, 45 hand crews, 27 dozers, 21 water tenders, six helicopters, seven air tankers and 201 overhead personnel were assigned to fight the fire. The DOHFPD committed a total of 18 personnel and assisted in the initial attack with Engine 6571 and Tender 6591, plus an additional 12 personnel at the Foothills Station H1 Incident Command Post to aid in logistics and planning.

Break out of Damage in Dollars
There was a total of $19 million dollars in damage to buildings, equipment, and land.

Structures:

36 Frame Houses	$4,828,380
55 Modular Homes	$4,286,280
6 Commercial Buildings	$997,000
103 Out-Buildings	$286,537
023 Garages	$254,000
10 Barns	$145,000
038 Travel Trailers	$275,000
009 Recreational Vehicles	$208,000
014 Miscellaneous	$28,000
PG&E	$200,000

Natural Resources

2,940 acres oak pine grass	$6,174,000
330 acres timber	$1,320,000
1,570 acres brush	$314,000
970 acres grass	$194,000

(source: Williams Incident NEU-11935, 9/27/97; Damage Assessment Report Summary)

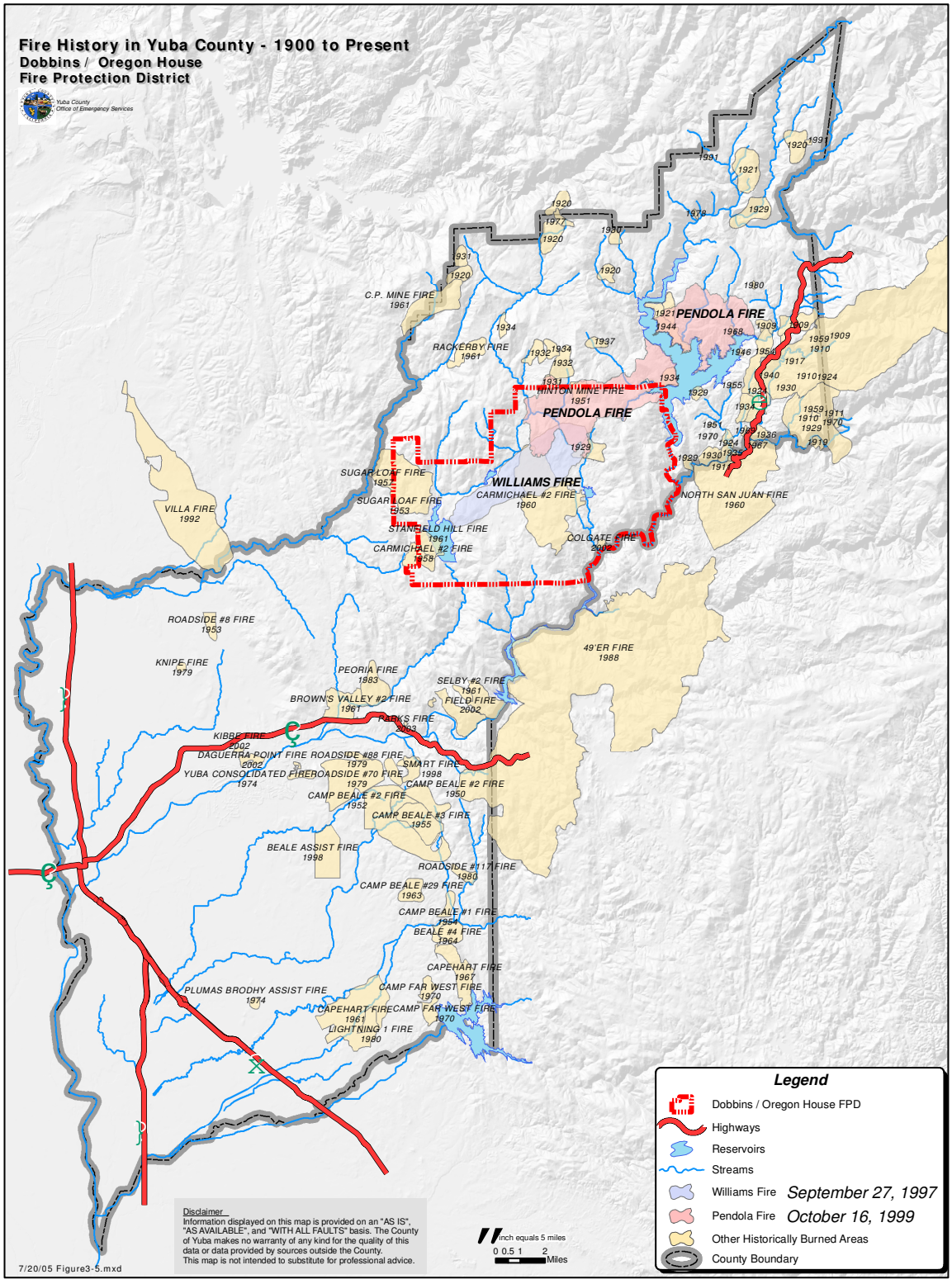
The Pendola Fire burned a total of 11,725 acres of vegetation and timber beginning October 16, 1999. Fourteen residences, three commercial buildings, 65 out-buildings, and 41 vehicles were destroyed by the fire (NEU-15141). The cause of the fire was determined to be from a wind thrown conifer that fell onto an electrical power line just west of the Pendola Road/Pendola Extension. Weather on the day the fire started was hot, dry and windy. At the height of the incident there were a total of 2,505 resources assigned to the incident. A total of 31 different agencies, fire departments and cooperators participated. The DOHFPD assisted with the initial attack by committing 16 total personnel, Engine 6571 to Camptonville and Engine 6581 and Tender 6591 to Challenge.

Break out of Damage in Dollars

Structures (Includes residential, commercial, outbuildings and vehicles)	$2,091,190
Estimated smoke damage to saved homes	$500,000
PG&E loss for transmission and distribution systems	$95,000
TOTAL	**$2,696,190**

(source: After Action Report; Pendola Incident; TNF-015208; Oct 16-26, 1999)

Figure 4–5 Yuba County Fire History



Other Significant Wild land Fires

The Lague fire occurred in October 1999 and consumed 200 acres in Rackerby. In addition to CDF command, DOHFPD committed ten personnel and Engine 6581 in the initial attack. Engine 6571 assisted as the other resources were committed to the Pendola Fire.

The Clark fire in April 1994 involved 20 acres on Indiana Ranch Road. The DOHFPD committed seven personnel to the incident.

CDF Fire #7965 in September 1994 occurred on La Porte Road. The DOHFPD committed nine personnel and Engines 6581, Tender 6591, and 6561 to the effort.

Fires have occurred in both 2002 and 2003 in an area bounded by Lake Francis Road on the east, the Yuba River on the south, Dixon Hill Road on the west and Texas Hill Road on the north, comprised of steep, brush filled canyons that are not easily accessible.

During 2004, the DOHFPD responded to:
6 structural fires, 13 vehicle fires, and 19 vegetation fires.

The Fire Department typically responds to 250-300 incidents a year, with calls ranging from vehicle accidents to fires. In 2003, the Fire Department responded to 12 vehicle fires, 20 wildland fires, 5 structure fires, and 14 reports of smoke

Likelihood of Future Occurrences.

According to the California Department of Forestry, the agency responsible for fighting wild land fires in the DOHFPD, about 80 percent of the DOHFPD is classified as “Very High Fire Hazard Severity” with the remaining 20 percent “High Fire Hazard Severity” (Figure 4–1).

High-risk areas of concern that are densely overgrown located within the DOHFPD include:

- The area bounded by Lake Francis Road, Dixon Hill Road, Texas Hill Road, and the Yuba River discussed above.
- Lower LaPorte Road. along South Honcut Creek and up Wildcat canyon; roughly the region bounded by New York Creek on the northeast and Dry Creek on the east to Natchez Creek on the west
- Frenchtown and Forsythe roads, south from Brownsville to Dobbins-Oregon House.
- Finley Hill, Willow Glen Road; roughly between South Honcut Creek and Dry Creek have low population density
- County Service Area #2 is a densely-populated area with slightly less fuel load. Most of the homeowners in the area have cleared vegetation surrounding their homes but interconnected properties, non-occupied property and some individual homeowners have not cleared or cleared sufficiently to reduce the high fire danger.
- A low population density area bounded by Thousand Trails Resort on the south, Frenchtown Road on the east, and the DOHFPD’s boundary on the west and north. The area has dense vegetation comprised of buck brush and manzanita.

These areas of heavy vegetation are shown on Figure 4–3. The future risk of fire within the DOHFPD will depend heavily upon the mitigation projects undertaken within the district.

An important aspect of protection against wildland fire is early warning. This early warning can and should include detection and reporting of illegal controlled and debris burning. Responding to illegal burning before it extends to the wildland prevents disastrous fires. When fire suppression resources are applied to a growing wildland fire early in its progression the severity of damage and threat to life is reduced.

Currently, due to budget constraints, the California Department of Forestry and Fire Protection (CDF) has cut back or eliminated funding to staff lookout towers. The rationale is that with increased population in the wildlands and the Wildland Urban Interface (WUI), and people traveling about with cell phones, fires will be reported without the lookouts.

To a significant degree local public/cell phone reporting of fires works. But, under some circumstances, such reporting either doesn't happen, or it provides misleading information. In foothill and mountain terrain there are many locations where cell phones don't work. Further, the Reporting Party (RP) can, for various reasons, either be incapable of reporting the location of what he or she sees with reasonable accuracy or even that it is in fact smoke. Some examples include reporting a boiling over car as a vehicle fire and the RP reporting his/her current location as the location of the fire (which may be significantly distant from the fire).

It is important to note that just the difference in suppression costs for a fire caught early, versus the costs if the fire were well under way before response occurred, may exceed the cost of staffing several lookouts. Well trained and experienced lookouts can many times pinpoint the exact location of smoke. Inexperienced volunteer lookouts can at least warn that a fire has started, provide accurate azimuth data and usually ballpark distance estimates. The first report from a lookout alerts other lookouts and will usually provide sufficient information for another lookout to be able to visually acquire the smoke. This allows a "cross report" and therefore the ability to pinpoint the location of the fire.

Another important aspect of keeping lookout towers staffed is that local or cell phone reports of fire can be verified or enhanced by the lookout's observations. The local report may bring a smoke to the lookout's attention more rapidly than he/she would have otherwise picked it up. Intense scanning of the suspected area with binoculars will reveal whether smoke is actually visible, and if so a report will be made giving more information. If no smoke is seen, responses can be cut back and avoid such expenses as launching air tankers for an overheated radiator or a dust cloud.

There are two lookout towers in Yuba County. One, Pike County Peak near Challenge, is professionally staffed by a U.S. Forest Service employee. The other, staffed by volunteers, is on Oregon Peak near Dobbins. A training program has been established for the Oregon Peak

volunteers and several memory jogging aids have been strategically placed in the tower. Performance of volunteers is intermittently monitored by listening to reports they make to the Command Center by the volunteer coordinator and evaluating reporting procedures and the accuracy of reports based on the actual location of the fire. Liaison with the professional staff at Pike County Peak has helped immensely in identifying and correcting problem areas in general, and with specific volunteers.

Planning calls for continued staffing of Oregon Peak with volunteers during fire seasons. Daily staffing will be during times of highest fire danger, up to 12 hours during "Red Flag" conditions. Continued monitoring by the volunteer coordinator will be used to identify problem areas including any special attention needed for particular volunteers. Performance will be evaluated and updated as experience provides insight into procedural and training deficiencies. Additionally, cooperative liaisons will be established with the volunteer programs at Wolf and Banner Mountains in Nevada County.

4.1.2.2 Transportation Incident/Accidents

The term Multi-Casualty Incident, or MCI, if often applied to transportation accidents involving multi-vehicle highway accidents. Effects may include serious injuries, loss of life, and associated property damage. Because large numbers of patients may be involved, significant MCI's may tax local emergency medical and hospital resources, and require a regional response.

Multi-Causality Incidents may occur at any time of the day or night, throughout the DOHFPD. The volume of traffic and transportation movement on State Highways 20 and 49 present a high probability for MCI's. Other streets are not exempt from this hazard but the majority of MCI's tend to occur on these main thoroughfares frequented by commercial vehicles transporting goods to other areas of the state. Trucks hauling lumber from the foothills and mountains, and gravel trucks transporting rock, gravel and sand are at risk for MCI's. Adverse weather, primarily fog may effect driving conditions, especially in the winter months, increasing the likelihood of a MCI

4.1.2.2.1 Location, Extent, Magnitude, and Severity of Transportation Incident/Accidents

The major loss of transportation elements in this DOHFPD could have serious effects on the DOHFPD's economy and ability to provide services. Generally, when transportation loss is addressed, it is assumed that it would be long term and affect a populated area. Loss of travel ability on the road system would result in loss of commerce (pick-up and delivery of goods, delivery of services, etc.). Also, it may seriously degrade the ability of the DOHFPD to provide emergency services to its citizens by delaying response times or cutting off routes to stationed equipment (fire, law enforcement and ambulance services). The ability to receive shipments of fuel for vehicles and heating may be degraded if not cut off to some areas.
The effects of re-routing of traffic could seriously impact communities, especially those in the path of a closed road. Heavy volumes of traffic on routes that were not designed to handle it would cause damage, burdening the DOHFPD's finances, staffing and equipment. Transit would be affected by forced route changes or inability to travel, reducing the ability of citizens who depend on an affected route to procure goods or services.

4.1.2.2.2 Previous Occurrences & Probability of Future Occurrence of Transportation Incident/Accidents Hazard

Historical Occurrences.
The DOHFPD contains over 725 miles of roadway. The fire department has averaged 60-95 traffic accidents within its borders over the past five years. In 2006, fire department responded to 8 fatal accidents.

Likelihood of Future Occurrences.
As the population of the DOHFPD in particular and the county in general increases and the infrastructure available to handle the traffic is not improved, the number of traffic incidents will continue to increase.

4.1.2.3 Man-Made Hazardous Materials

DOHFPD has rated Man–-Made Hazardous Materials as a HIGH PRIORITY HAZARD.

On average Yuba County receives 26 reports of a hazardous substance release every year. In many cases, the person or company responsible for the release is the one who discovers and reports it. In other cases, a local public safety official who is trained in recognizing and responding to hazardous substance threats discovers the release. Occasionally hazardous substance releases are discovered by people as they go about their every-day activities.

Several ways exist to recognize the presence of a hazardous material or the warning signs of a hazardous material release. The shapes of containers are often a clue that they may be storing hazardous materials. The federal government has a system for labeling containers used to store or transport hazardous materials that uses colors and symbols to designate potential hazards (Table 4–5).

Table 4–5 Hazardous Materials Identifying Symbols

Hazard Class	Color	Symbol
Explosives	Orange	Starburst
Non-flammable Gases	Green	Cylinder
Flammable Gases or Liquids	Red	Flame
Flammable Solids	Red/White Stripes	Flame
Oxidizers	Yellow	Flaming Ball
Poisons	White	Skull & Crossbones
Radioactives	Yellow/White	Propeller
Corrosives	White/Black	Test Tube

The EPA maintains summaries of information on over 300 chemicals, including their identifying characteristics, health hazards, ecological effects, and methods to reduce exposure to the chemical at http://www.epa.gov/enviro/html/emci/chemref/index.html. Table 4–6 lists 12 of the more common hazardous materials, their common sources, and their health effects.

Table 4–6 Common Hazardous Materials

Common Sources	Contaminants	Potential Health Effects
Household Items, such as Batteries, Thermometers, and Paints	mercury	Toxic to kidneys. Can cause eye and skin irritation; chest pain; tremor; fatigue; weakness.
Car Radiators and De-icing Agents	ethylene glycol	Can cause abdominal pain; vomiting; weakness; dizziness; central nervous system depression.
Photocopy Machines	chromium	Toxic to kidneys; potential human carcinogen.
Dry Cleaning	trichloroethane and	Central nervous system depression:

Agents and Degreasers	trichloroethylene	decreased alertness, headaches, sleepiness, loss of consciousness. Kidney changes: decreased urine flow, swelling (especially around eyes), and anemia. Liver changes: fatigue, malaise, dark urine, liver enlargement.
Herbicides for Vegetation Control	chlorophenoxy compounds; 2;4- dichlorophenoxyacetic acid	Chloracne, weakness or numbness of arms and legs, long-term nerve damage.
	dioxin	Dioxin causes chloracne and may aggravate pre-existing liver and kidney disease.
Pesticides	chlorinated ethane's; DDT; lindane	Acute symptoms of apprehension, irritability, dizziness, disturbed equilibrium, tremor, and convulsions.
	Cyclodienes (aldrin; chlordane; dieldrin; endrin); chlorocyclohexanes	Acute symptoms of apprehension, irritability, dizziness, disturbed equilibrium, tremor, and convulsions. Liver toxicity and permanent kidney damage. Chlorocyclohexanes can cause anemia.
	Organophosphate: diazanon; dichlorovos; dimethoate; trichlorfon; malathion; methyl parathion; parathion carbamate: aldicarb; baygon; zectran	All cause a chain of internal reactions leading to neuromuscular blockage. Acute symptoms include headaches, fatigue, dizziness, increased salivation and crying, profuse sweating, nausea, vomiting, cramps, diarrhea, tightness in the chest, and muscle twitching
Electrical Transformers and Other Industrial Uses	polychlorinated biphenyls (PCBs)	Various skin ailments, including chloracne. May cause liver toxicity. Carcinogenic to animals.
Commercial Solvents	benzene; ethyl benzene; toluene; xylene	Benzene suppresses bone marrow function, causing blood changes; chronic exposure can cause leukemia. Central nervous system depression: decreased alertness, headaches,

		sleepiness, loss of consciousness. Defatting dermatitis.
	carbon tetrachloride; chloroform; ethyl bromide; ethyl chloride; ethylene dibromide; ethylene dichloride; methyl chloride; methyl chloroform; methylene chloride; tetrachloroethane; tetrachloroethylene; trichloroethylene; vinyl chloride	Central nervous system depression: decreased alertness, headaches, sleepiness, loss of consciousness. Kidney changes: decreased urine flow, swelling (especially around eyes), anemia. Liver changes: fatigue, malaise, dark urine, liver enlargement, jaundice.
Various Commercial and Industrial Manufacturing Processes	arsenic; beryllium; cadmium; chromium; lead; mercury	All are toxic to kidneys. Decreased mental ability, weakness, headache, abdominal cramps, diarrhea, and anemia. Also affects blood-forming mechanisms and the peripheral nervous system. Long-term exposure to lead can cause permanent kidney and brain damage. Cadmium can cause kidney and lung disease. Chromium, beryllium, arsenic, and cadmium have been implicated as human carcinogens.
	PCBs	Various skin ailments, including chloracne; may cause liver toxicity; carcinogenic to animals.
Chemical Manufacturing	benzene; ethyl benzene; toluene; xylene	Benzene suppresses bone marrow function, causing blood changes; chronic exposure can cause leukemia. Central nervous system depression: decreased alertness, headaches, sleepiness, loss of consciousness. Defatting dermatitis.
Steel and Glass Manufacturing	chromium; lead; mercury	All are toxic to kidneys. Lead causes decreased mental ability, weakness, headache, abdominal cramps, diarrhea, and anemia. Also affects blood-forming mechanisms and the peripheral nervous system. Long-term exposure to lead can cause

		permanent kidney and brain damage. Chromium has been implicated as a human carcinogen.
Chrome Plating Operations	chromium	Toxic to kidneys; potential human carcinogen.

Events involving hazardous materials usually are the result of leaks during production and manufacturing process, or during their transportation and storage. There is no major production or manufacturing facilities within the DOHFPD. Marysville Road provides the major transportation route through the DOHFPD; no state or federal highways are in the DOHFPD.

4.1.2.3.1 Location, Extent, Magnitude, and Severity of Man-Made Hazardous Materials Hazard

The following sites contain a high amount of hazardous materials.

- Hardware store: various flammable liquids and chemicals.
- Propane gas distributor: large propane storage area with trucks, tanks, and delivery system.
- Gas station: gasoline and diesel, propane storage.
- Wrecking yard: old cars and trucks with oil, gas, tires, etc.
- RV resorts: gasoline, diesel, and propane storage
- Power plant: oil filled transformers, gas and diesel tanks

The two major state highways near the DOHFPD, Highway 20 and Highway 49, provide access to Marysville Road, a major access corridor to the area which traverses the DOHFPD. Marysville Road receives heavy truck and trailer traffic and is the major artery for delivery of propane gas and other volatile materials to the area. The state highway transportation corridors provide timber-logging trucks access to the railways and logging mills, increasing the incidents for HAZMAT spills and transportation accidents.

The isolation afforded by the woods and forests of the foothills makes the area one of the prime locations in California for the production of methamphetamines and other designer drugs. The compounds used in their production are well known sources of hazardous contamination, and require specialized handling. Explosions and fires resulting from the mishandling of these volatile compounds are a relatively common occurrence in the DOHFPD.

4.1.2.3.2 Previous Occurrences & Probability of Future Occurrence of Man-Made Hazardous Materials Hazard

Historical Occurrences.

Although property within the DOHFPD has sustained damages attributable to hazardous materials, no structures or equipment owned by the DOHFPD have been damaged due to hazardous materials. The DOHFPD responded to 29 hazardous materials calls during 2004.

Man-made hazardous materials events impact DOHFPD through the release of a toxic gas plume (chlorine, ammonia, or propane gases), a substance release that contaminates the groundwater or soil (diesel or gasoline) which can cause chronic or long-term effects. Another source that impacts DOHFPD is clandestine illegal substance labs. Clandestine labs can produce methamphetamine in as few as six to eight hours (Swetlow, 2003) and generate between five and seven pounds of toxic waste for every pound of methamphetamine.(Butterfield, 2004; NCDOJ, 2004).

Typical toxic chemicals found in clandestine meth labs in the DOHFPD include acetone, methanol, ammonia, benzene, ether, freon, hydriodic acid, hydrochloric acid, iodine crystals, lithium, muriatic acid, phosophine gas, pseudosphedrine, red phosphorus, sodium hydroxide, sulfuric acid, and toluene. Toxic substances seep into the pores of structures contaminated in the production of clandestine meth manufacture where they are touched or inhaled by unsuspecting occupants for years after the labs are gone. Contaminates must be professionally removed from the structure to ensure that chemical dangers are eliminated.

Table 4–7 lists the contamination incidents from confirmed meth drug labs in the DOHFPD.

Table 4–7 DOHFPD Hazardous Materials Incidents

Incident Date	Incident Substance
1995	Drug Lab
1995	Drug Lab
1996	Drug Lab
1999	Drug Lab
2004	Drug Lab
2005	Drug Lab

Likelihood of Future Occurrences.

The Dobbins-Oregon House area has several hazardous materials sites. The rural nature of the District and remote area, provides opportunities for where hazardous materials such as propane are used commonly ensure that the likelihood of future occurrence of this hazard is high.

4.1.2.4 Severe Weather/Winds

DOHFPD has rated Severe Weather/Winds as a HIGH PRIORITY HAZARD.

4.1.2.4.1 Location, Extent, Magnitude, and Severity of Severe Weather/Winds Hazard

The geography of the DOHFPD is hilly and heavily-forested. Elevations range between 1,200 feet and 2,500 feet. The DOHFPD is usually below the winter snow and above the valley fog. While the snow line is generally 2,000' to 5,000', moderate amounts of snow are reported nearly every winter at elevations as low as 2,000' (www.wrcc.dri.edu 2005). The Dobbins 1 S weather station reported an average of 3.4 inches of snow for the period 1970 through 2005 (www.wrcc.dri.edu 2005). Because of the probability of moderate amounts of snow in the DOHFPD the County of Yuba Community Development, Building Division lists a 20 lbs per square inch snow load for buildings at 1,468' and a 30 lbs per square inch snow load for buildings at 2,557'. The lower elevations in the DOHFPD are primarily forested with oak trees, some ponderosa and digger pines, and manzanita. The higher DOHFPD elevations are primarily forested with ponderosa pines, cedar trees, madrones, manzanita and a wide variety of oak trees. Historically, winter storms or windstorms have resulted in damage to trees within the DOHFPD.

One of the causes for these strong winter storms is a climatic condition known as the Pineapple Express. This anomaly in winter precipitation occurs at irregular intervals and results from a combination of three climatic conditions: 1) an abundance of tropical moisture in the equatorial Pacific Ocean, 2) a southward-dipping jet stream below a high pressure ridge in the Gulf of Alaska and 3) neutral to weak El Niño conditions in the Pacific Ocean (NOAA 2005).. The warm, tropical moisture associated with the Pineapple Express can exacerbate the threat of flooding by melting the winter snow pack.

4.1.2.4.2 Previous Occurrences & Probability of Future Occurrence of Severe Weather/Winds Hazard

Historical Occurrences.

In 1995 the entire State experienced unusual storms. Within DOHFPD, heavy snows caused broken tree limbs, fallen telephone lines, and a heavy accumulation of debris. The storm was considered severe enough to be declared federal disasters (FEMA-1044-CA-DR and FEMA-1046-CA-DR); all 58 counties had been declared. The large amount of downed, suspended, and standing vegetation created a fuel hazard and left the area subject to an extreme fire threat (CDF, 2004).

A Pineapple Express was responsible for very heavy rainfall in 1986 and 1997 when breached levees resulted in disastrous flooding in the valley towns of Linda, Olivehurst, and Arboga (McCarthy 1997). During the 1997 Pineapple Express, almost 40 inches of rain fell in the Feather River basin in eight days (McCarthy 1997). Warm rainstorms melted almost the entire Sierra Nevada snow pack, resulting in major flooding and the aforementioned levee breaks along the valley's levee system (FEMA-1155-CA-DR). Little damage occurred in the DOHFPD from these storms as the snowmelt was channeled through the steep canyons and ravines.

Likelihood of Future Occurrences.
Severe storms, such as ice, heavy wet snow, and excess rain are not a frequent occurrence in DOHFPD. The rare 1998 El Nino event (FEMA-1203-CA-DR) resulted in localized flooding in creeks and canyons because of denuded forest land that resulted from the 1997 Williams Fire.

4.1.2.5 Earthquake

DOHFPD has rated earthquake as a MODERATE PRIORITY HAZARD.

Earthquakes are a particularly destructive natural hazard. During the last 50 years there have been 456 recorded deaths resulting from earthquakes in the United States (http://neic.usgs.gov/neis/eqlists/us_deaths.html accessed 8/29/2005 abridged from Seismicity of the United States, 1568-1989 (Revised), by Carl W. Stover and Jerry L. Coffman, U.S. Geological Survey Professional Paper 1527, United States Government Printing Office, Washington: 1993). According to FEMA's 2001 HAZUS99 assessment of earthquake damage, there is estimated to be annualized losses of 3.26 billion dollars to the general building stock in California alone (FEMA 2001). Additionally, this figure does not include critical facilities and other infrastructure (FEMA 2001).

Earthquakes are primarily characterized by their impact through *magnitude* and *intensity*. Table 4-8 depicts a comparison between the Richter scale magnitudes of an earthquake, as typically reported in the media, to intensity represented in the Modified Mercalli scale. The Richter magnitude of an earthquake is a function of the energy released by an earthquake represented as a logarithmic, decimal scale. Intensity is the measurement of the shaking intensity at a particular location and its effect on people, structures, and the environment (http://neic.usgs.gov/neis/general/mag_vs_int.html, accessed 8/29/2005).

Table 4–8 Conversion of Modified Mercalli Intensity to Peak Ground Acceleration

Conversion of Modified Mercalli Intensity to Peak Ground Acceleration

Modified Mercalli Intensity	VI	VII	VIII	IX	X	XI	XII
Peak Ground Acceleration	0.12	0.21	0.36	0.53	0.71	0.86	1.15

Source: (FEMA 2005) (HAZUS99 Technical Manual, www.fema.gov/hazus/pdf/dl_sr2t10.pdf, accessed 8/29/2005).

4.1.2.5.1 Location, Extent, Magnitude, and Severity of Earthquake Hazard

According to the U.S. Geological Survey, factors that affect the potential damage to structures and systems as a result of severe ground shaking include epicenter location and depth, the proximity to fault, the direction of rupture, magnitude, existing soil and geologic conditions, and structure-type. Newer structures are more resistant to ground shaking than older structures because of improved building codes.

Twenty-two percent of the DOHFPD housing is manufactured housing which is susceptible to damage due to the nature of their foundation systems. The California Code of Regulations Title 25, Division1, Chapter 2, Article 7, Section 1320, requires tie down installations to MH–units in all parts of the state within and outside of parks unless the unit is on a permanent foundation system. Existing construction, connections, and installations of MH units made before the effective date of the requirements may continue in use so long as they were in compliance with requirements in effect at the date of their installation and are not found to be substandard. (*source: California Code of Regulations, 2005)*

The *Rescue Lineament – Bear Mountains* fault zone lies less than 5 miles west of the DOHFPD boundary. The DOHFPD has not sustained damages attributed to earthquakes, dam failures, or landslides due to seismic activity as far as records have been maintained. Yuba County has not

proclaimed a local state of emergency due to earthquakes events, including the 6.1 earthquake which occurred near Oroville in 1975.

A 2.1 magnitude earthquake, occurring on April 19, 2005, caused no damage within the DOHFPD.

According to USGS, Seismic Safety Commission, CA GS, the DOHFPD is subject to the least ground shaking and lies with the 0% to 10% gravity zone (Figure 4–7).

YCWA conducted a detailed review of potential seismic sources in relation to New Bullard's Bar Dam in 2004. Geomatrix, an earth sciences consulting firm, was contracted to perform the study. The study involved research of faults and lineaments in the region to check for displacement along the features, review of potential seismic sources, controlling faults and maximum credible earthquake (MCE), and an estimation of the range of ground motions. Of the identified or inferred lineaments or faults in the region identified by DWR's Division of Safety of Dams (DSOD), most are believed to be inactive according to DSOD criteria for faults (Geomatrix 2004). For active faults in the vicinity of the dam, peak bedrock accelerations range from 6.5 to 6.75 in maximum magnitude at distances of 21 to 26 kilometers (km) from the dam. As a result, the study recommended that the 84th percentile response spectrum for a minimum earthquake, 0.2g peak horizontal acceleration (0.2 times the acceleration of gravity) be used for analysis of New Bullard's Bar Dam (Geomatrix 2004).

The New Bullard's Bar Dam is inspected visually three times per week for any changed conditions such as increased leakage, cracking, or settlement. Downstream flows are continuously monitored by the YCWA Colgate Power Plant and the PG&E Wise Power Plant. There is no change in surveillance with the seasons. In addition, two seismic sensors are located at each end of the new Bullard's Bar Dam. An earthquake that registers 5.5 within 50 miles of the dam triggers the YCWA to inspect the dam.

4.1.2.5.2 Previous Occurrences & Probability of Future Occurrence of Earthquake Hazard

Historical Occurrences. In Yuba County, damaging earthquakes are rare. Figure 4–7 depicts the location of faults and historic earthquake epicenters since 1800 in and around Yuba County. Earthquakes do occur in Yuba County. As recently as April 21, 2005, a 2.1 Richter magnitude earthquake occurred in the Oregon House area (Figure 4–6). More significant earthquakes have occurred outside of the county. The most recent earthquakes felt in the county occurred in the mid 1970's south of the city of Oroville in Butte County, the strongest of which was classified as a strong earthquake with a magnitude of 6.1 (Figure 4–6).

Figure 4–6 Yuba County Earthquake History

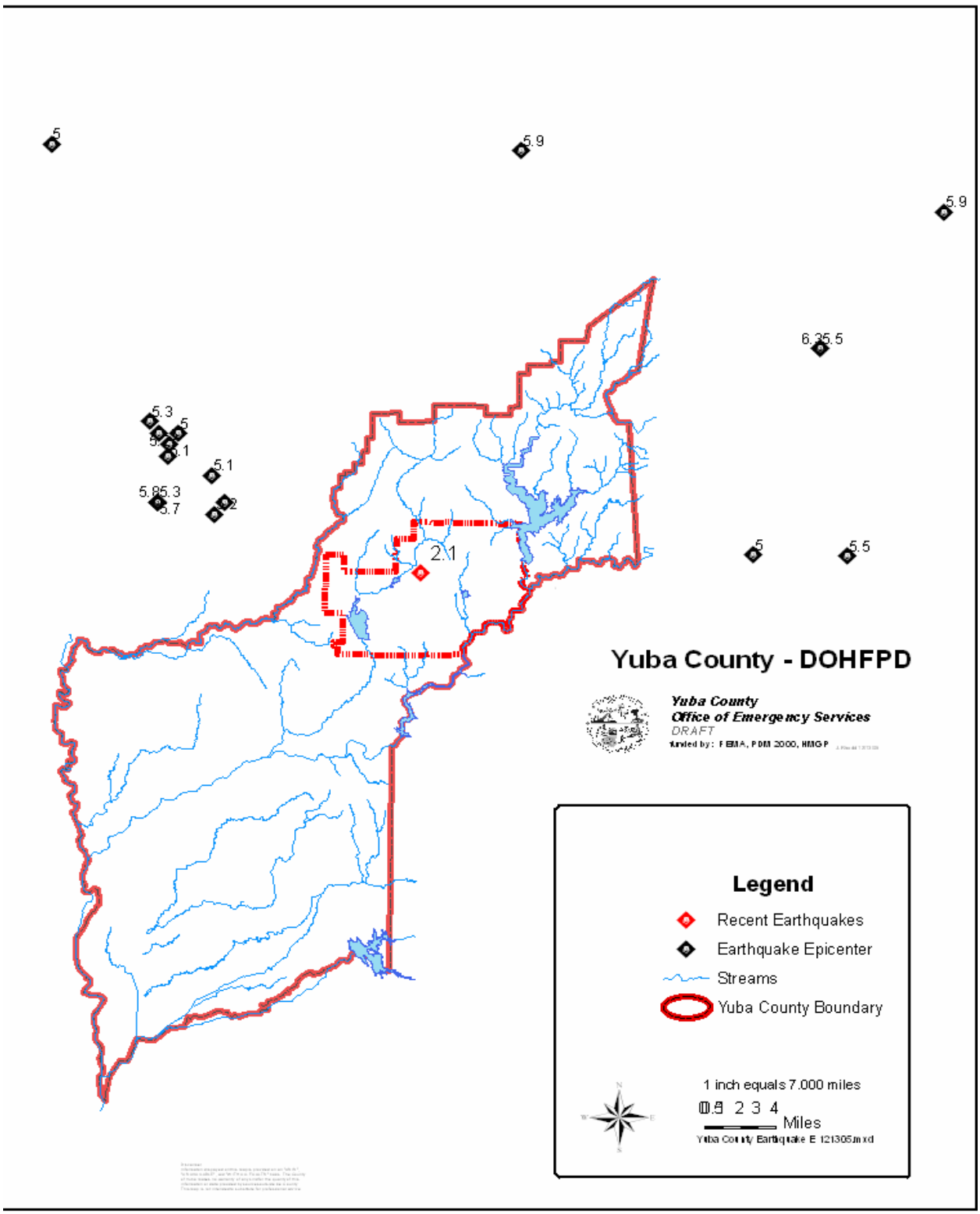


Figure 4–7 depicts the estimated peak ground acceleration (PGA) for a portion of Northern California. As can be seen from this figure, the areas of greatest PGA surround the Central Valley of California, resulting from the occurrence of activity on faults on the east side of the Sierra Nevada, near the active volcanoes in the Cascade Range, and in the Coast Range near the San Andreas Fault. Figure 4–8 depicts the PGA for Yuba County. This number is a representation of the potential maximum ground acceleration that could be expected during an earthquake as a percentage of the force of gravity. A relationship can be established between the intensity of an earthquake and the corresponding PGA, shown in Table 4–8. As can be seen, during the most intense earthquakes (intensity XII), when objects are thrown into the air, gravity is being exceeded, therefore a number greater than 1.0 is shown for PGA (1.0 equals the force of gravity).

Figure 4–7 Northern California Peak Acceleration w/ 10% PE in 50 yrs

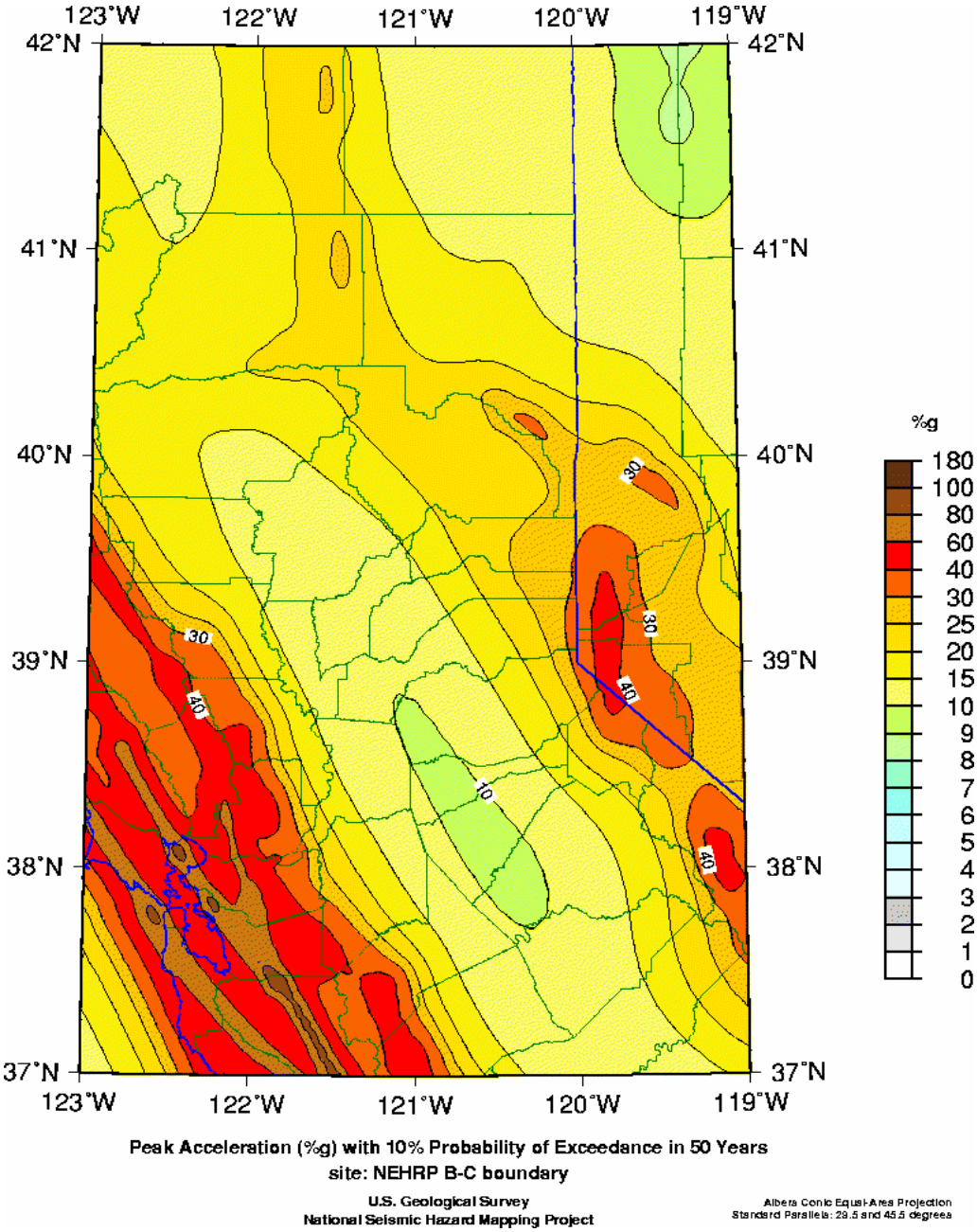
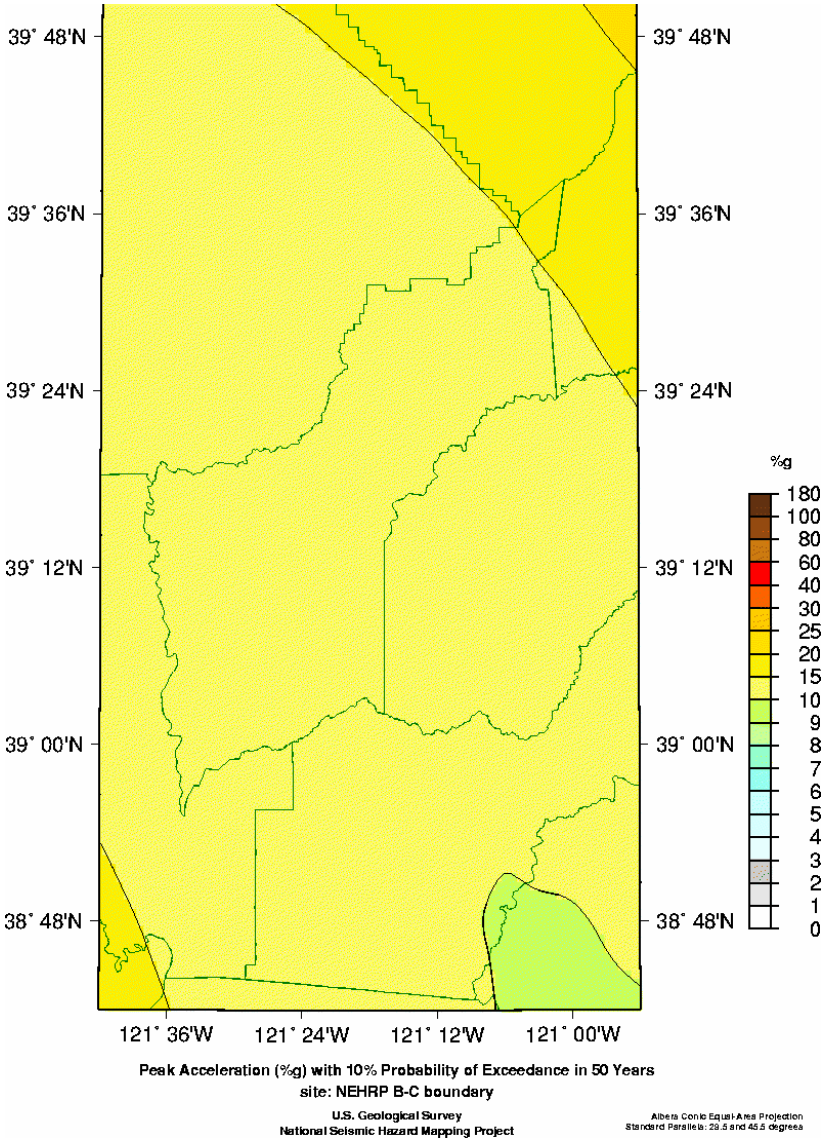
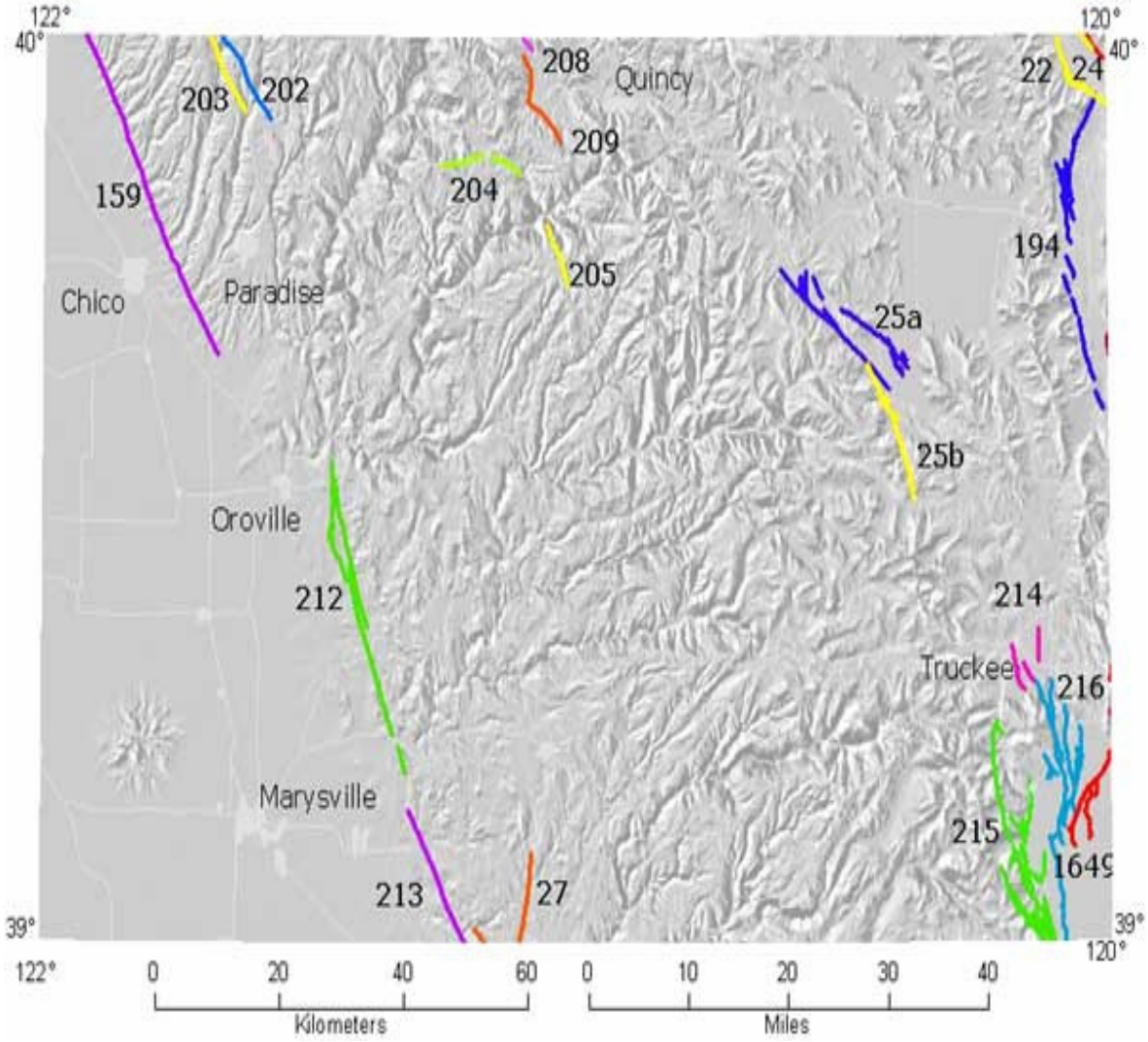


Figure 4–8 Peak Acceleration w/ 10% PE in 50 yrs



Several faults are found in the county, also shown on Figure 4–9. These include the Swain Ravine fault zone, Bear Mountain fault zone, and Spenceville fault (http://earthquake.usgs.gov/qfaults/ca/chi.html, accessed 8/29/2005). According to the California Geological Survey, these faults have not had activity since the Quaternary epoch, greater than 10,000 years ago. These faults are likely the remnants of a suture zone several million years old where portions of the oceanic crust were scraped off of the Pacific Plate during subduction under the North American Plate. Therefore, these faults are the likely remains of previous tectonic activity, and current tectonic activity regarding these plates has transferred to the Gulf of California spreading rift and corresponding translational movement of the San Andreas Fault.

Figure 4–9 Yuba County Regional Fault Zones

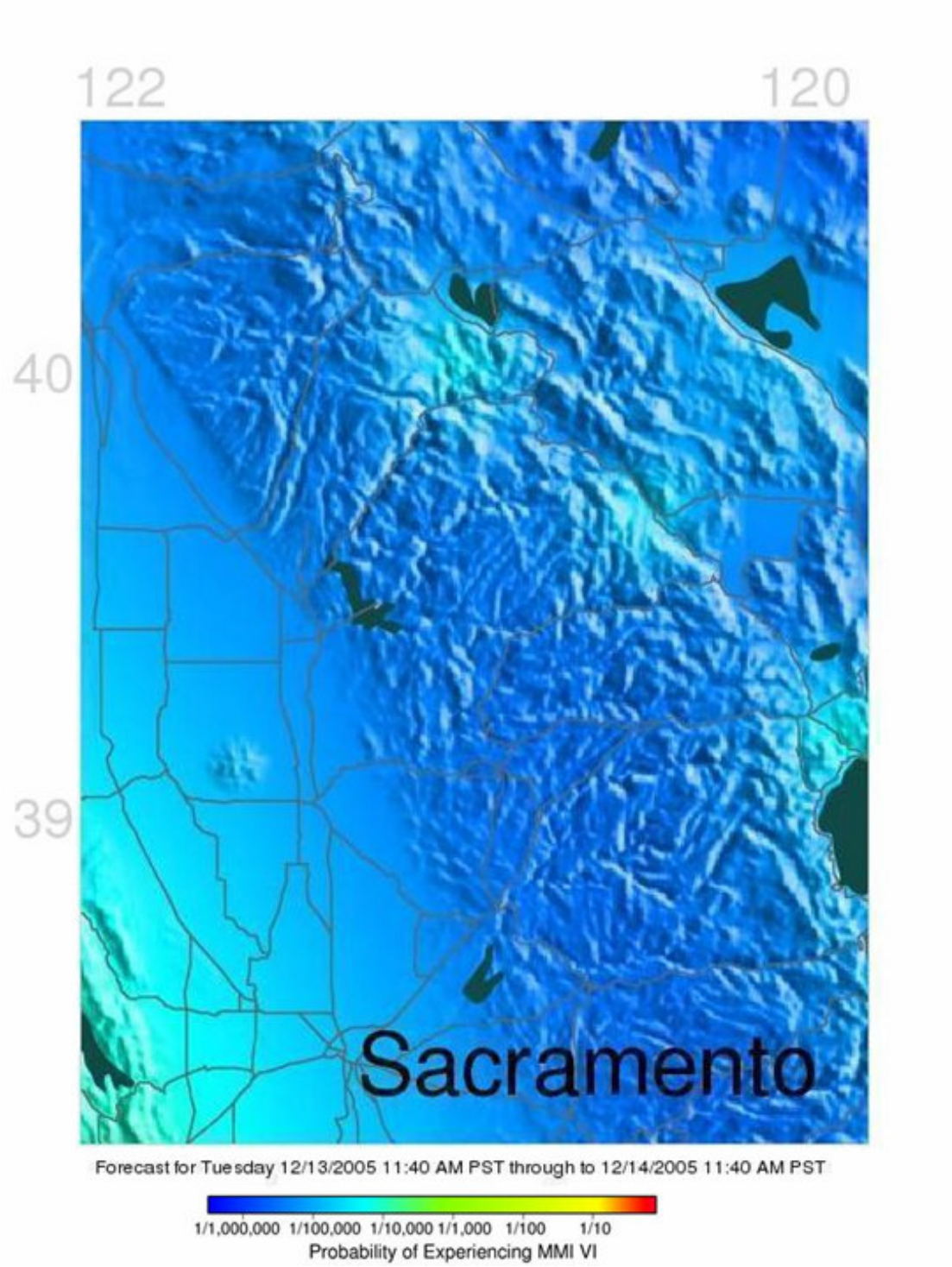


Number	Name
22	Honey Lake fault zone
24	Fort Sage fault
25a	Mohawk Valley fault zone, Mohawk Valley section
25b	Mohawk Valley fault zone, Sierra Valley section
27	Bear Mountain fault zone
159	Chico Monocline
194	Last Chance fault zone

202	Beaver Creek fault
203	Cohasset Ridge fault
204	Haskins Valley fault
205	Unnamed faults west of Hat Creek
208	Crablouse Ravine fault
209	Bottle Springs fault
212	Swain Ravine fault zone
213	Spenceville fault
214	Unnamed faults south and east of Truckee
215	Tahoe-Sierra frontal fault zone
216	West Tahoe-Dollar Point fault zone
1649	North Tahoe fault (Nevada)

In addition to the direct physical damage that can result from the motion of the earthquake, damage can result from liquefaction or even earthquake-induced fire. Liquefaction occurs where water-logged soils near the ground surface lose compaction during strong ground motion. This can cause building foundations to shift and result in significant structural damage (http://earthquake.usgs.gov/faq/effects.html, accessed 8/29/2005). These types of soils are typically found in areas of low-lying, current or former floodplains. A prime example of the damage that can result from liquefaction was seen during the 1989 Loma Prieta earthquake near Santa Cruz, California. In the Marina District of San Francisco, an area filled-in with sediments derived from the San Francisco Bay, some of the worst building damage was found on these sediments. Generally, the younger and looser the sediment and the higher the water table, the more susceptible a soil is to liquefaction.

Figure 4–10 December 13, 2005 24 Hour Aftershock Forecast



Likelihood of Future Occurrences. The threat of earthquakes exists in Yuba County, but compared to the rest of the state, the probability of strong earthquakes in the county is much less than areas near the San Andreas Fault and the eastern Sierra Nevada. This is graphically depicted in Figure 4–10. There are also no mapped earthquake fault hazard zones in the county as reported in the publication Earthquake Fault Hazard Zones in California (CDMG 1997). The USGS maintains several hazard-related services affiliated with the National Earthquake Information Center (NEIC, http://neic.usgs.gov). Some of this information includes the real-time earthquake forecast for the next 24 hours for California (http://pasadena.wr.usgs.gov/step/). Figure 4–11 shows the forecast centered on Marysville for the 24-hour period ending December 13, 2005. Over the next 50 years, however, there is a 10 percent probability of exceedance (PE) of 0.1 g in Yuba County, except for a small portion of the northernmost corner of the county east of Strawberry Valley, which has a 10 percent PE of 0.15 g in the next 50 years (Figure 4–8). These accelerations are roughly equivalent to a magnitude 5.8 and 6.3 earthquake, respectively (see Table 4–8).

4.1.2.6 Dam Failure

DOHFPD has rated dam failure as a MODERATE PRIORITY HAZARD.
Dam failures can result from a number of natural or manmade causes such as, erosion of the face or foundation, improper citing, rapidly rising flood waters, aging structure or design flaws and earthquakes. Seismic activity may also cause inundation by the action of a seismically induced wave which overtops the dam without also causing dam failure. This action is referred to as a seiche. Landslides flowing into a reservoir are also a source of potential dam failure or overtopping.

4.1.2.6.1 Location, Extent, Magnitude, and Severity of Dam Failure Hazards

There are three major dams which could have significant impact on **DOHFPD in the event of a dam failure, they are: New Bullard's Bar, Virginia Ranch Dam (Collins Lake),.and Lake Francis Dam** Failure of these dams during a catastrophic event, such as a severe earthquake, is considered a very unlikely event. Due to the method of construction they have performed well and failure is not expected to occur.

The Federal Energy Regulatory Commission (FERC), as required by Federal Law, has reviewed and approved comprehensive **Emergency Action Plans (EAP)** for each of these dams. The EAP is intended to minimize the threat to public safety and to minimize the response time to an impending or actual sudden release of water from project dams. The EPA Plan is also be used to provide emergency notification when flood water releases may present a potential for major flooding. Copies of Dam EPA for the following facilities are located in the **County of Yuba Emergency Operations Center (EOC)** and at the DWR in Sacramento.

New Bullard's Bar Dam
YCWA New Bullard's Bar Dam FERC 2246
DWR # BUL

Description and Location: The New Bullard's Bar Dam is located on the North Fork of the Yuba River, about 28 miles northeast of Marysville. The New Bullards Bar Dam is located in Yuba, Nevada and Sierra Counties, and consists of New Bullards Bar Dam, Our House Dam and Log Cabin Dam. The dam is located 30 miles northeast of the City of Marysville and 1.5 miles downstream form the original Bullards Bar Dam. Tunnels supply water from the latter two dams to Bullards Bar Dam for power generation. The dam is owned and operated by the Yuba County Water Agency. New Bullards Bar Reservoir has a normal gross storage capacity of 966,103 acre-feet at reservoir elevation of 1,956.

This multipurpose project consists of a 645 foot high concrete arch dam with a crest length of over 2,300 feet, a reservoir with a gross capacity of 960,000 acre-feet and new power plants at the Colgate and Narrows sites.

Areas of Inundation: Should a breach in the dam occur, the water released would flow in a southwesterly direction toward the City of Marysville. Marysville lies within the dam's flood plain/inundation path, in the event of a dam failure, the flood wave would reach Marysville approximately one hour later. The flood wave would continue to move through Linda and Olivehurst, inundating the western section of the community. It should be noted that Marysville, Linda and Olivehurst would be totally inundated within 3 hours. The inundated area affected by a breach of the New Bullards Bar Dam is comprised of commercial, industrial, residential property, agricultural lands, schools, and a hospital.

If the New Bullards Bar Reservoir on the North Yuba River together with Lake Oroville Reservoir on the Feather River had been in operation during the 1955-1956 floods, they would have prevented the loss of 40 lives and $50.5 million in damages that occurred on the Feather River. (*source: Emergency Action Plan, Yuba River Development Project, FERC Project No. 2246, 2004*)

Virginia Ranch Dam FERC Project No. 3075 / NAT Dam No. CA00842

Description and Location: Virginia Ranch Dam and Collins Reservoir are located in a widening area of the Dry Creek Channel approximately 12 miles northeast of the Dry Creek/Yuba River confluence in the Sierra Foothills and are approximately 18 miles northeast of Marysville in Yuba County. Dry Creek is a tributary to the Yuba River, which is in turn a tributary to the Feather River. Virginia Ranch Dam was completed in 1963 as the main feature of an irrigation system to supply water to Browns Valley. A hydroelectric power plant was added in 1983-84.
The Dam is a 142-foot high rolled earth fill embankment with a central, compacted earth core and rock outer shell. At the crest, the dam embankment is 2,800 feet long with 800 feet spanning the Dry Creek Channel and 2,000 feet constructed along a ridge to the east abutment.
The spillway located on the right abutment, is a 300-foot-long side channel ogee-shaped weir that discharges into a 42-foot wide concrete chute that terminates in a flip bucket at streambed elevation.

Areas of Inundation: Should a breach in the dam occur, the water would flow south along Dry Creek inundating most of Browns Valley. A small portion of land in Yuba County would be affected. The community of Browns Valley lies within the dam's inundation path. In the event of a dam failure, the flood wave would reach Browns Valley in approximately 15 minutes, and would reach the City of Marysville 2 hours later.

4.1.2.6.2 Previous Occurrences & Probability of Future Occurrence of Dam Failure Hazard

Historical Occurrences.
The Lake Francis Dam reportedly failed in 1902 due to hasty construction practices and was rebuilt in 1905. (*source: Yuba County General Plan, Volume 1, Environmental Setting and Background, 1994*)

In 1907, a 14 foot high concrete barrier erected on the Yuba River above Marysville to trap sediment failed in a major flood and was never rebuilt (Gilbert, 1917).

Several smaller mining and agricultural dams exist in Yuba County. Some of these small earth fill dams have failed over the years, according to the YCWA. (*source: Yuba County General Plan, Volume 1, Environmental Setting and Background, 1994*)

Likelihood of Future Occurrences.

The following dams are located within the DOHFPD boundaries:

- New Bullard's Bar Dam, (latitude 39.39222, longitude –121.14) at the New Bullards Bar Reservoir
- Lake Francis Dam, (latitude 39.36, longitude –121.20278) at Lake Francis
- Los Verjeles Dam, latitude 39.36833, longitude –121.28278) at Lake of the Springs
- Virginia Ranch Dam, (latitude 39.32306, longitude –121.30861) at Collins Lake

Inundation maps detailing dam failure as well as the associated studies show that there are no effected populations within the dam failure areas.

4.1.2.7 Flooding

DOHFPD has rated flooding as a MODERATE PRIORITY HAZARD.

Flooding results in more deaths nationwide annually than any other natural hazard (NOAA, 1992). As a result, the causes of flooding and the mitigation of its effects have been the topics of much storm water research. In disaster mitigation, there are many ways to lessen the effects of flooding. This section reviews the fluvial environment of Yuba County, its history of significant flooding, and the potential for future flooding.

Flooding occurs when an existing stream channel can no longer contain the water flow within its natural banks. For coastal areas, flooding occurs when tides or ocean swells (storm surge) inundate shoreline areas not normally affected by tidal waters. For stream channels, the excess flow floods adjacent, normally dry, land called a floodplain. The stream channel can be any form of watercourse: stream, river, creek, canal, etc.

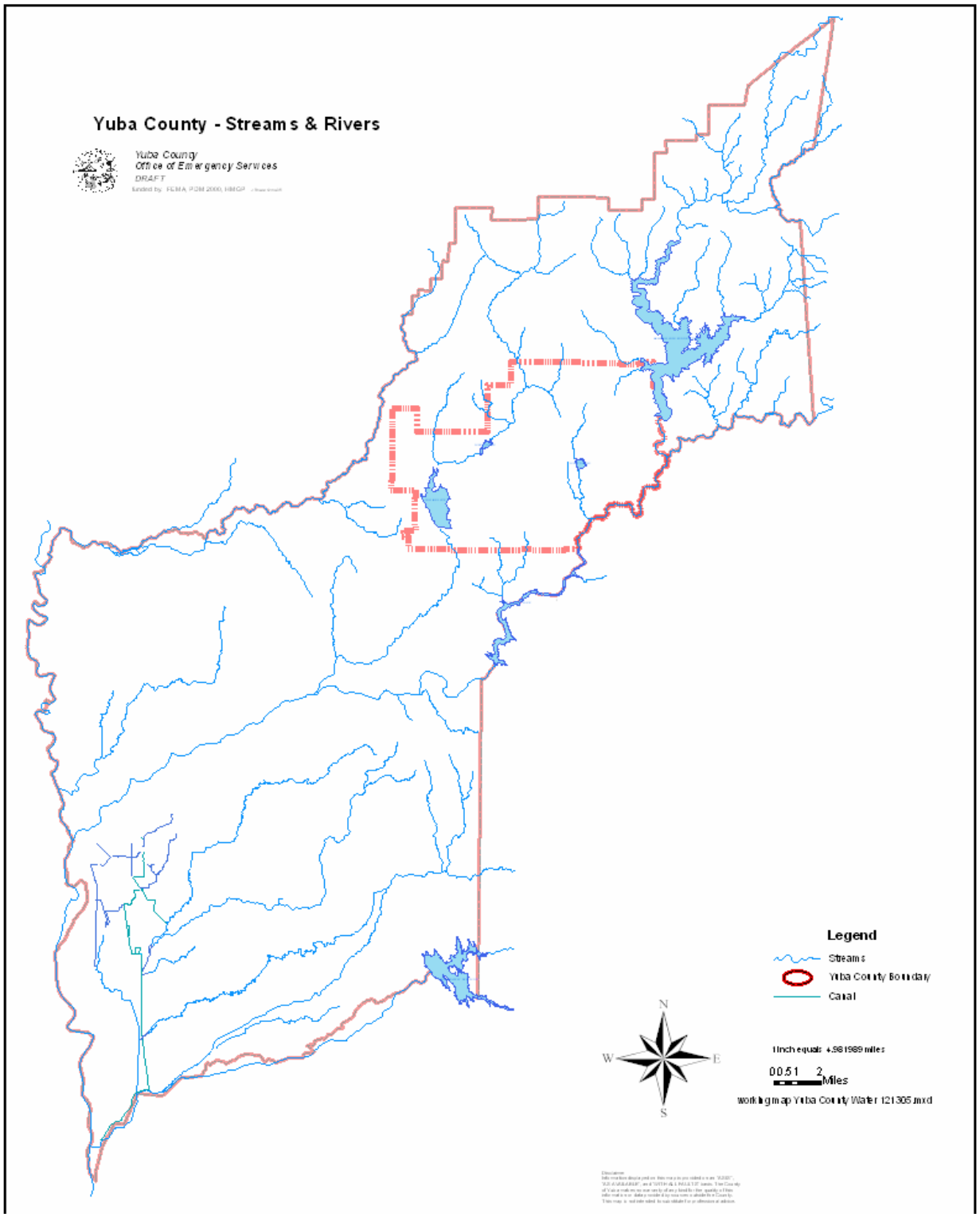
Flooding occurs in many forms: *riverine*, *urban, flash* and *coastal* flooding. The best known causes of flooding result from excess rainfall or snowmelt, especially for riverine or flash flooding, but other causes include storm surge or strong winds and high tide for coastal flooding, dam or levee failure, or for urban flooding a major contributing factor is storm drainage system overload.

Riverine flooding occurs when water from watercourses overtops the natural banks of the watercourse to flow over the adjacent lands. Oftentimes, these lands outside of the stream banks are the locations of much urban development. Flooding also occurs from the accumulation of storm water in low-lying areas with poor drainage, either by the lack of infiltration or from an insufficient overland drainage network. This is often called *urban flooding* and results from a clogged or insufficient storm water drainage system where infiltration is insufficient or in flat, low-lying areas with insufficient drainage networks. *Flash flooding* occurs when streams exhibit a dramatic rise in water level in a short amount of time, typically less than six hours from rise to peak to recession along the length of the watershed. Flooding can also result from dam or levee failures.

4.1.2.7.1 Location, Extent, Magnitude, and Severity of Flooding Hazard

The Sacramento Valley has a long history of flooding from the rivers that drain into it. Early explorers noted that the entire lower Sacramento Valley south of the Sutter Buttes would be covered by water during the winter months (McCarthy 1997). The principal river of the Sacramento Valley, the Sacramento River, drains a watershed of 27,841 square miles and collects water from tributary rivers draining the Coast Range, Cascade Range and the Sierra Nevada.

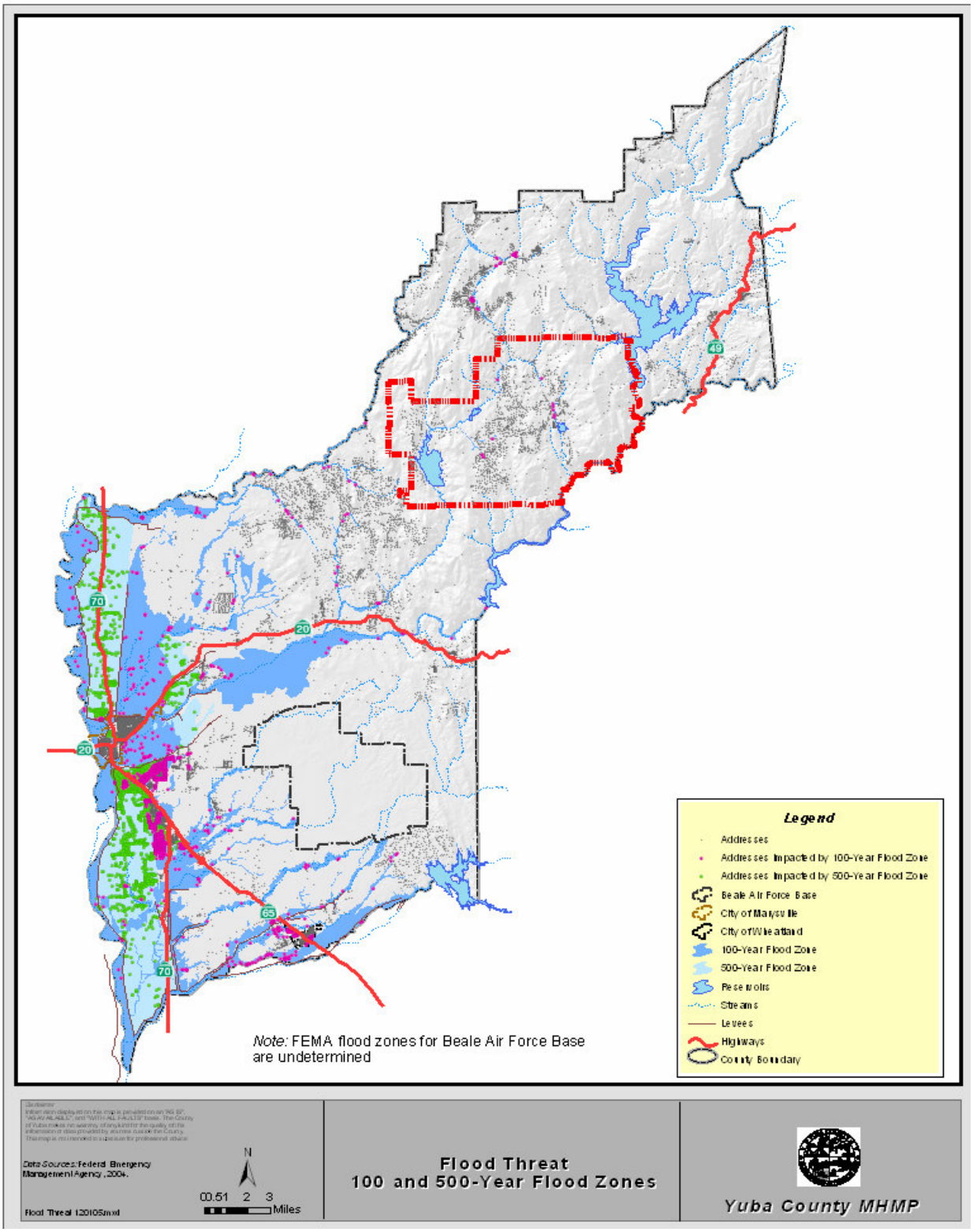
Figure 4–11 Yuba County Streams & Rivers



Yuba County exhibits a wide range of geographic features, a result from its occurrence in two major geomorphic provinces: the Great Valley and Sierra Nevada (Figure 4-11). Three significant rivers border or run adjacent to the county: the Feather River, the Yuba River and the Bear River (Figure 4-12).

The Feather River originates in the Sierra Nevada at elevations near 8,000 feet above sea level. The Feather River drains an area of 6,227 square miles (including the Yuba and Bear River watersheds). It forms a natural division between the Sierra Nevada and Cascade Range geomorphic provinces. It is approximately 130 miles long from its headwaters to its confluence with the Sacramento River just north of the city of Sacramento (County of Yuba 2004). The Feather River and its canyon provide the lowest elevation pass through the Sierra Nevada, allowing rail and automobile traffic State Highway 70 follows and divides the Sierra Nevada and Cascade Mountain Ranges (County of Yuba 2004).

Figure 4–12 Flood Threat Inundation



The Yuba River rises in the Sierra Nevada at over 8,000 feet above sea level, threading its way down hundreds of miles of canyons to join the Feather River at Marysville at an elevation of only sixty-seven feet above sea level. It drains a 1,336-square-mile watershed only thirty-five miles across at its widest point (County of Yuba 2004).

The Bear River flows westerly from the Sierra Nevada to its confluence with the Feather River, forming the southern boundary of Yuba County (County of Yuba 2004). The Bear River drains a watershed of 469 square miles.

Flooding Causes
There are many types of flooding that can occur; localized flooding, flash flooding, and flooding caused by dam failure, levee seepage, and levee failure or overtopping of the levee. Flooding typically results from heavy rainfall. Though Yuba County exhibits a Mediterranean climate, with dry, hot summers, heavy precipitation can occur during the wet, cool winters. Based on its diverse topography, Yuba County experiences a diverse climate. The topography of the county ranges from the low-lying Sacramento Valley just a few feet above sea level to mountainous woodlands and forests in the Sierra Nevada at elevations approaching 5,000 feet above sea level. The mountainous portions of the county experience much cooler temperatures year-round with abundant snow in the winter. Average annual precipitation ranges from 30 inches in the valley to over 60 inches in the mountains (www.wrcc.dri.edu 2005).

Flooding occurs when a stream exhibits a flow of water that is in excess of what can be contained by the natural stream channel. This excess flow often flows onto floodplains, the land directly adjacent to a stream course that, during times of high flow, are often inundated as the stream rises above its natural channel. Floodplains can change over time. Most often this results from the natural processes of river systems as a stream works to achieve equilibrium. The floodplain and watercourse of a stream can also be affected by anthropomorphic influences such as the development of land into residential or commercial structures and the resulting reduction of pervious land, resulting in increased stream flow, the construction of bridges or culverts, or the creation of levee or other impoundment structures which control the flow in the watercourse.

Other causes of flooding include dam or levee breaks and storm drain overloading in developed areas. Many low-lying areas are now protected from flooding river flows by levees. Levee failure is a destructive form of flooding that occurs when the structural integrity of the levee is compromised in some way. Much of the lower elevations in Yuba County are protected by levees which protect property adjacent to the Feather, Yuba, and Bear Rivers.

Many of the heaviest winter precipitation seasons are associated with El Niño conditions in the Pacific Ocean and storm tracks that deliver strong winter storms repeatedly across northern California. When these storms occur in late spring and hasten snowmelt in the Sierra Nevada, flows in the areas creeks and rivers can rise dramatically. This high intensity rainfall can cause flash flooding which the National Weather Service (NWS) defines as “a flood caused by heavy or excessive rainfall in a short period of time, generally less than 6 hours.” (*source: http://www.wb-infokiosk.org/bp.php?url=http://www.nws.noaa.gov/glossary/index.php%3Fletter%3Df*) Flash flooding is exacerbated by several factors besides intense rainfall:

- steep topography of the contributing watershed,
- lack of infiltration into the soil (by either soil type,
- antecedent soil moisture),
- land cover, and
- shape of the watershed (elongation ratio).

4.1.2.7.2 Previous Occurrences & Probability of Future Occurrence of Flooding Hazard

Historical Occurrences.

The legendary floods of 1862 and 1876 emphasized the need to develop systems to protect lives and property. By 1875, Marysville began to surround itself with levees. By the 1950's, the levees surrounding Marysville were among the strongest in the state. Bullards Bar Dam was built from 1922-1924, and the Narrows and Englebright Reservoir was built prior to 1945 (County of Yuba 2004). New Bullards Bar Dam was built in the 70's to replace Bullards Bar Dam and provide additional flood control to the Yuba River.

There have been ten major floods on the Yuba and Feather Rivers during the 20th century, five occurred in Yuba County (Table 4–13). In 1950 the Yuba River broke through its banks at Hammonton and flooded southern Yuba County. Tropical storms hit in 1955 causing widespread flooding with water reaching the tops of the levees in Marysville, causing the deaths of forty people, and forcing the evacuation of over 30,000 people.

Figure 4–13 History of Yuba County Flood Disasters

History of Flood Disasters in Yuba County	
Year	**Flooded Area**
1805	
1825-1826	
1852-1853	Four flood events
1861-1862	
1866-1867	
1875-1876	
1950	Yuba River from Hammonton south
1955	Jack Slough flooding
1986	Linda levee break
1995	Low-lying areas in RD 784
1997	RD 784 levee break

source:

The 1986 Linda flood resulted from a levee failure on the Yuba River just east of the E Street bridge (State Highway 70), resulting in the death of one person and over 95 million dollars in property damage. The communities of Linda and Olivehurst were hardest hit by the flooding, with some of these areas just now beginning to recover economically. The Peach Tree Mall, a large retail center in Linda along State Highway 70 and North Beale Road, has never recovered and is largely unused except for a few County departments (County of Yuba 2004). In 1997 a levee failed along the Feather River. Both levee breaks were in the valley portion of the county, and were not within DOHFPD boundaries. Although DOHFPD was not impacted directly by the flood waters the District was impacted due to the temporary relocation of valley floor residents into the District's emergency shelters.

While there have been no dam failures in Yuba County urban flooding from storm drain overloading is typically of local concern and usually causes roads to be impassable until the water recedes. Figure 4-14 illustrates the 6 hour precipitation for a two year return period. (*source: NOAA Atlas 2, Vol. XI, http://wrcc.dri.edu/pcpnfreq/nca2y6.gif, 2005*) The highest intensity rainfall occurs in the northern reaches of the County (Figure 4-14). A region of high intensity rainfall (30 inches in a six hour period) for the DOHFPD is located in the southeastern portion of the District.

Figure 4–14 Short Duration Rainfall for Yuba County (2yr 6hr)

Flooding Effects
As mentioned, flooding causes more damage annually across the nation than any other natural hazard (NOAA, 1992). Types of damage that typically results from flooding include:

- Erosion of stream banks or building foundations and improvements
- Destruction of crop lands directly from flooding, flooding velocity or sediment deposition
- Inundation of buildings or other structures such as water treatment facilities, or park/recreation land
- Flow velocity damage to buildings, bridges or culverts, roadways, croplands

Not only do floods result in significant damage in the short-term, long-term economic effects are significant as the community tries to recover from the effects of the flood. Businesses may close temporarily or permanently as a result of the flood damage, causing loss of revenue as well as unemployment. Critical facilities such as utilities (electric, telephone, water and sewer, gas/oil pipelines) and roadway and airport infrastructure may be disrupted, causing a significant impact to the functioning of a community and the subsequent clean-up and reconstruction.

Break out of Damage in Dollars for the 1986 Flood
There was a total of $95,000,000 in damage to buildings, equipment, and land.

Structures:
3,000+ homes damaged
1 death
10,700 acres flooded

Break out of Damage in Dollars for the 1997 Flood
There was a total of $358,637,000 in damage to buildings, equipment, and land.

Structures	
Infrastructure	
Roads, Bridges, and drainage	$13,077,000
Levee damage	
• RD	$20,000,000
• Marysville	$5,000,000
Residential	
• Homes	$50,000,000
• Mobiles	$5,000,000
Agricultural	
• Buildings and Equipment	$40,850,000
• Crops	$17,583,100
• Livestock	$2,417,000
• Nurseries	$60,000
Industrial	$100,000,000
Taxable Property	$100,000,000

Likelihood of Future Occurrences.
Localized flooding occurs in areas of the county generally as a result of severe winter storms. There are several geographic areas in the County of Yuba prone to localized flooding due to signification rainfall and change in water management practices. Sometimes referred to as ponding, floods occur due to debris accumulation in storm drains and in flood control channels and basins. Low-lying areas of the county are particularly susceptible to localized flooding.

Flood control channels and basins are at risk of overflowing their banks during times of heavy rainfall and reservoir water release. The California Department of Water Resources (DWR) and the U.S. Army Corps of Engineers (USACE) are responsible for notifying the Yuba County at the onset of planned water releases that can adversely impact the community. The National Weather Service (NWS) provides information and notification to Yuba County for severe weather, flooding notices and storm emergencies.

Historically, there has not been an emergency or major disaster declaration specially for flooding within the DOHFPD. No properties within the DOHFPD have sustained FEMA repetitive losses due to flooding.

DOHFPD Rivers: The Middle and North Forks of the Yuba River.

DOHFPD Creeks/Streams: Big Valley Creek , Burnt Bridge Creek, Dobbins Creek, Dry Creek, Indian Creek, Injun Creek, Keystone Creek, Long Valley Creek, McGinn Creek, West Branch, Willow Glen Creek, and Woods Creek.

DOHFPD Dams: Our House Dam, Log Cabin Dam, and the New Bullards Bar Dam, are located on the Yuba River. Lake Francis Dam (Lake Francis) is on Dobbins Creek. The Los Verjeles Dam is located at Lake Mildred on the Lake of the Springs Preserve, a Thousand Trails RV Resort, and fed by Dry Creek. Virginia Ranch Dam holds back Collins Lake which is fed by Dry Creek.

According to the FEMA FIRM panels (Map 060427, Appendices 0125b, 0150b, 0250b, and 0275b) most of the 100-year floodplains are located on Dobbins Creek, Dry Creek, Keystone Creek, and Willow Glen Creek. A SFHA is located from Dry Creek through the community of Oregon House, approximately around Rice's Crossing Road.

The DOHFPD has identified several private culverts, road crossings, and bridges within the DOHFPD that are subject to frequent flooding. The following areas are considered at risk due to localized flooding:

- Highway 70 at McGowan Parkway.
- Hammonton-Smartville Road at Brophy Road.
- Area off Arboga Road at Buttercup and Butterfly Lanes.
- Mage Avenue in Olivehurst.
- Magnolia Avenue off Highway 70.
- Ramirez Road
- Iowa City Road
- Fruitland Rd.
- Simpson Lane

The problem areas are considered to be a hazard in their specific location and are not expected to threaten or endanger the lives of persons in the surrounding areas.

4.1.2.8 Landslide

The DOHFPD has rated landslide as a MODERATE PRIORITY HAZARD.

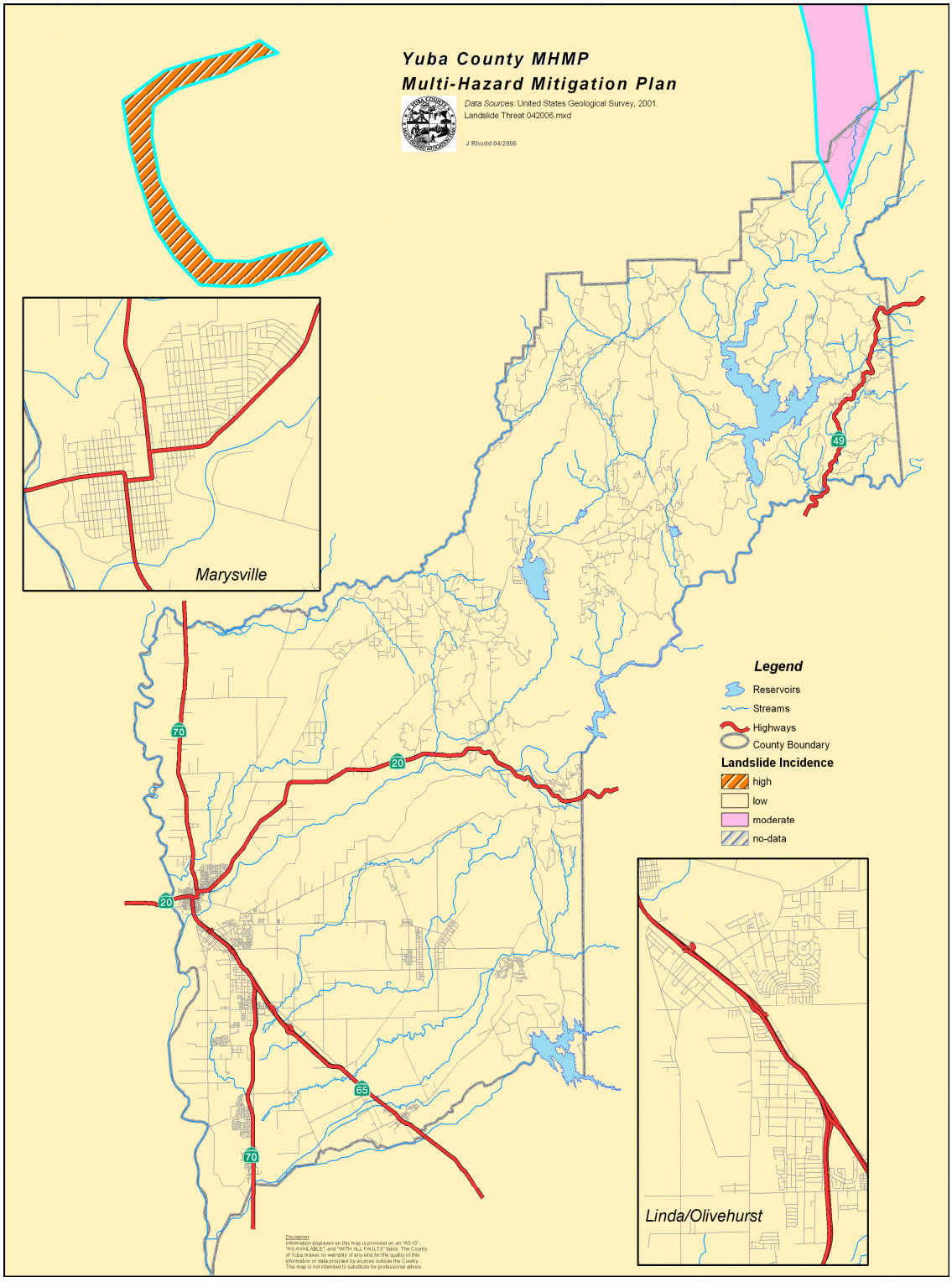
A landslide is a movement of earth (rock or soil) along a sloping surface or by the falling of a mass itself. This term is an umbrella term for events such as rock falls, debris flows, and mudslides. Landslide susceptibility is a result of various combinations of geology, topography, vegetation, and weather. Earthquakes, intense precipitation causing saturated soil, the removal of stabilizing vegetation as a result of fire, or the undermining of surface elevations due to the removal of subsurface support caused by water piping during the high–water season can trigger landslides. If a landslide occurs adjacent to a dam or in a reservoir a dam failure may occur, just as an occurrence adjacent to a levee may precipitate a levee failure.

Critical facilities are located in the DOHFPD, an area with a history of road closures due to landslides, slips, and slumps. Given the remoteness of the area, the steep terrain, and wet winter conditions, landslides can have a disastrous impact on DOHFPD critical facilities and assets. This section discusses the nature of the landslide hazard around the DOHFPD critical assets and facilities.

4.1.2.8.1 Location, Extent, Magnitude, and Severity of Landslide Hazard

FEMA has identified areas of estimated landslide risk across the U.S. Figure 4–15 shows the FEMA-identified landslide potential for Yuba County. Most of Yuba County has been classified by FEMA as having a low landslide potential. Only a small portion near the town of Strawberry Valley outside DOHFPD has a moderate landslide potential. (*source: USGS National Landslide overview map of the United States, 2005*)

Figure 4–15 Yuba County Landslide Susceptibility

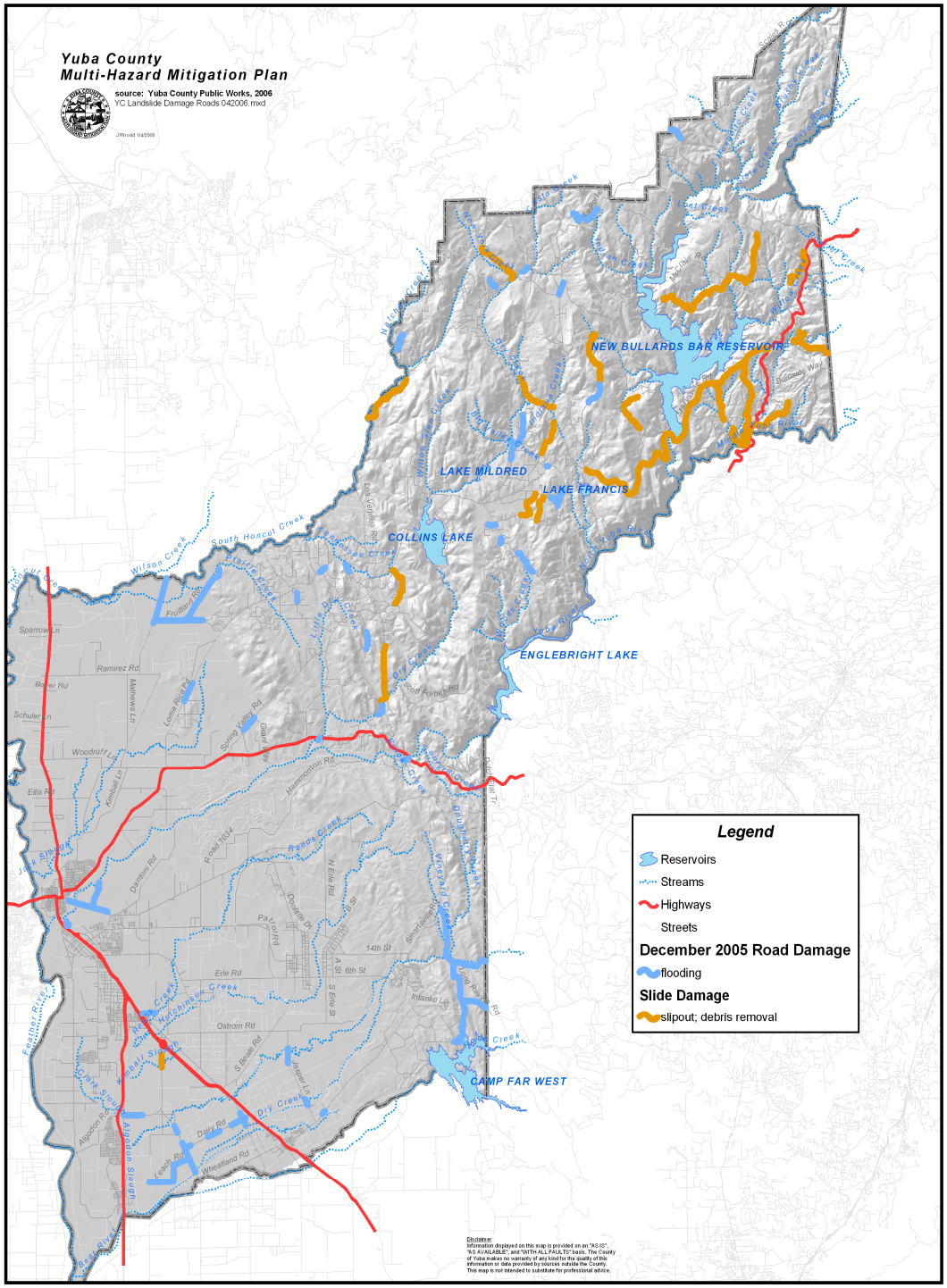


4.1.2.8.2 Previous Occurrences & Probability of Future Occurrence of Landslide Hazard

Historical Occurrences.

Prior to the 2005–2006 wet season, there have been two known landslides in the area of Yuba County Multi-Jurisdictional critical facilities. One occurred in 1968 in Bullards Bar Reservoir near the dam. Another was in 1975 – ½-mile south of the dam where a section of road was destroyed. Other landslides have occurred in DOHFPD on access roads to DOHFPD critical facilities. The 2005–2006 wet season landslide damage to DOHFPD facilities and roads can be seen in Figure 4–16
below.

Figure 4–16 Yuba County Road Landslide Damage



Likelihood of Future Occurrences.
The incorporated areas of the county have increased an average of 2.09 percent annually from 2000 to 2005. The unincorporated areas of Yuba County have increased an average of 2.19 percent over the same time period. (*source: California Department of Finance Table 2: E-4 Population Estimates for Cities, Counties and State, 2001-2005 with 2000 DRU Benchmark, 2005*). Sacramento Area Council of Governments (SACOG), an association of local governments, approves the distribution of affordable housing in the region and assists in planning for transit, has determined a population increase for Yuba County of over 30 percent by 2015. This translates to a population increase of over three percent annually. SACOG has determined a population increase for the unincorporated areas of the County of over 34 percent (3.4 percent annually), over five percent for the incorporated area of the City of Marysville (0.5 percent annually), and over 64 percent for the City of Wheatland (over 6.4 percent annually) by 2015. (*source: http://www.sacog.org/demographics/projections/index.cfm, 2005*) Unless infrastructure is developed to protect the increase population from the threat of landslides in DOHFPD losses from this hazard will continue to increase in the future.

4.1.2.9 Drought

DOHFPD has rated Drought as a MODERATE PRIORITY HAZARD.

Drought is a concern for DOHFPD by causing an increase in fire fuel loads in the district leading to an increase in fire hazards, the greatest hazard concern in the DOHFPD. Drought patterns in California are often connected by meteorologists to the La Nina cold phase in the Pacific. In this pattern a strong high forms in the eastern pacific blocking the storm jet from coming south into California

4.1.2.9.1 Location, Extent, Magnitude, and Severity of Drought Hazards

Table 4–9 Yuba County Drought Disaster Declarations

Disaster Title	Type/Agency	Loss/Cause	Date
Agricultural Disaster	Drought Secretarial, SBA, USDA	SBA#9V54	2001,2002,2004,2005

4.1.2.9.2 Previous Occurrences & Probability of Future Occurrence of Drought Hazard

Historical Occurrences.
According to the National Oceanic and Atmospheric Administration (NOAA), the region wherein the DOHFPD lies is not undergoing long-term drought conditions. The USDA issued the disaster declaration due to drought in Yuba County for 2001, 2002, 2003, 2004, and 2005 (Table 4–7)

The 2004 Drought in Yuba County (S2020) occurred when a 76% decrease in rainfall during the critical forage growth months of March, April and May 2004. The drought conditions lingered throughout the remainder of the year which resulted in a significant loss of available forage for livestock and increased feed costs.

Likelihood of Future Occurrences.
Drought conditions will continue to occur in the future as the local weather patterns are associated with El Niño/La Nina conditions in the Pacific Ocean. While the El Nino conditions in the Pacific are associated with storm tracks that deliver strong winter storms repeatedly across northern California, La Nina conditions are associated with cold wet winters in the northwestern States. NOAA's Climate Prediction Center/NCEP December 8, 2005 prediction model supports either a continuation of El Nino/Southern Oscillation (ENSO) neutral conditions or the development of weak La Nina conditions. *Source: http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/index.html, 2005*)

4.1.2.10 Terrorism

DOHFPD has rated terrorism as a MODERATE PRIORITY HAZARD.

The definition of terrorism as it appears in the United States Code, Title 18, Section 2331 (18 USC 2331): United States federal statue defines terrorism as "violent acts or acts dangerous to human life that…appear to be intended (i) to intimidate or coerce a civilian population; (ii) to influence the policy of a government by intimidation or coercion; or (iii) to affect the conduct of a government by assassination or kidnapping."

All terrorist acts involve violence or the threat of violence and instill fear. These violent acts are generally committed by nongovernmental groups or individuals. Generally, terrorists are neither part of, nor officially serving in the military forces, law enforcement agencies, intelligence services, or other governmental agencies of an established nation-state.

Terrorists attempt to invoke panic and undermine confidence in our government and the political leadership of our country. Terrorism is designed to have far reaching psychological effects beyond the impact of the victims or target of an attack. Terrorists intend to frighten and intimidate a rival audience, ethnic or religious group, country, political leadership or the international community as a whole.

For this reason they rely on dramatic, often spectacular, bloody and destructive acts of hit-and-run violence to attract attention to themselves and their cause. Terrorists use the publicity generated by their violence to leverage influence and power.

Historically, California has had a long experience combating terrorist groups, both domestic and international. Domestic terrorist groups in the state have been largely issue-oriented, while the few known internationally based incidents have mostly targeted the state's émigré communities and been related to foreign disputes. Today, however, both groups are more likely to be aligned nationally and/or internationally through electronic networking. The issues and politics of these groups remain essentially unchanged but now include increasing expressions of hatred for existing forms of government. The World Trade Center Incident demonstrates that international terrorist groups have the potential to operate with deadly effectiveness in this country. Such groups may offer no allegiance to any particular country but seek political or personal objectives that transcend national/state boundaries.

There is appropriate concern that such attacks as witnessed in Tokyo, New York City and Oklahoma City could occur in California. A terrorist acting alone or in concert with any of the known national or international groups could readily commit acts of terrorism in California. The open availability of basic shelf-type chemicals and mail order biological research materials, coupled with an access to even the crudest laboratory facilities, could enable the individual extremist or an organized terrorist faction to manufacture proven highly lethal substances or to fashion less sophisticated weapons of mass destruction. The use of such weapons could result in mass casualties, long term contamination, and wreak havoc to both the state and national economies.

The freedom of movement and virtually unrestricted access to government officials, buildings, and critical infrastructure afforded to California's citizens and foreign visitors, presents the terrorist with the opportunity and conditions of anonymity to deliver such devastation and its tragic consequences with only the crudest devices of nuclear, chemical, or biological content.

Terrorist incidents create a unique environment in which to manage emergency response. Local responders are typically the first on scene during an actual incident and local government has primary responsibility for protecting public health and safety. Ordinarily, the local first response will be conducted under California's Standardized Emergency Management System (SEMS) which forms the basis of California's concept of operations for managing any kind of emergency or disaster, including terrorist incidents. The local responders will manage all aspects of the incident until the FBI assumes command, by virtue of its legal authority, of the law enforcement aspects relating to identifying, apprehending, and neutralizing the terrorists and their weapons. Local and state authorities always maintain control of their response resources and continue to operate utilizing SEMS.

4.1.2.10.1 Location, Extent, Magnitude, and Severity of Terrorism Hazards

The Governor's Office of Homeland Security has identified New Bullards Bar Dam as the only identified critical infrastructure and key resource (CI/KR) site in Yuba County. This designation allows The County of Yuba to apply for funds under the Buffer Zone Protection Program (BZPP). The BZPP allows funding for costs related for equipment, management, and administration of protective actions aimed at protecting, securing, and reducing the vulnerabilities In the case of a breech at New Bullards Bar Dam, not only would there be potential for immediate loss of life and property throughout the inundation area. But, there would also be the collateral loss to tourism and negative environmental effect to fisheries and native habitats.
The most likely target of terrorism is Beale Air Force Base:

Beale Air Force Base is also a potential terrorist target with Yuba County. The former Camp Beale is located approximately 45 miles north of Sacramento and 20 miles east of Marysville in the Northern California foothills of Yuba County. Since 1992 the Air Combat Command has been stationed at Beale Air Force Base with the Phased Array Warning System (PAVE PAWS) Radar Site, designed to detect possible attack by missiles or track a global satellite. Currently Beale AFB is home to the U–2 Reconnaissance Aircraft, the T–38 Jet Trainer, and the KC–135 Tanker. The first Global Hawk arrived at Beale in November 2004. The base currently covers nearly 23,000 acres and employees over 5,000 military, civilian and contract personnel.

Another target for terrorism in this DOHFPD would be the water system. Breeching of the dams or a poisoning of the rivers would have a devastating impact on this DOHFPD. In the case of damn breech, not only would there be potential for immediate loss of life and property throughout the inundation area. But, there would also be the collateral loss to tourism and negative environmental effect to fisheries and native habitats.

Similarly, arson is a threat. Multiple fires could be set with ease on a dry windy day. The resulting situation could easily strain the DOHFPD firefighting resources beyond their limits. Historically, damages incurred from fires have been the most traumatic in terms of lives and monetary damages. The DOHFPD is vulnerable to region wide wildfires that would create a situation wherein resources could not be centralized and coordinated to fight the fire.

4.1.2.10.2 Previous Occurrences & Probability of Future Occurrence of Terrorism Hazard

Historical Occurrences.
Violence and terrorist acts plague our communities and schools and has plagued our county. In 1992 school violence resulted in a tragic event when a former Lindhurst High School student, Eric Houston, held students and teachers hostage for 8 ½ hours. The initial shooting and rampage left several students seriously wounded and resulted in the deaths of three students and one teacher. Law enforcement and school officials are working together to address school crime and violence through preventive efforts.

Likelihood of Future Occurrences.
The danger from man–made attacks is growing despite the more than five–year reprieve we have enjoyed since 9/11. The efforts of the military in the Middle East have unintended consequences of attracting more recruits, including "self–starter" groups. The use of sabotage has also helped proliferate the number of individuals who possess the skills and technology to target critical facilities. Compounding the risk is the just–in–time lifestyle that is an increasing characteristic of DOHFPD residents. The likelihood is that the occurrence of the terrorism hazard will increase in the future.

4.2 Vulnerability Assessment: Overview

DMA 2000 Requirements – Risk Assessment
Assessing Vulnerability: Overview **Requirement §201.6(c)(2)(ii)**: [The risk assessment **shall** include a] description of the jurisdiction's vulnerability to the hazards described in paragraph (c)(2)(1) of this section. This description **shall** include an overall summary of each hazard and its impact on the community. **FMA Requirement §78.5 (b)**: Description of the existing flood hazard and identification of the flood risk, including the estimates of the number and type of structures at risk, repetitive loss properties, and the extent of flood depth and damage potential.
Element A. Does the plan include an **overall summary** description of the jurisdiction's **vulnerability** to each hazard? B. Does the plan address the **impact** of each hazard on the jurisdiction?

Once the level of risk to a hazard event is assessed, the vulnerable assets can be identified. The susceptibility of an asset is quantified in relation to each particular hazard event. The vulnerability of an asset is partially assessed by the spatial relationship of an asset to the potential location of a hazard event and the amount of damage that may be sustained. This data provides the basis for prioritizing mitigation activities that could be implemented to reduce asset vulnerability.

4.2.1 Overall Summary of Vulnerability

This section assesses the vulnerability of DOHFPD facilities to the profiled hazard events. The vulnerability assessment considers the types of threats and the potential impact from loss of use of a facility or infrastructure. The degree of impact is measured in the amount of loss to the facility owner.

There are several types of methods commonly used to assess vulnerability. The methodology used in this assessment, the assumptions made, and the data limitations are discussed in the following section.

4.2.2 Asset Inventory

DMA 2000 Requirements – Risk Assessment
Assessing Vulnerability: Identifying Structures **Requirement §201.6(c)(2)(ii)(A)**: The plan **should** describe vulnerability in terms of the types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard area … **FMA Requirement §78.5 (b)**: Description of the existing flood hazard and identification of the flood risk, including the estimates of the number and type of structures at risk, repetitive loss properties, and the extent of flood depth and damage potential.
Element A. Does the plan describe vulnerability in terms of the **types and numbers** of **existing** buildings (including repetitive loss structures), infrastructure, and critical facilities located in the identified hazard areas? B. Does the plan describe vulnerability on terms of the **types and numbers** of **future** buildings, infrastructure, and critical facilities located in the identified hazard areas?

All of the hazards identified above can have a significant impact on the citizens and their residences, commercial and industrial businesses and services, and critical facilities and infrastructure. As previously noted, critical facilities and infrastructure are those resources that

provide essential services to the public in case of emergency. Such facilities and infrastructure include medical care facilities, emergency shelters, evacuation routes, or producers of products that are essential to responding to an emergency, for example. Knowing the location of assets in case of a hazard event is important for the county to be able to respond effectively and efficiently. This section details the assets in the DOHFPD by noting their function and location. This information will be subsequently used to prepare the vulnerability assessment that will outline potential mitigation options available to the county to lessen the county's exposure and respond timely to a hazard event.

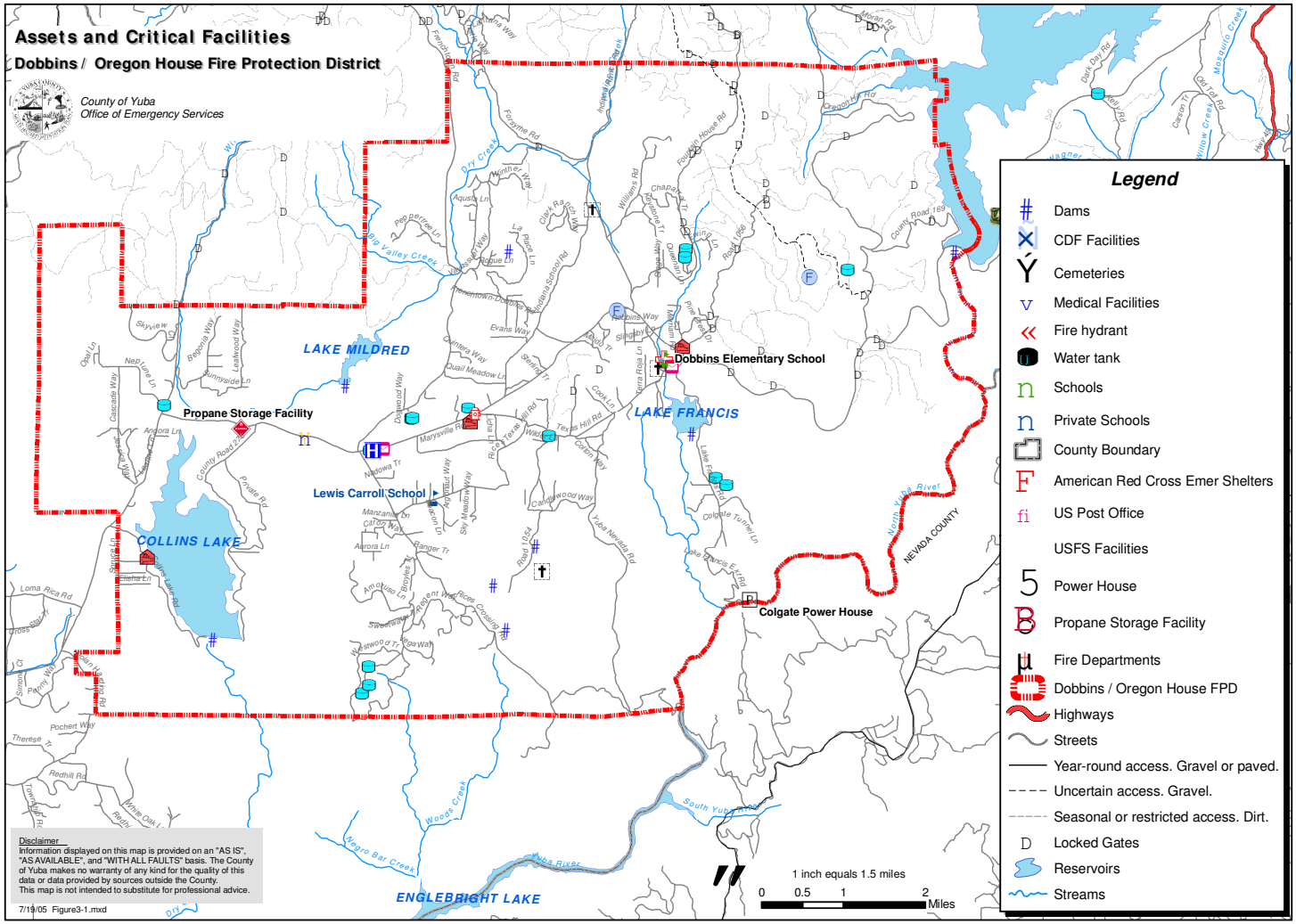
4.2.2.1 Critical Facilities and Economic Assets

The review of all assets, the buildings and facilities, equipment, and infrastructure owned by DOHFPD was completed and is listed below in Table 4–10 and shown in Figure 4–17. DOHFPD facilities protect the local inhabitants from the potential for fire and provide emergency services. All assets are organized and categorized in a GIS so their locations can be identified with respect to identified hazards.

Table 4–10 DOHFPD Asset Inventory

Dobbins-Oregon House Fire Protection District Asset Inventory			
Asset	**Size sq ft**	**Replacement Value**	**Contents Value**
Main Station	3,300	$412,000	$15,100
Sub Station	1,200	$51,000	$2,000
Well House	150	$18,750	
Water Tanks		$9,000	
Total Building Assets		**$490,750**	**$17,100**
6451 Rescue Vehicle		$35,000	$25,000
6452 Rescue Vehicle		$15,000	$20,000
6492 Tanker		$76,000	$1,000
6491 Tanker		$25,000	$1,000
6481 Fire Engine		$125,000	$12,000
6482 Fire Engine		$82,000	$12,000
6472 Attack Engine		$25,000	$18,000
6400 Chief's Unit		$15,000	$5,000
Total Vehicle Value		**$398,000**	**$94,000**
Personal FF Equipment		$20,000	
Total Tax Base		$37,264	
DOHFPD Sub-Total Assets		**$946,014**	**$111,100**
DOHFPD Total Assets		**$1,057,114**	

Figure 4–17 DOHFPD Assets and Critical Facilities



4.2.2.2 Non-DOHFPD Assets

A critical facility is a facility that provides essential services or products to the DOHFPD community. These services can include emergency response and recovery roles, reconstruction services and supplies, safety to people and property, and utilities such as power, communication, and transportation. Non-DOHFPD facilities protect the local inhabitants from the potential for disaster and provide emergency services. These critical facilities are listed below. Included are the Yuba County Water Agency (YCWA) dams, powerhouses, water treatment facility, fish screens, and all access roads to these facilities located with the DOHFPD.

Figure 4–18 shows the location of critical facilities in the DOHFPD. As shown in the figure below, this includes medical care facilities, emergency response facilities, emergency shelters (often schools and churches), hazardous materials facilities, transportation infrastructure, utilities, etc.

Critical Facilities for Response

- Police or Sheriff, County of Yuba, City of Marysville
- Agnes Deen Center — Shelter
  13283 Rices Crossing, Oregon House
- Lake Francis Grange — Shelter
  10775 Texas Hill Road, Dobbins
- Dobbins School — School
- Preschool Dobbins School Lane, Dobbins
- Lewis Carroll School — School

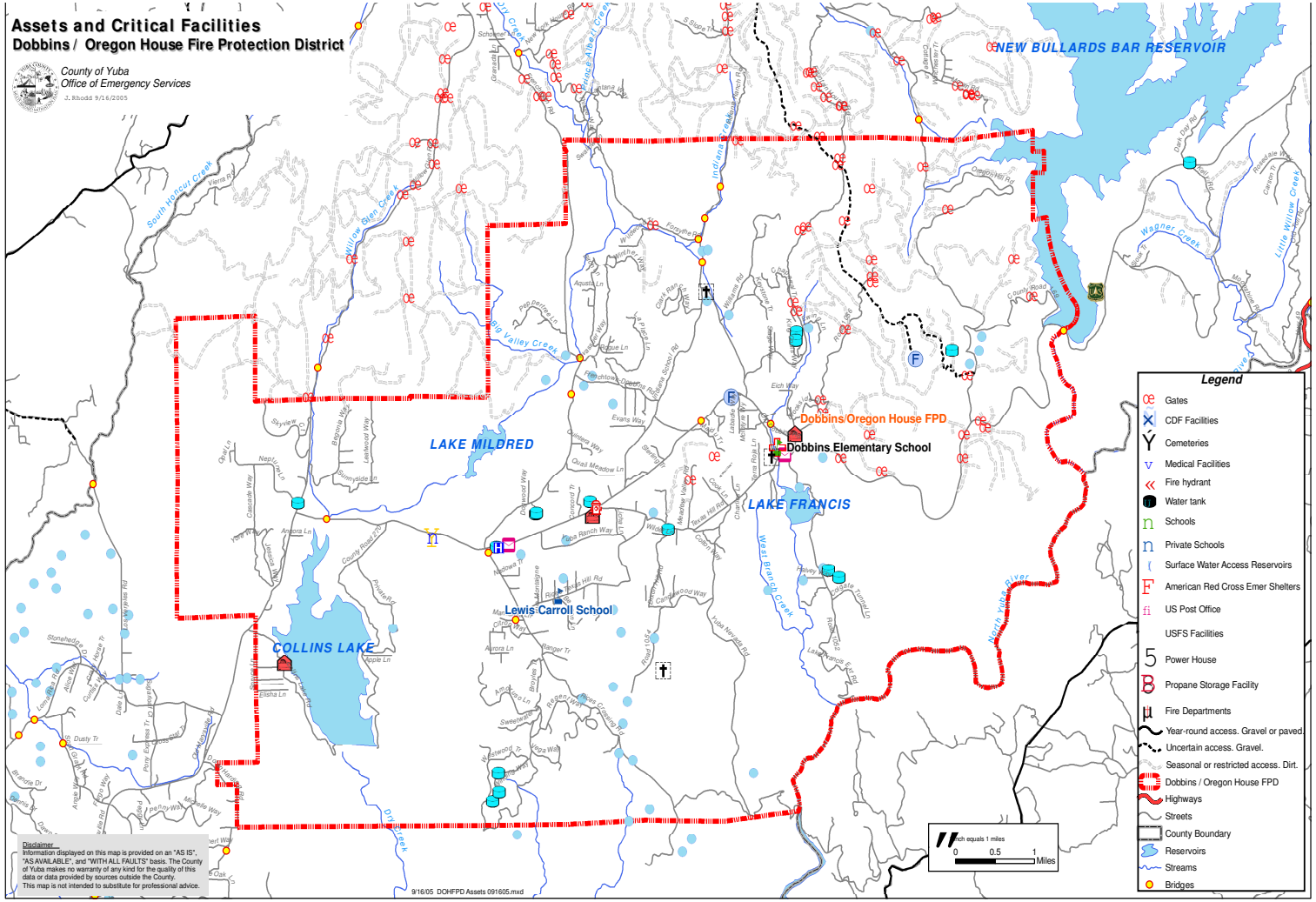
- Dobbins-Oregon House Fire Protection District Station 1
- 9162 Marysville Road, Oregon House
- Dobbins-Oregon House Fire Protection District Ingersoll Substation
- Bridge located at Marysville cross at Dry Creek
- Bridge located at Marysville cross at Collins Lake
- Bridge at Frenchtown Road cross at Dry Creek
- Bridge located at Single Lane Frenchtown Road
- Oregon House Community Clinic (medical)

Critical Facilities for Evacuation and/or Shelter: Recreational Areas

Location Name	Phone	Spaces
Bullards Bar Emerald Cove 12571 Old Marysville Road, Dobbins		Capacity 2500
Collins Lake Recreational Area 7530 Collins Lake Road Oregon House		Capacity 250 Designated 200 Open
Lake Francis Resort 13919 Lake Francis Road, Dobbins		Capacity 150
Thousand Trail (Private) 14152 Frenchtown Road, Oregon House		Capacity 541
Total Spaces		**1141**

Potential Change in population at three per space 3423 + 2500 = 5923

Figure 4–18 DOHFPD Critical Facilities



Permitted Structures in the DOHFPD
Mobile Homes

125 121 Licensed Mobile Homes on private property
126 107 Mobile Homes purchased after 7/1/80 or has delinquent fees
127 41 Mobile home in mobile home parks
129 185 Mobile homes on permanent foundation
454 Total Permitted Mobiles

Permanent Foundation Houses

110 2 Single family w/guest house
115 493 Single family w/o guest house
120 33 – 2 or more complete family dwellings
130 0 Condominium, Townhouse Etc.
135 9 Vacation Cabins
2 Other Residential Structures
538 Total Permitted Houses
992 Total Permitted Residences

Currently, DOHFPD has a permanent population of about 2,400 residents. This permanent population is comprised of approximately 550 homes and 400 mobile homes primarily located in the central portion of DOHFPD in the communities of Oregon House and Dobbins. Along with the communities of Dobbins and Oregon House, the greatest densities of permanent population occur along both sides of Marysville Road, which runs north by northeast between Highway 20 and Highway 49. This area is considered at risk for wildland fires based on historic events.

Approximately one half of the Dobbins Oregon House Fire Protection District (DOHFPD) consists of forests and wildlands administered by the U.S. Department of Forestry, Bureau of Land Management, the University of California, and large private lumber companies. Most of the remaining land is zoned agricultural/rural residential 5 acre. This rural area has a large contingent of unpermitted residential construction, which vehemently does not wish to participate in the permitting process.

The DOHFPD population increases approximately 50 percent during the spring and summer months due to the seasonal tourist influx that takes advantage of the amenities available within the District. DOHFPD has four lakes that provide many outdoor recreation opportunities; Lake Collins, Lake Francis, Bullards Bar and Lake of the Springs. These recreational sites draw as many as 6,000 tourists on any given weekend during the spring and summer months.

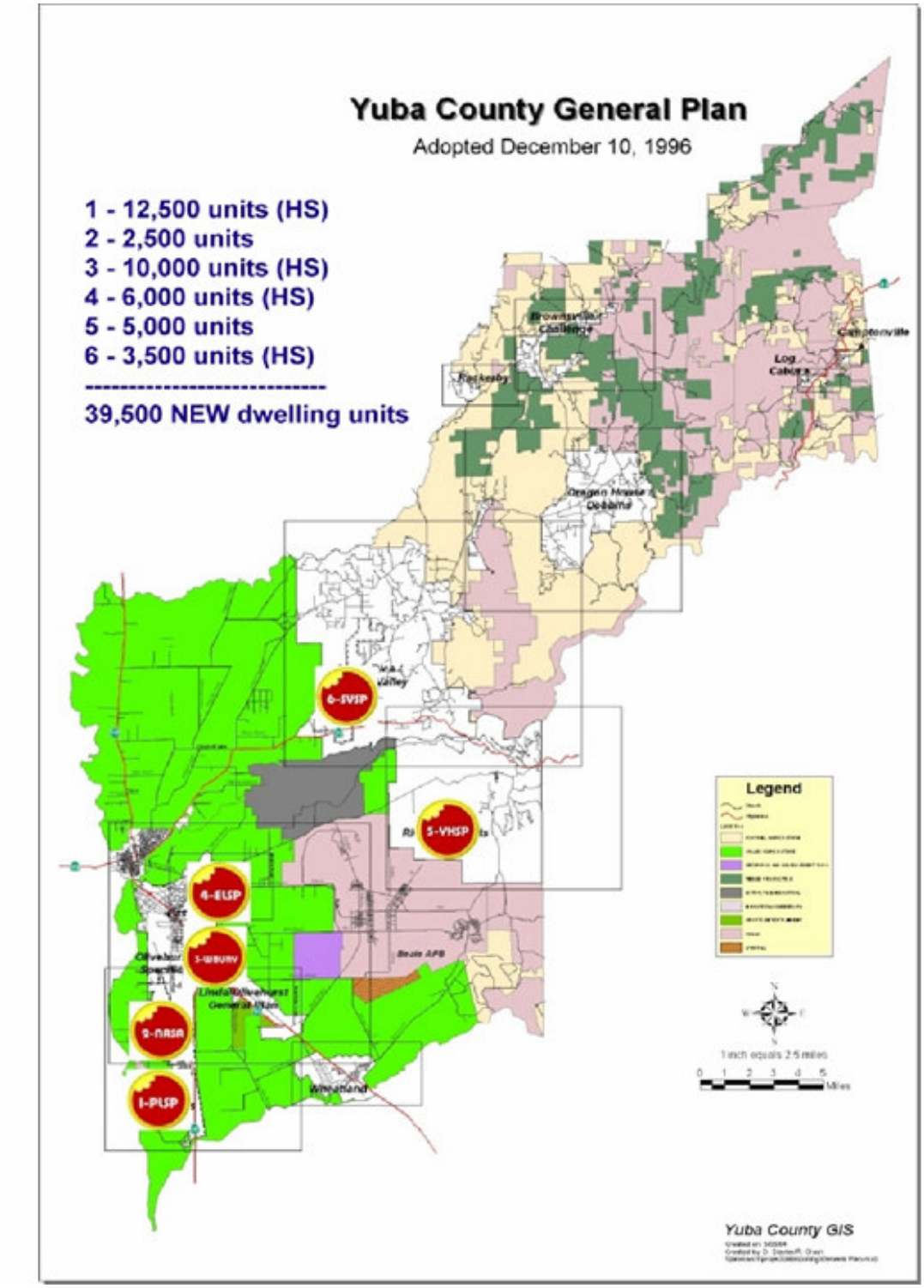
4.2.2.3 Future Critical Facilities and Economic Assets

DMA 2000 Requirements – Risk Assessment
Assessing Vulnerability: Analyzing Development Trends **Requirement §201.6(c)(2)(ii)(C)**: [The plan **should** describe vulnerability in terms of] providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions
Element A. Does the plan estimate **potential dollar** losses to vulnerable structures? B. Does the plan describe the **methodology** used to prepare the estimates?

Approximately one half of the Dobbins Oregon House Fire Protection District (DOHFPD) consists of forests and wildlands administered by the U.S. Department of Forestry, Bureau of Land Management, the University of California, and large private lumber companies. Most of the remaining land is zoned agricultural/rural residential 5 acre. Figure 4–19 maps the current Yuba County Zoning and Specific Plan Designations.

Currently 800 acres are being developed into 20 acre home sites, 250 acres of one acre parcels northeast of Collins Lake, and 26–24 acre parcels along Frenchtown Road. Increased development will require a significantly more rigorous fire management program, with increased equipment, personnel, training and increased coordination and cooperation with other agencies.

Figure 4–19 Yuba County General Plan Map



4.2.3 Vulnerability to Identified Hazard

DMA 2000 Requirements – Risk Assessment
Assessing Vulnerability: Estimating Potential Losses **Requirement §201.6(c)(2)(ii)(B)**: [The plan **should** describe vulnerability in terms of an] estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate
Element C. Does the plan estimate **potential dollar** losses to vulnerable structures? D. Does the plan describe the **methodology** used to prepare the estimates?

Vulnerability is expressed as the relative risk of a population, critical facilities, infrastructure, and building stock to natural and man-made hazards. This relative risk is expressed as the number of people exposed to a hazard as well as the replacement cost of buildings, critical facilities and infrastructure. The location of facilities, the distribution of the population, and the general building stock are overlaid by the locations of hazards and relative hazard risk areas within a GIS algorithm. The population, critical facilities, infrastructure, and building stock located within the inundation area are considered vulnerable.

The terms *loss* and *exposure* are used frequently in vulnerability assessments. Loss is the relative amount of damage that may occur given a particular hazard event, while exposure is the total value, or replacement cost, for building stock or DOHFPD assets. For DOHFPD assets, loss is determined by referencing the location of a facility to the historical or potential occurrence of a natural hazard and determining the amount of damage that may be sustained, while exposure is the total value (often quantified as a replacement cost) of assets and facilities to a hazard event.

The determination of the population at risk was determined for each hazard using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the DOHFPD since the 2000 Census was estimated for new construction and the number of new residents estimated and added to the population loss estimates. Using the Census 2000 data, those residents with an annual income of less than $10,000 or those residents over 65 years of age were identified as special needs residents for the purpose of identifying people that may need assistance in leaving the hazard area.

Economic exposure is compiled from various sources. Structural values are estimated from the structural value in the Yuba County Assessors parcel database. The total land values are also estimated from the land value reported in the Yuba County Assessor's parcel database. The vulnerability is expressed as a worst-case scenario where a complete loss of the structure or facility occurs. This allowed for the identification of the total damage that could occur.

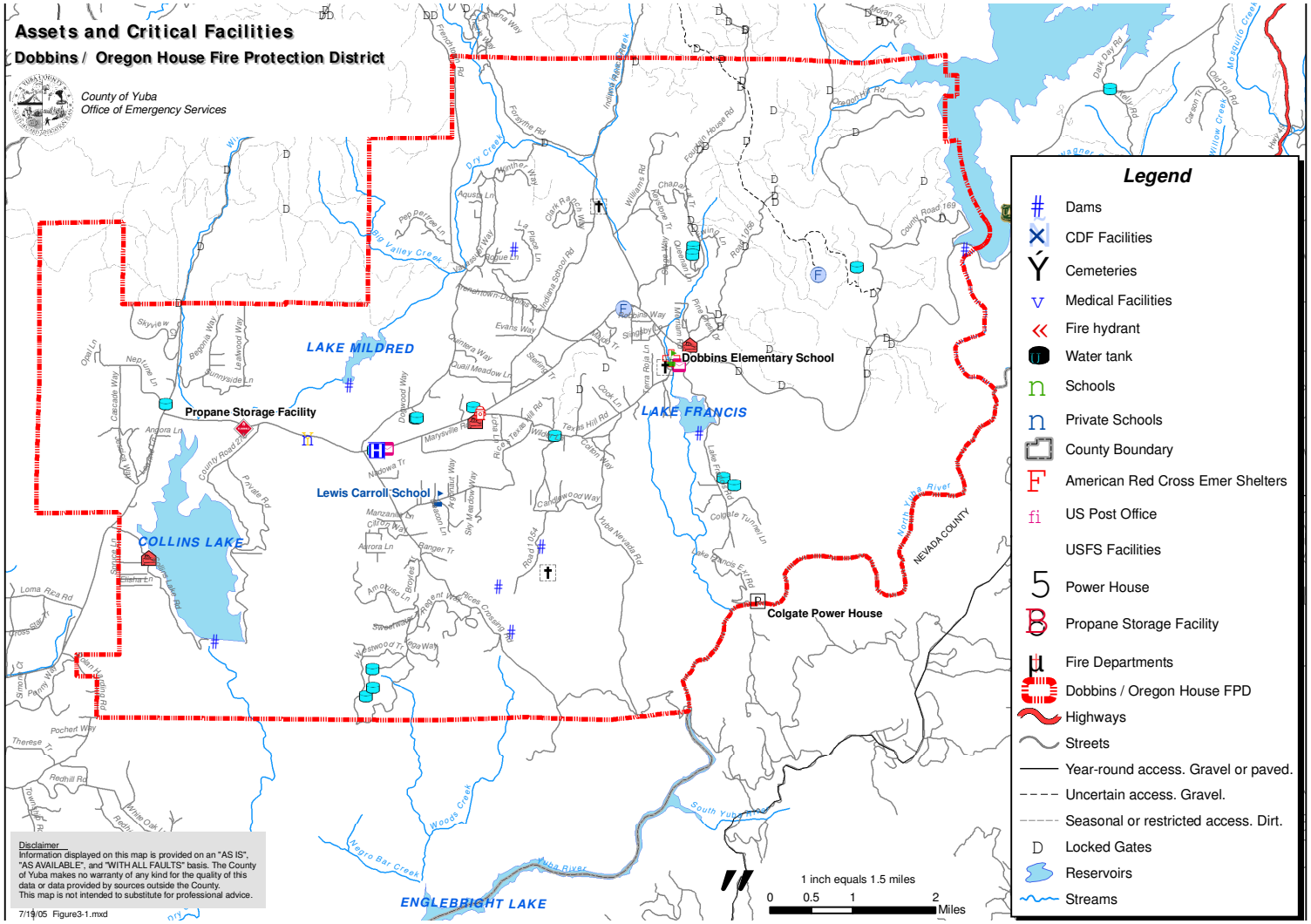
This section describes the methodology used to estimate the vulnerability of the residents of the county and DOHFPD assets to hazard events. The vulnerability assessment considers the potential impact of loss to a facility as well as the vulnerability of the facility to a natural hazard event. The impact of loss is the degree to which the facility is impaired by a natural hazard. This section measures vulnerability by the total exposure to the profiled hazards. By doing so, no consideration is given to varying levels of damage from the various natural hazards. The facility, equipment or infrastructure is assumed to be totally damaged by the hazard event and will require full replacement. In the case of inundation from the loss of a dam, the Federal Energy Regulatory Commission (FERC)-identified inundation areas were used to determine the number of people that could potentially be affected.

The locations of DOHFPD facilities, infrastructure, and inundation areas are shown in Figure 4–20. These locations were entered into the HAZUS program and compared to locations where natural hazards may occur or the probability and degree of hazard (for example, earthquakes). Because of the importance of dams and facilities within DOHFPD to downstream residents and property, the results of a separate, detailed seismic susceptibility study were used to assess vulnerability. This assessment, conducted in 2004 by Geomatrix Consultants, will be presented in Section 4.2.3.6. The assessment to other natural hazards was performed in HAZUS or using standard spatial analysis techniques.

The results of the vulnerability assessment are summarized under each hazard in the following sections. First, a discussion of the limitations of the data sets and assumptions used is presented below.

Uncertainty is inherent in all vulnerability assessments. This assessment uses the best available data from many different sources. In consideration of this, we must note that the results of the assessment are approximations of relative risk by hazard. There are limitations in scientific knowledge. This limitation as well; the assumptions made in determining seismic risk to facilities, population sampling methods, the strength of building materials, uncertainties in hydrologic models, loss estimation techniques where national or regional assumptions are used to represent local conditions – all represent limitations in scientific knowledge that must be considered when reviewing the results of the vulnerability assessment.

Figure 4–20 DOHFPD Assets and Critical Facilities



4.2.3.1 Fire

Fire Description.

Fire impacted properties in the DOHFPD were chosen from the overlay of the CDF fire threat coverage developed in 2004 and the Yuba County Assessors' parcel data. The determination of the population at risk was determined using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the DOHFPD since the 2000 census estimate was estimated for new construction and new residents then added to the population loss estimates.

The CDF fire threat data is available from CDF's Fire and Resource Assessment Program (http://frap.cdf.ca.gov). This dataset identifies the relative threat of wildfire by comparing the fire frequency of an area to the potential fire behavior. The fire frequency or fire rotation half of the fire threat model considers the last 50 years of fire history for land groups (strata) defined by climate, vegetation, and land ownership. The factors are combined into a Fire Rotation Interval, the number of years it would take for past fires to burn an area equivalent to the area of a given stratum. The fuel rank half of the fire threat model is determined from the combination of topography, vegetative fuels under severe weather conditions (wind, humidity, temperature, and fuel moisture), and ladder or crown fuel percent (CDF 2004). These factors are combined into the five classes of the fire threat model. Five classes of fire threat are developed by combining these two assessments: Little or No Threat, Moderate Threat, High Threat, Very High Threat, and Extreme Threat (CDF 2004).

In consideration of the model above, there are other factors than contribute to the threat of wildfire. Meteorological conditions (high winds, recent precipitation, or humidity) or an increase or decrease in fuel load can contribute to or reduce the risk of wildfire.

Economic exposure is compiled from various sources. Structural values are estimated from the structural value in the Yuba County Assessors parcel database. The total land values are also estimated from the land value reported in the Yuba County Assessor's parcel database. The vulnerability is expressed as a worst-case scenario where a complete loss of the structure or facility occurs. No consideration is given to varying levels of damage from fire. In the analysis, the facility, equipment, or infrastructure is assumed to be totally damaged by the fire hazard event and will require full replacement. This assumption allowed for the identification of the total damage that could occur.

4.2.3.1.1 Potential Loss Estimate

Fire Impact.

Fire Critical Facilities and Infrastructure

All DOHFPD critical facilities are exposed to the fire threat hazard. As seen in Figure 4–21 DOHFPD is primarily very high fire threat with portions rated high fire threat. Over 93 percent of the DOHFPD population lives in a very high fire threat area, with over five percent residing in a high fire threat area. The remaining less than one percent of the DOHFPD inhabitants live in a little to moderate fire threat area. The total structure value exposed to a very high fire threat is over $80,394,000 and over $20,687,000 in structure value is exposed to high fire threat. The remaining $6,764,000 is in the little to no fore threat area of the DOHFPD. Ratios for the number of households with incomes less than $10,000 and the population over 64 years were estimated from the Census 2000 population estimates. This information is presented in Table 4–11. The population directly impacted by fire was estimated to be 2,340. 104–households are estimated to have household incomes less than $10,000 and 365 people were estimated to be over 64 years old within the very high fire threat area within the DOHFPD.

Figure 4–21 Fire Vulnerability

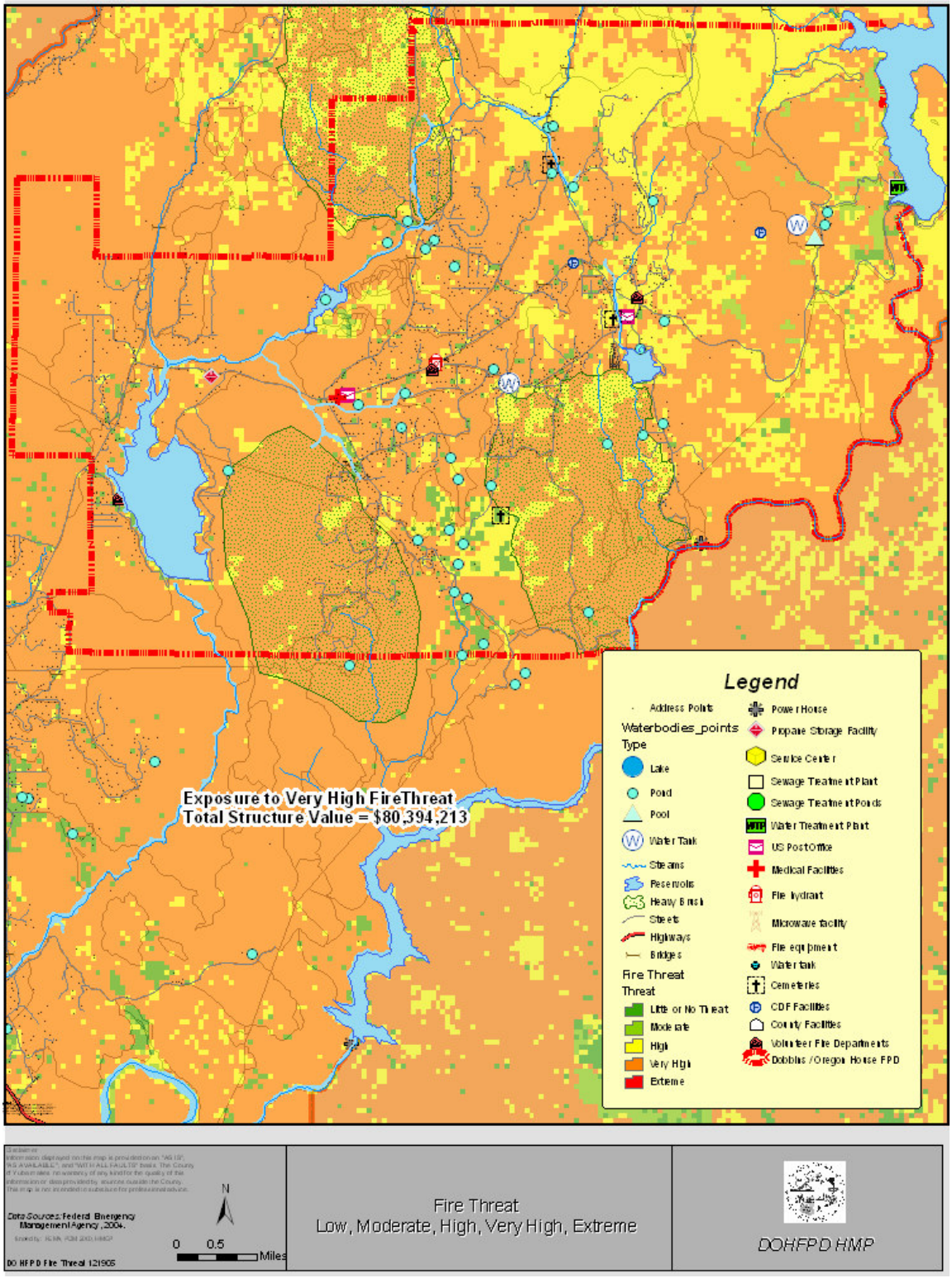


Table 4–11 Fire Asset Vulnerability

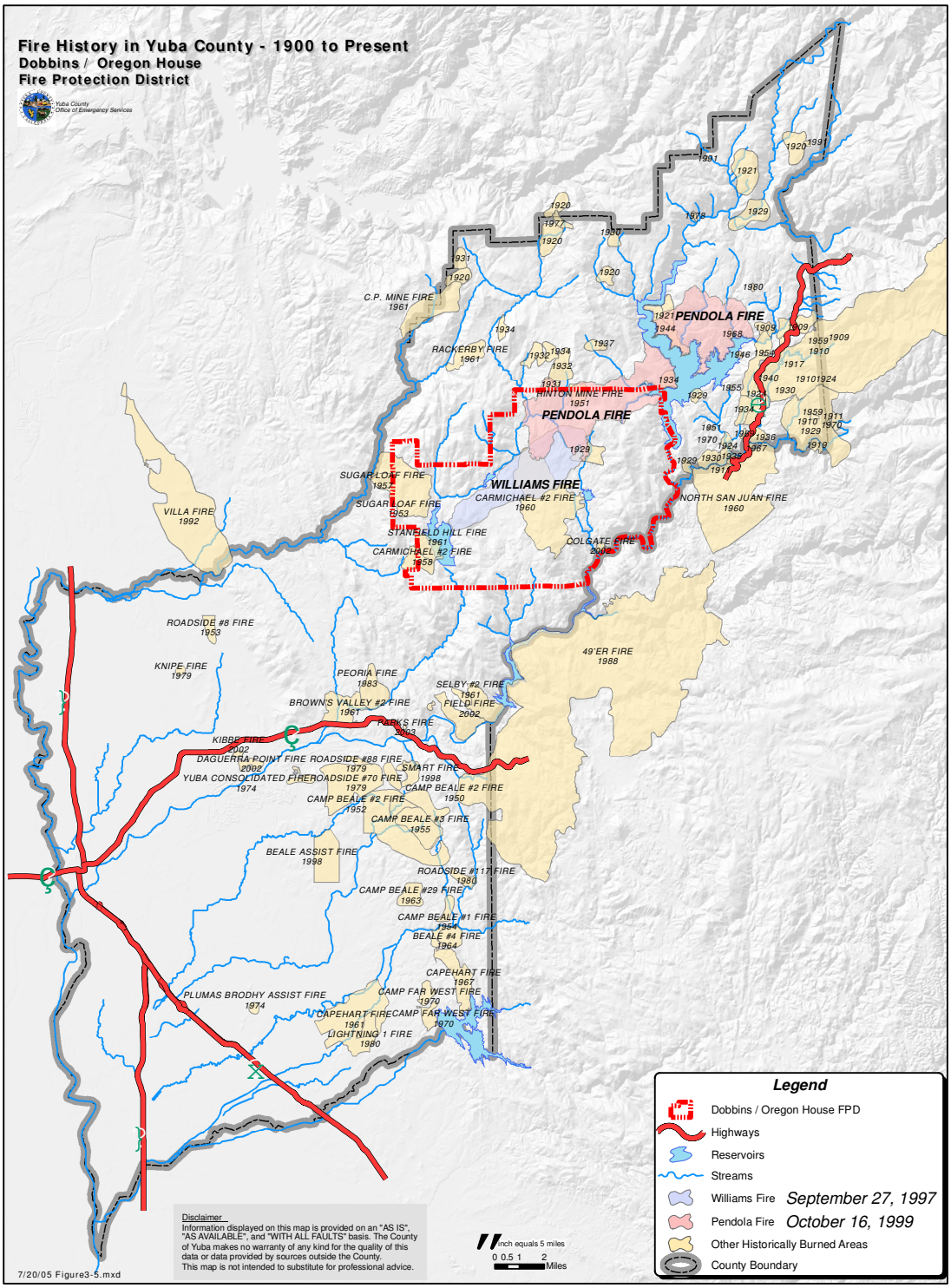
Fire Hazard Vulnerability Dollar Exposure				
	Population affected	**Households with income below $10,000**	**Population over 64 years old**	**Total Exposure $**
Little or no threat	7	0	5	$6,764,945
Moderate	11	1	0	$0
High	130	1	18	$20,687,196
Very High	2179	104	365	$80,394,213
Extreme	0	0	0	N/A
Total exposure based on structural improvement values per parcel				
Notes: Census blocks selected by intersecting flood zones onto Census 2000 blocks				
Source: California Department of Forestry & Fire Protection, 2004				

4.2.3.1.2 Impact of Future Development

Figure 4–22 depicts the fire history of the DOHFPD since 1950. As can be seen, there is a substantial history of wildfire in the county. In recent years, two large fires, the 1997 Pendola Fire and the 1999 Williams Fire, ravaged large portions of the DOHFPD. Fire has the potential of damaging DOHFPD facilities and cutting off access routes to both residences and critical facilities.

In the absence of serious mitigation efforts, fires of varied characteristics will become the norm rather than the exception. The most recent fires involved $2.04 billion in property losses for the 1.9 million property claims filed and suppression costs in the range of $250 million. As the DOHFPD continues to develop and new structures are built the potential losses to fire threat will balloon.

Figure 4–22 DOHFPD Fire History



4.2.3.2 Transportation Incident/Accidents

Description.

Transportation incidents usually do not impact property by directly destroying structures. Traffic incidents usually impact the DOHFPD through the serious injuries, loss of life, and associated personal property damage. Because large number of patients may be involved, significant multi–casualty incidents may tax local emergency medical and hospital resources, and require a regional response. The damage to personal property will not be estimated because such losses should be covered by insurance.

4.2.3.2.1 Potential Loss Estimate

Transportation Incident/Accidents Impact:

Transportation Incident/Accidents Critical Facilities and Infrastructure

Table 4–12 Transportation Incident/Accidents Asset Vulnerability

Transportation Incident/Accident Hazard Vulnerability Dollar Exposure				
	Population affected	**Households with income below $10,000**	**Population over 64 years old**	**Total Exposure $**
Injury accident $600 per incident	659			$395,400
Total exposure based on response cost per single injury accident				
Notes: Annual average traffic accidents with fatality or injury				
Source: California Department of Forestry & Fire Protection, 2004				

4.2.3.2.2 Impact of Future Development

Future development within DOHFPD will increase the likelihood of traffic accidents in the District. As the area develops, more vehicles will be on roads that were not intended to handle high volumes of traffic

4.2.3.3 Man-Made Hazardous Materials

Description.

Man-Mad Hazardous Material usually does not impact property by directly destroying structures. Man-made hazardous materials events usually impact the DOHFPD through the release of a toxic gas plume (chlorine, ammonia, or propane gases), a substance release that contaminates the groundwater or soil (diesel or gasoline) which can then cause chronic or long-term effects. Another source that impacts DOHFPD is clandestine illegal substance labs. These clandestine labs can produce methamphetamine in as few as six to eight hours (Swetlow, 2003) and generate between five and seven pounds of toxic waste for every pound of methamphetamine (Butterfield, 2004; NCDOJ, 2004). Riverside California statistics indicate that most "cooks" make meth 48 to 72 times a year (Riverside DEC, 2005). Typical toxic chemicals found in clandestine meth labs in the DOHFPD include acetone, methanol, ammonia, benzene, ether, freon, hydriodic acid, hydrochloric acid, iodine crystals, lithium, muriatic acid, phosophine gas, pseudosphedrine, red phosphorus, sodium hydroxide, sulfuric acid, and toluene. Toxic substances seep into the pores of structures contaminated in the production of clandestine meth manufacture where they are touched or inhaled by unsuspecting occupants for years after the labs are gone. Contaminates must be removed from the structure, cleaning with soap and water and painting are not enough to ensure that chemical dangers are eliminated.

The properties impacted by man made hazardous materials were chosen from the overlay of known sources of potential man-made hazardous materials permitted with the Yuba County Certified Unified Program Agency (CUPA). The determination of the population at risk was determined using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the DOHFPD since the 2000 census estimate was estimated for new construction and new residents then added to the population loss estimates.

Economic exposure is compiled from various sources. Structural values are estimated from the structural value in the Yuba County Assessors parcel database. The total land values are also estimated from the land value reported in the Yuba County Assessor's parcel database. The vulnerability is expressed as a worst-case scenario where a complete loss of the structure or facility occurs. No consideration is given to varying levels of damage from man-made hazardous materials. The facility, equipment, or infrastructure is assumed to be totally damaged by the hazard event and will require full replacement. This allowed for the identification of the total damage that could occur.

4.2.3.3.1 Potential Loss Estimate

The true cost of a HazMat incident in DOHFPD is difficult to quantify. The primary cost would be in remediation of the environment due to a release or causing a fire due to a release (the fire doing the actual damage). There is not enough gasses such as chlorine to cause severe problem over any widespread area and would most likely not impact infrastructure. However a gasoline, diesel or transformer oil spill could cause a large area of contamination to soil and groundwater and cause severe issues with waterways, such as, creeks, rivers and lakes. Meth houses can generally be remediated for $7,000 to $13,000 on average, however a worst case scenario would cause the complete demolition of the structure and may include removal of the septic and cleanup of soil and groundwater.

Table 4–13 Man–Made Hazardous Material Sites

Name	Address	City	Substance
Brown's Gas Company	8124 Marysville Road	Oregon House	propane storage & delivery
Collins Lake Recreation Area	Old Marysville Road	Oregon House	gasoline, propane, diesel
Dobbins CDF Station	9946 Marysville Road	Dobbins	diesel
Emerald Cove Marina	12570 Marysville Road	Dobbins	gasoline
Oregon House Grocery and Deli	13439 Rices Crossing Road	Oregon House	diesel, gas, propane
PG&E Colgate Switch Substation	Lake Francis Rd @Colgate Pwhse	Dobbins	insulating oil pcb
PG&E Dobbins Substation	Colgate House Rd.	Dobbins	insulating oil pcb
Renaissance Vineyard & Winery	12585 Rices Crossing Road	Oregon House	diese, gasl
SBC--TB097	8778 Marysville Road	Oregon House	diesel
Siller Brothers Inc	14928 Frenchtown Road	Oregon House	diesel
Thousand Trails	14152 Frenchtown Road	Oregon House	gasoline, propane, diesel
USFS-Bullards Bar Work Center	Vista Point Drive	Camptonville	propane
Verizon Wireless-Oregon Peak	Oregon Peak Lookout	Dobbins	lead-calciun battery
Yuba Co. Water Agency-Colgate	12700 Lake Francis Rd.	Dobbins	shell turbo 68, diesel, gas
Foothill Ace Hardware	Marysville Rd	Oregon House	various flammable liquids
Cardoza's Towing & Wrecking	Marysville Rd	Oregon House	oil, gas, tires
Lake Francis Resort	Lake Francis Rd	Dobbins	propane

4.2.3.3.2 Impact of Future Development

The future development of the District will increase the incidences of this hazard. In the absence of mitigation measures, occurrences of damage relating to this hazard will increase as the population grows.

4.2.3.4 Severe Winter Storm

Description.

DOHFPD's critical facilities are exposed to the severe winter storm threat by the direct destruction of structures and infrastructure. The severe winter storms in DOHFPD can occur from October through May. Severe winter storms impacted properties in the County were chosen from the County's historic damage assessment records. The determination of the population at risk was determined using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the County since the 2000 census estimate was estimated for new construction and new residents then added to the population loss estimates.

Economic exposure is compiled form various sources. Structure values are estimated from the structural value in the Yuba county Assessors parcel database. The total land values are also estimated from the land value reported in the Yuba County Assessor's parcel database. The vulnerability is expressed as a worst–case scenario where a complete loss of the structure or facility occurs. No consideration is given for varying levels of damage from a severe winter storm. The facility, equipment, or infrastructure is assumed to be totally damaged by the hazard event requiring full replacement. This process allowed for the identification of the total damage that could occur.

4.2.3.4.1 Potential Loss Estimate

Table 4–14 Severe Winter Storm Asset Vulnerability

Dobbins-Oregon House Fire Protection District Asset Inventory			
Asset	**Size sq ft**	**Replacement Value**	**Contents Value**
Main Station	3,300	$412,000	$15,100
Sub Station	1,200	$51,000	$2,000
Well House	150	$18,750	
Water Tanks		$9,000	
Total Building Assets		**$490,750**	**$17,100**
6451 Rescue Vehicle		$35,000	$25,000
6452 Rescue Vehicle		$15,000	$20,000
6492 Tanker		$76,000	$1,000
6491 Tanker		$25,000	$1,000
6481 Fire Engine		$125,000	$12,000
6482 Fire Engine		$82,000	$12,000
6472 Attack Engine		$25,000	$18,000
6400 Chief's Unit		$15,000	$5,000
Total Vehicle Value		**$398,000**	**$94,000**
Personal FF Equipment		$20,000	
Total Tax Base		$37,264	
DOHFPD Sub-Total Assets		**$946,014**	**$111,100**
DOHFPD Total Assets		**$1,057,114**	

4.2.3.4.2 Impact of Future Development

The future development of the District will increase the incidences of this hazard. In the absence of mitigation measures, occurrences of damage relating to this hazard will increase as the population grows.

4.2.3.5 Earthquake

Description.

Earthquakes are low probability, high–consequence events; although they may occur only once in the lifetime of a particular asset, they can have devastating effects. Moderate earthquakes occur more frequently than major earthquakes. Nevertheless, a moderate earthquake can cause serious damage to unreinforced buildings (i.e., unreinforced masonry buildings, buildings constructed without seismic requirements, or buildings designed to obsolete standards), building contents, and non–structural systems, and can cause serious disruption in building operations. Major earthquakes can cause catastrophic damage, including collapse and massive loss of life.

The severity of an earthquake can be expressed both as magnitude and as intensity. Magnitude is usually expressed with Arabic numerals and characterized the size of an earthquake, the energy released (Table 4–15). The intensity of an earthquake is usually expressed in roman numerals indicating the local effects and the potential for damage produced on the Earth's surface (Table 4–16). The difference between magnitude and intensity is analogous to a radio broadcasting station. Magnitude can be compared to the power output in kilowatts, while intensity is comparable to signal strength on a receiver at a given locality. Thus damage from an earthquake is dependent upon the magnitude of the event and the distance from the event epicenter.

Table 4–15 Earthquake Magnitude

Description	minor	light	moderate	strong	major	great	rare great
Magnitude	3.0–3.9	4.0–4.9	5.0–5.9	6.0–6.9	7.0–7.9	8.0–8.9	9.0 or greater
Effects	Often felt, no damage	Pictures move	Major damage to poorly constructed buildings, chimneys crack & fall	Destructive within 100 mile circumference	Serious damage over larger areas	Serious damage over several hundred mile diameter	Devastation in several thousand mile diameter

Table 4–16 Earthquake Intensity

Perceived Shaking	Very light	light	moderate	strong	Very strong	violent	extreme
Potential Damage	none	Pictures move	Objects fall	Nonstructural damage	Moderate damage	Heavy damage	Extreme damage
Peak Ground Acceleration			0.12	0.21	0.36	0.53	0.71
Modified Mercalli Intensity	IV	V	VI	VII	VIII	IX	X+

While damage from an earthquake usually does not occur until the magnitude reaches 4 or 5, with a magnitude of 4 being comparable to 15 tons of TNT, some of Yuba County jurisdiction's critical facilities are vulnerable to an earthquake of a magnitude of 5 and all are vulnerable to an earthquake of a magnitude of 6.0. The likelihood that DOHFPD will experience an earthquake of 5.0 or greater is illustrated in Figure 4–23. Yuba County's vulnerability to a strong earthquake is illustrated shown in Figure 4-24. DOHFPD has a probability of 50 percent that it will experience an earthquake of magnitude greater than or equal to 6.01 within 500 years.

Figure 4–23 500–Year Earthquake with Magnitude ≥5.0

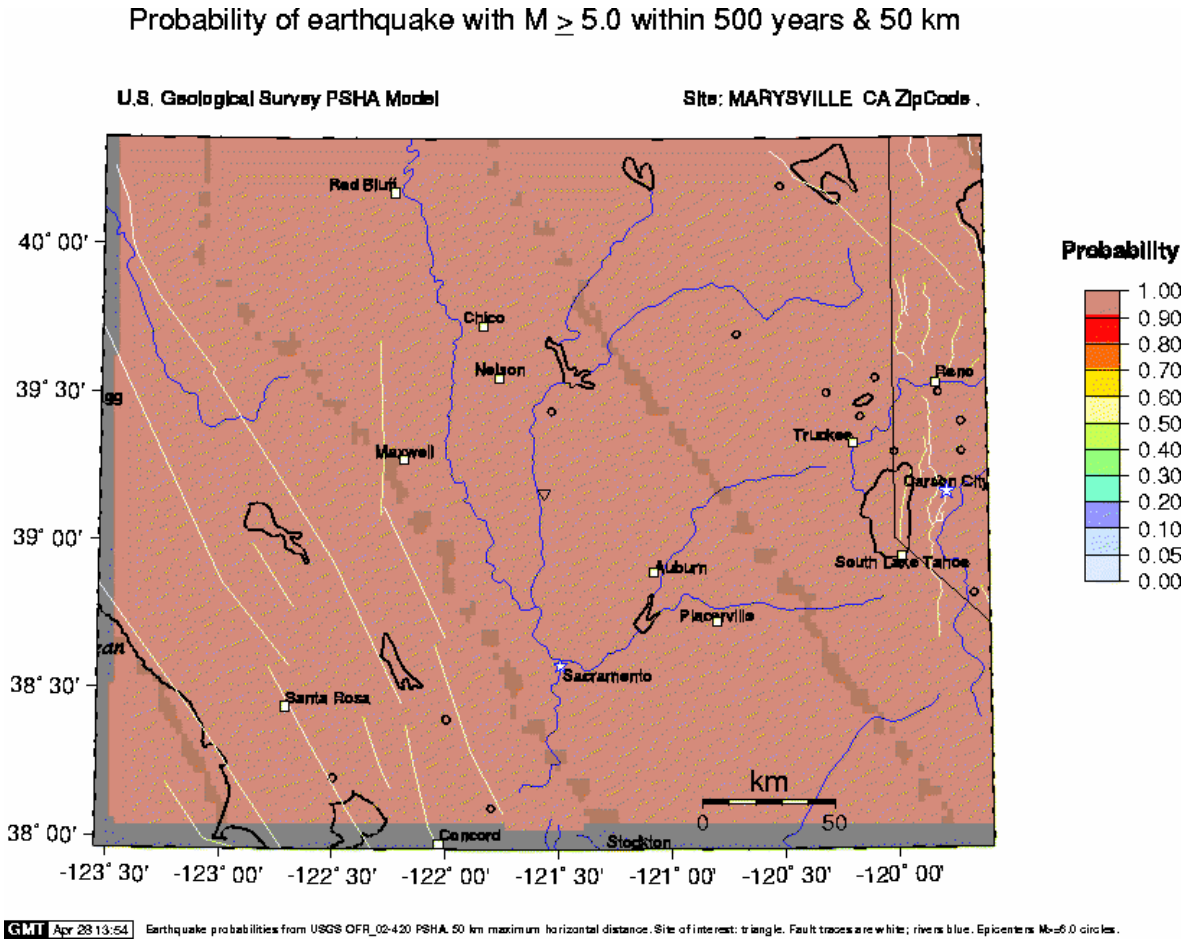
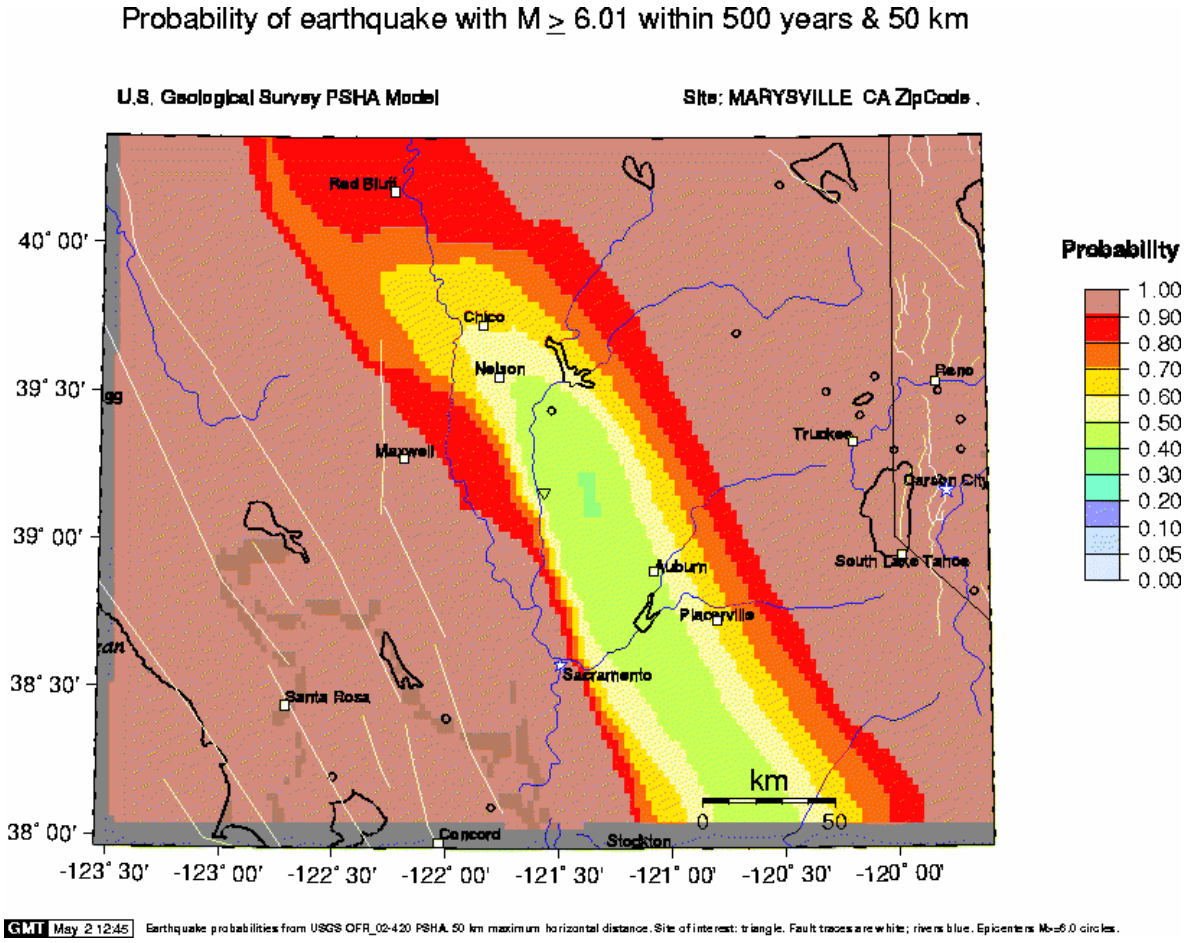


Figure 4–24 500–Year with Magnitude >6.01



The vulnerability to Yuba County was calculated using the Yuba County Assessor's parcel data, peak ground acceleration for a 500–year earthquake from the California Geological Survey, and data from FEMA's HAZUS software for GIS–based risk assessment. The determination of the population at risk was determined using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the County since the 2000 census estimate was estimated for new construction and new residents then added to the population loss estimates.

Economic exposure is compiled from various sources. Structural values are estimated for each building with information from various Yuba County Assessors databases. Information was also obtained from various Assessors databases for square footage, the year constructed; build quality classification, and construction materials for each building. Repair cost was calculated from building damage ratio (BDR) and Loss of Function (LOF) tables supplied by FEMA and the number of days of lost use. This allowed for the identification of the total damage that could occur.

The exposure to an earthquake event of Yuba County residents was determined by overlaying the census blocks by the event layer. This population estimate is only accurate for a nighttime event when homes are occupied.

4.2.3.5.1 Potential Loss Estimate

Earthquake Impact.

Table 4–17 Earthquake Asset Vulnerability

Dobbins-Oregon House Fire Protection District Asset Inventory			
Asset	**Size sq ft**	**Replacement Value**	**Contents Value**
Main Station	3,300	$412,000	$15,100
Sub Station	1,200	$51,000	$2,000
Well House	150	$18,750	
Water Tanks		$9,000	
Total Building Assets		**$490,750**	**$17,100**
6451 Rescue Vehicle		$35,000	$25,000
6452 Rescue Vehicle		$15,000	$20,000
6492 Tanker		$76,000	$1,000
6491 Tanker		$25,000	$1,000
6481 Fire Engine		$125,000	$12,000
6482 Fire Engine		$82,000	$12,000
6472 Attack Engine		$25,000	$18,000
6400 Chief's Unit		$15,000	$5,000
Total Vehicle Value		**$398,000**	**$94,000**
Personal FF Equipment		$20,000	
Total Tax Base		$37,264	
DOHFPD Sub-Total Assets		**$946,014**	**$111,100**
DOHFPD Total Assets		**$1,057,114**	

4.2.3.5.2 Impact of Future Development

The probability of an occurrence of this hazard is considered low. However, should an earthquake occur, the damage resulting from the event would be increased as DOHFPD continues to develop

4.2.3.6 Dam Failure

Description.
Dam failure impacted properties in the DOHFPD were chosen from the overlay of the FEMA 100 years flood zone and the Yuba County Assessors' parcel data. The determination of the population at risk was determined using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the DOHFPD since the 2000 census estimate was estimated for new construction and new residents then added to the population loss estimates.

Economic exposure is compiled from various sources. Structural values are estimated from the structural value in the Yuba County Assessors parcel database. The total land values are also estimated from the land value reported in the Yuba County Assessor's parcel database. The vulnerability is expressed as a worst-case scenario where a complete loss of the structure or facility occurs. No consideration is given to varying levels of damage from flooding. The facility, equipment or infrastructure is assumed to be totally damaged by the hazard event and will require full replacement. This allowed for the identification of the total damage that could occur. Federal Energy Regulatory Commission (FERC)-identified inundation areas were used to determine the number of people that could potentially be affected.

4.2.3.6.1 Potential Loss Estimate

Dam Failure Impact.
Vulnerability of DOHFPD residents to dam failure is limited. Dam failure inundation areas were obtained in GIS format from the State of California's Governor's Office of Emergency Services (State OES) or created in a GIS format by digitizing the inundation areas from YCWA or FERC documents.

Three residences are located within the Dam Failure inundation area. More specifically, three residences are located within the Lake Francis Dam Failure inundation area. The estimated potential structural loss due to a dam failure in the DOHFPD is $223,916

Figure 4–25 Dam Failure Critical Facilities and Infrastructure Vulnerability

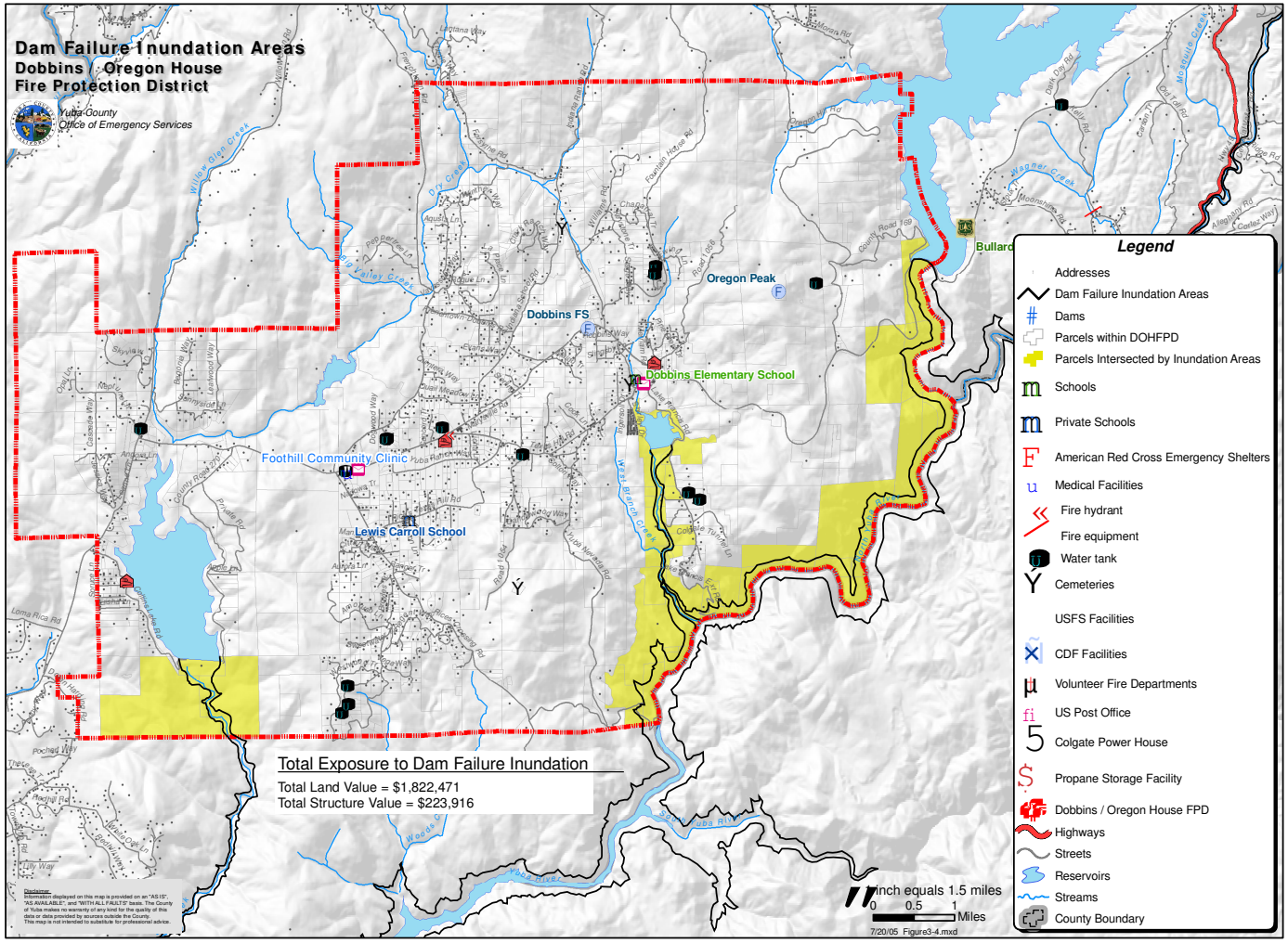


Table 4–18 Dam Failure Asset Vulnerability

Dam Failure Hazard Vulnerability
DOHFPD Hazard Mitigation Plan

	Population affected	Households with incomes < $10,000	Population over 64 years old	Dollar Exposure: Total Exposure [1]	Dollar Exposure: Structure
Lake Francis Dam [2]	7	na	3	$2,046,387	$223,916

[1] Total Exposure based on structural improvement values per parcel.

[2] Examination of aerial photography shows no residences within the Lake Francis Dam inundation area

Notes : Census blocks selected by intersecting floood zones onto Census 2000 blocks

4.2.3.6.2 Impact of Future Development

The population estimated due to dam failure was much smaller than the intersected census blocks. This is especially true for Lake Francis Dam, as the flooding would be confined to the narrow canyon downstream where few, if any, people live. Dams are not generally destroyed by flooding, so the exposure to damage from flooding is estimated to be 50 percent of the total replacement cost. New development in the area will increase the population and structures exposed to potential damage from possible dam failure. However, at the current time new development is occurring outside the dam failure inundation area.

4.2.3.7 Flooding

Description.

Flood impacted properties in the DOHFPD were chosen from the overlay of the FEMA 100 years flood zone and the Yuba County Assessors' parcel data. The determination of the population at risk was determined using Census 2000 data and California Department of Finance population growth estimates in GIS. Where possible, the population growth experienced in the DOHFPD since the 2000 census estimate was estimated for new construction and new residents then added to the population loss estimates.

Economic exposure is compiled from various sources. Structural values are estimated from the structural value in the Yuba County Assessors parcel database. The total land values are also estimated from the land value reported in the Yuba County Assessor's parcel database. The vulnerability is expressed as a worst-case scenario where a complete loss of the structure or facility occurs. No consideration is given to varying levels of damage from flooding. The facility, equipment or infrastructure is assumed to be totally damaged by the hazard event and will require full replacement. This allowed for the identification of the total damage that could occur.

4.2.3.7.1 Potential Loss Estimate

Flooding Impact.

Flooding Critical Facilities and Infrastructure

While the Dobbins Elementary School is close, no DOHFPD critical facilities are influenced by the 100–year flood event.

Figure 4–26 Flood Vulnerability

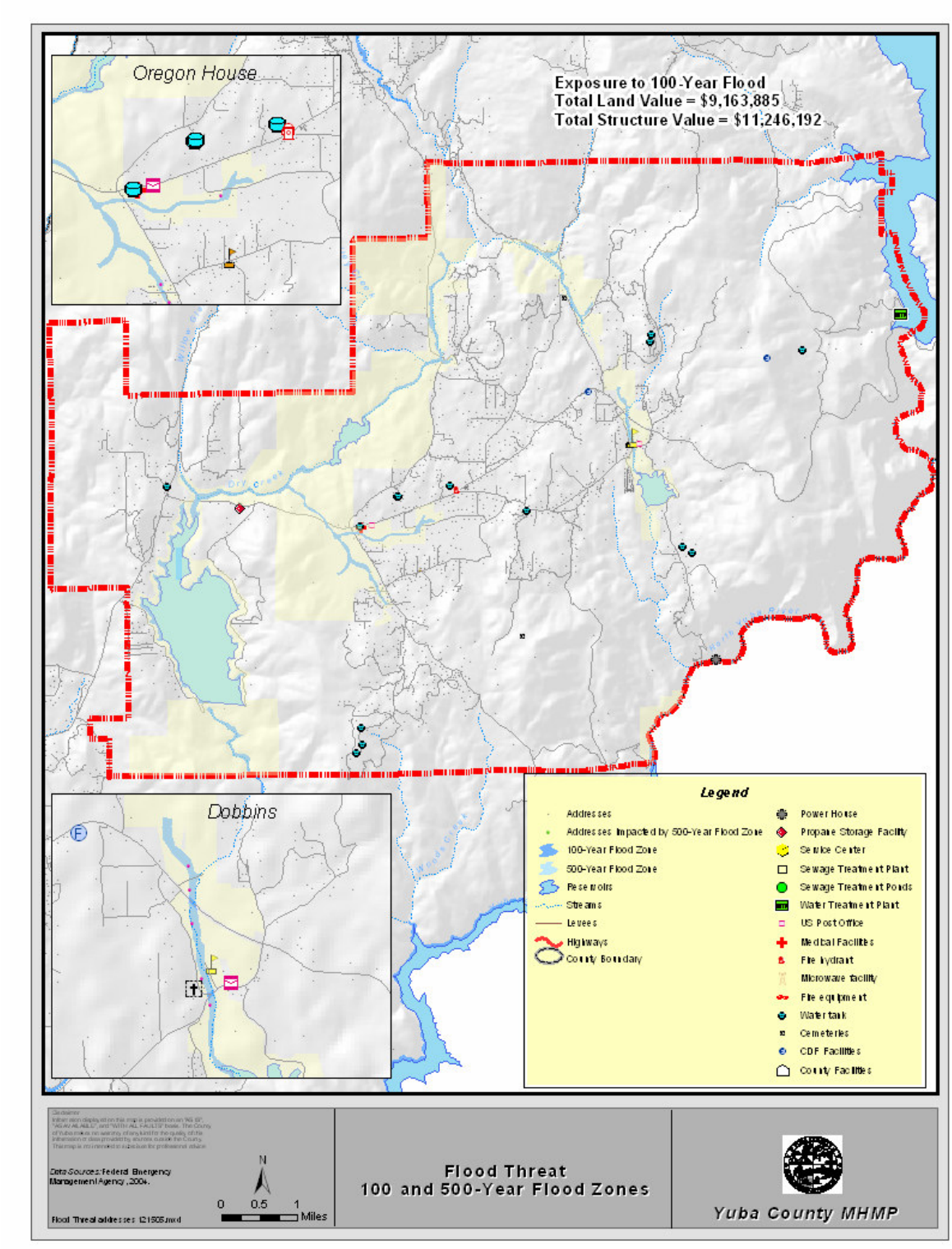
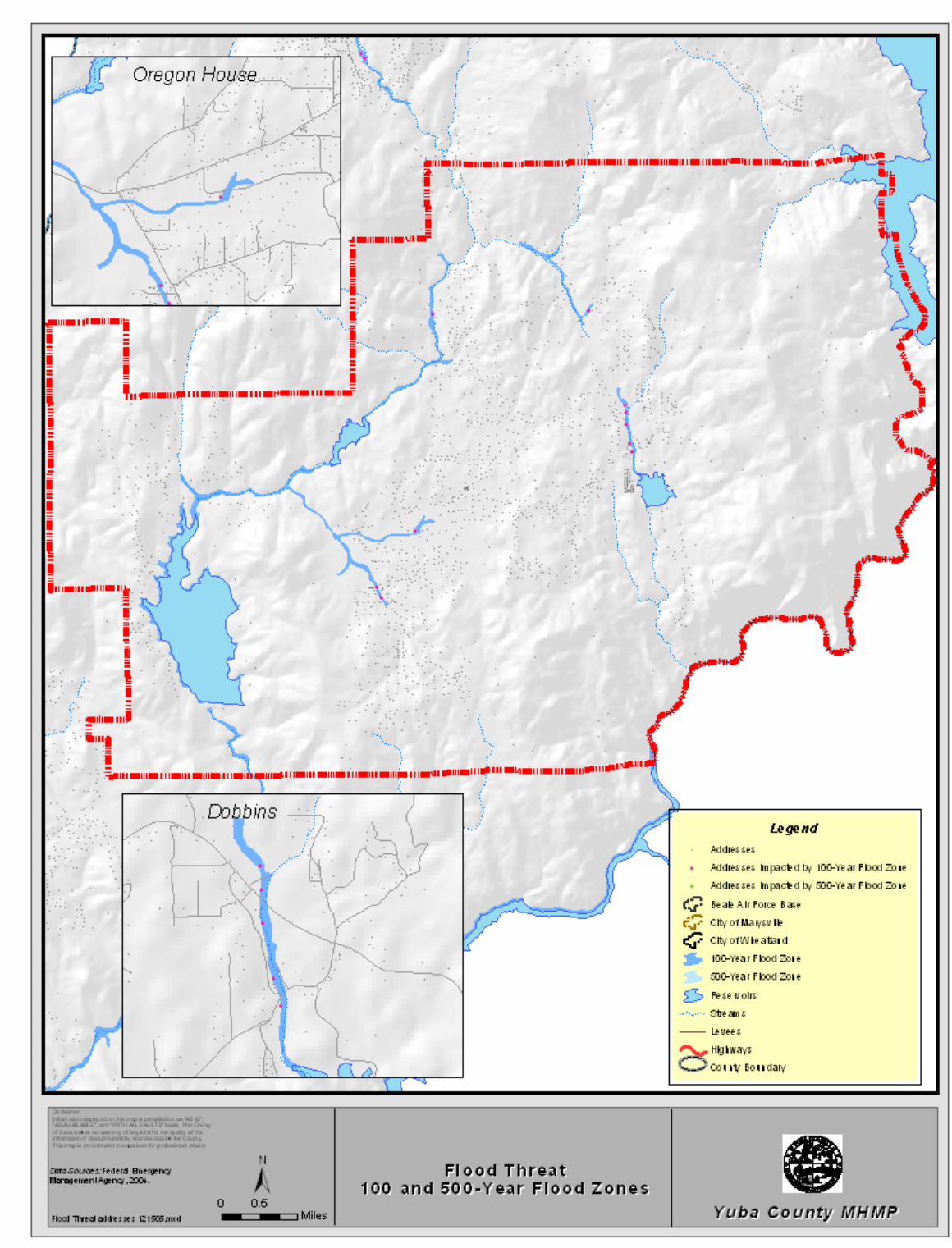


Figure 4–26 illuminates the ten residences in the DOHFPD impacted by the flood hazard. The residences are located along Dobbins Creek, Dry Creek, and draws. The total land value exposed to a 100–year flood event is $7,378,965. The total structure value exposed to a 100–yr flood event is $8,373,627. Ratios for the number of households with incomes less than $10,000 and the population over 64 years were estimated from the Census 2000 population estimates and applied to the impacted households determined from the Yuba County Assessors' parcel information. This information is presented in Table 4–19. The population directly impacted by flooding was estimated to be 23. Two of the ten households are estimated to have household incomes less than $10,000, and seven people were estimated to be over 64 years old.

Table 4–19 Flood Asset Vulnerability

Flood Hazard Vulnerability Dollar Exposure				
	Population affected	**Households with income below $10,000**	**Population over 64 years old**	**Total Exposure $**
100 year flood	23	2	7	$20,410,077
Total exposure based on structural improvement values per parcel				
Notes: Census blocks selected by intersecting flood zones onto Census 2000 blocks				
Source: Federal Emergency Management Agency, 2004				

Figure 4–27 DOHFPD Residential Flood Impact



4.2.3.7.2 Impact of Future Development

Health hazards and property damage may occur at residential dwellings and businesses in the affected areas if proper flood clean-up actions are not conducted immediately. Contamination due to flooded sewage systems may pose a risk to health and safety of persons in the affected areas.

4.2.3.8 Landslide

Description.
As noted earlier in the landslide hazard profile, the northern two–thirds of Yuba County jurisdiction's critical facilities are estimated to have a low vulnerability to landslides. However, areas continue to experience repeated localized incidences of this hazard. Three physical factors–slope steepness, bedrock, and history–are the minimum components necessary to assess landslide hazards. In addition, ground water and precipitation often play an important role in the occurrence of landslides, as well as vegetation, and slope orientation in the determination of localized landslide hazard threat.

4.2.3.8.1 Potential Loss Estimate

Landslide Impact.
Table 4–21 details the estimated landslide susceptibility to DOHFPD. It is estimated that the 2005 vulnerability as a result of clean–up activities to Yuba County roads total a minimum of $612,000 prior to the end of the 2005–2006 slide season. Table 4–20 outlines the estimated 2005–2006 clean-up costs to date.

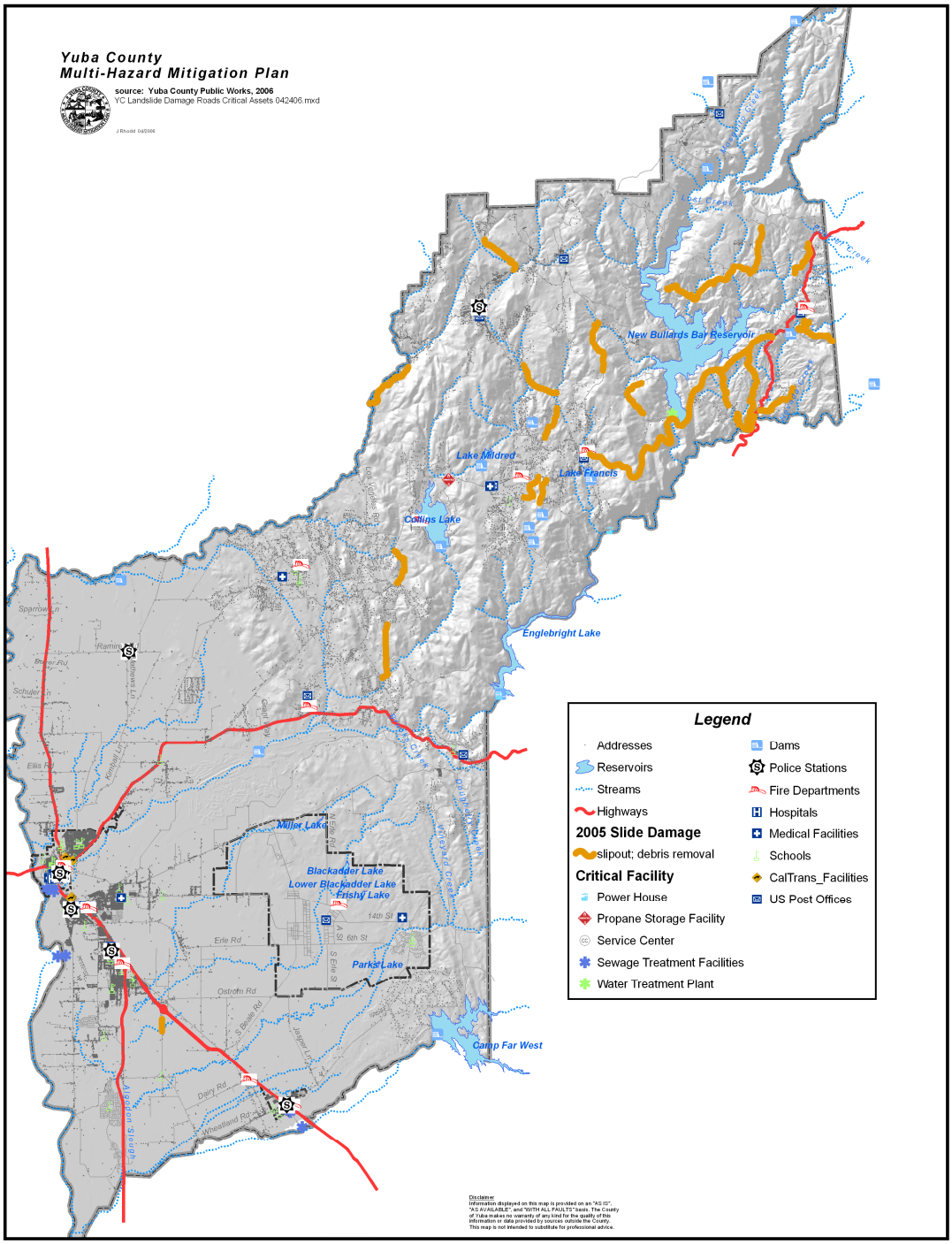
The December 2005 slide closures of Yuba County roads impacted over four percent of the Yuba County population. Of the 2,568 people directly impacted by the December 2005 landslide incidences, over 18 percent were over 64 years old.

Table 4–20 Landslide Hazard Vulnerability

Landslide Hazard Vulnerability Dollar Exposure			
	Population affected	**Population over 65 years**	**Total Exposure**
2005-2006 Landslide incidents	2,568	468	$612,000
Total exposure based on estimated road damage			
Notes: Census blocks selected by intersecting damage sites onto Census 2000 blocks.			
Source: Yuba County Public Works			

While DOHFPD critical assets and facilities other than roads are generally not damaged by landslides, access to these critical facilities can be comprised as can be seen in Figure 4–28. Road closures impact the response time of emergency vehicles and increase the likelihood of accidents.

Figure 4–28 Critical Infrastructure Landslide Vulnerability



4.2.3.8.2 Impact of Future Development

Future development in DOHFPD will have several effects on the threat of landslide to DOHFPD critical facilities and assets. Most likely is an increase in the potential for additional landslide sources in the remote or recreational areas of the county as increased traffic on rural roads cause increased soil erosion and new rural roads are cut into hillsides further destabilizing slopes.

4.2.3.9 Drought

Description.
Drought is a concern for Yuba County on three fronts: first, drought increases the fuel loads in the foothill area leading to an increase in fire hazards; secondly, is the impact that drought has on the jurisdictions' agricultural community; and thirdly, drought significantly impacts the potable water available to residential households.

While drought is defined as a period of abnormally dry weather sufficiently prolonged for the lack of water to cause serious hydrologic imbalance. It is easier to think of drought as a period of unusually persistent dry weather that endures long enough to cause serious problems such as crop damage or water supply shortages. Yuba County experiences extended periods every summer with little or no precipitation, a normal and expected condition. A drought can occur when the normal winter rain fails to materialize. A shortage of irrigation water stored at the beginning of the season in numerous reservoirs is serious, as normal summer precipitation does not provide a sufficient amount of agriculture's requirements. annually.
http://www.wrcc.dri.edu/narratives/CALIFORNIA.htm

Most of the water supply for crops comes from the Feather, Yuba, and Bear Rivers which are fed by rain or snow falling in the winter.

Drought is a concern for the jurisdiction by causing an increase in fire fuel loads leading to an increase in fire hazards. Drought patterns in California are often connected by meteorologists to the La Nina cold phase in the Pacific. In this pattern a strong high forms in the eastern pacific blocking the storm jet from coming south into California.

Drought conditions will continue to occur in the future as the local weather patterns are associated with associated with El Niño/La Nina conditions in the Pacific Ocean. While the El Niño conditions in the Pacific are associated with storm tracks that deliver strong winter storms repeatedly across northern California, La Nina conditions are associated with cold wet winters in the northwestern States. NOAA's Climate Prediction Center/NCEP December 8, 2005 prediction model supports either a continuation of El Niño/Southern Oscillation (ENSO) neutral conditions or the development of weak La Nina conditions. *Source: http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory/index.html, 2005*)

4.2.3.9.1 Potential Loss Estimate

Drought Impact.
The greatest impact of this hazard on DOHFPD is the increase in fuel load within the District. An increase in the fuel load could lead to greater and more devastating fires, increasing the damage from fire to the district. A decrease in the water supply could also exacerbate the situation by making less water available for firefighting.

4.2.3.9.2 Impact of Future Development

As DOHFPD continues to develop, the strain on the available water supply will increase. The impact of a drought will increase as the population grows.

4.2.3.10 Terrorism

Description

The property impacted by the Crime/Terrorism hazard is dependent upon the vector or destruction that is chosen. Arson, explosives, poisons, disease propagation are examples of terrorism mechanisms with significantly different critical asset and vulnerable population impacts. For example a disease vector would have little to no impact upon the jurisdiction's critical assets and, depending upon the disease chosen could have tremendous impact upon the local population. In contrast an explosive vector would have significant impact upon the critical asset focused upon and very little impact upon the jurisdiction's general population.

The loss of Yuba County facilities and assets, in some instances, can be far greater than the replacement cost of the facilities by themselves. For example, the loss of a dam from a terrorist event would be much greater than the replacement cost of the dam itself by putting thousands of people downstream at risk from the dam failure.

4.2.3.10.1 Potential Loss Estimate

Since the agents and impacts of terrorism vary wildly reader is referred to each particular hazard for more detailed information.
Dam failure–see section 4.2.3.6;
Wildfire–see section 4.2.3.1;
Man–made hazardous materials–see section 4.2.3.3;

4.2.3.10.2 Impact of Future Development

An increase of future development could increase the likelihood of a terrorist attack due to an increased impact with a concentrated population center. An increase in future development could also increase the likelihood of an environmental terrorist attack rationalized by the increased destruction of the environment.

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5 Mitigation Strategy

DMA 2000 Requirements – Mitigation Strategy
Requirement §201.6(c)(3): The plan **shall** include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs, and resources, and its ability to expand on and improve these existing tools.

The Dobbins-Oregon House Fire Protection District's Pre-Disaster Mitigation Plan has one overarching mission:

To protect people, property, and the environment from natural and man-made disasters;

that encompasses the overall goals, objectives, and actions that agreed upon by the DOHFPD hazard mitigation planning committee.

The following provides an overview of the steps involved in preparing the DOHFPD's mitigation strategy which consists of (1) assessing current capabilities; (2) identifying the hazards; (3) preparing a mitigation strategy which includes (a) developing mitigation goals and objectives to reduce vulnerability; (b) identifying and prioritize mitigation actions; and (c) preparing an implementation strategy

Since its inception in 1985, the Dobbins-Oregon House Volunteer Fire Company, Inc and in 1988, as the Dobbins-Oregon House Fire Protection District has been charged "to provide emergency service to the inhabitants & visitors of the Dobbins-Oregon House Fire Protection District". (Dobbins-Oregon House Fire Protection District Constitution, 2003)

5.1 Mitigation Goals to Reduce Vulnerabilities for this Jurisdiction

DMA 2000 Requirements – Mitigation Strategy
Local Hazard Mitigation Goals **Requirement §201.6(c)(3)(i)**: [The hazard mitigation strategy **shall** include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards
Element • Does the plan include a description of mitigation **goals** to reduce or avoid long-term vulnerabilities to the identified hazards? (**GOALS** are long-term; represent what the community wants to achieve, such as "eliminate flood damage"; and are based on the risk assessment findings.)

In compliance with the DMA 2000, described below are the requirements for local hazard mitigation goals.

> The information in the hazard vulnerability analysis and loss estimation information was used as a basis for developing mitigation goals and objectives. Mitigation goals are defined as general guidelines explaining what DOHFPD wants to achieve in terms of hazard and loss prevention. Goal statements are typically long–range, policy–oriented statements representing District–wide visions. Objectives are statements that detail how DOHFPD's goals will be achieved, and typically define strategies or implementation steps to attain identified goals. Other important inputs to the development of District–level goals and objectives include performing reviews of existing local plans, policy documents, and regulations for consistency and complementary goals. Stakeholder participation through monthly meetings, community outreach, and consultation with individuals possessing unique information to support the process of identifying hazard, risks, and mitigation goals was essential in the development of comprehensive goals for the District.

DOHFPD's Multi–Hazard Mitigation Plan mission is served by four goals that reduce the vulnerability of the District. DOHFPD's Plan goals guide the overall direction of mitigation activities within the District, which focus the District's overall mitigation program.

1) Preventing personal injury, loss of life, and damage to DOHFPD's inhabitants' property and the environment from natural and man–made hazards;
2) Enhancing the ability of DOHFPD to respond to the effects of hazards on people, District property, and the environment;
3) Promoting public awareness and understanding of natural and man–made hazards and the risk they present to quality of life and economic vitality;
4) Forming partnerships with private and public sector agencies, businesses, and organizations to further comprehensive planning and implementation of mitigation measures;
5) Encourage individual responsibility from DOHFPD residents for their exposure to natural and man–made hazards and the risk they present to life, property, and the environment.

5.1.1 Local Strategies to Reduce Vulnerabilities

1. Strategy
Provide emergency response preventing personal injury, loss of life, and damage to DOHFPD's inhabitants' property and the environment from natural and man–made hazards through its all volunteer fire department.

- Enforce existing local, state and federal fire safe codes and regulations
- Implementation of hazard mitigation programs and strategies
- Protection of life, property, and the environment before disasters occur

2. Strategy:
Enhance and improve District assets and support of identification of resources to address hazards, improve capabilities, and emergency response and recovery.

- Enhance and improve District response plans to all emergency situations
- GPS all critical assets and water sources
- Continue coordination with Fire Safe and all Stakeholders to collaborate in Fire Mitigation Planning and Strategies.

3. Strategy:
Provide Public Education Information Programs to encourage citizen and business participation in fire prevention and mitigation strategies, hazard areas to minimize losses.

- Fire Mitigation Outreach to the public, schools featuring exemplary projects, Fuel Reduction Projects and emergency preparedness.
- Ensure road access for emergency vehicles remain clear and free of vegetation.
- Ensure that all lifeline infrastructure are able to withstand hazard events or have contingency plans to quickly recover after a fire or disaster
- Develop disaster preparedness program among the general public and businesses, the resort industry, to address evacuations, preparedness and protection.

4. Strategy:
Identify fuel reduction projects for the public and private sector and collaboration with other stakeholders

- Fire Safe Chipper Program
- County Roads and Public lands fire mitigation projects
- Ensure road access for emergency vehicles remain clear and free of vegetation.
- Ensure that all lifeline infrastructure are able to withstand hazard events or have contingency plans to quickly recover after a fire or disaster

5. Strategy:
Provide support for essential critical facilities and infrastructure to provide emergency access and egress for the community for all hazards.

- Support Foothill Joint Powers Agency Dispatch as alternate system during hazard events**.**
- Enhance emergency communication systems to sustain damage and remain operational in power failure for redundancy in communications for remote areas.
- Back up generators for critical facilities to ensure critical services and emergency needs.
- Identify and support facilities to serve as shelters for emergencies to address mass shelters

6. Strategy:
Develop a training program of the highest standard to ensure that all involved personnel efficiently and effectively carry out their responsibilities to support emergency plan and compliant with NIMS and SEMS.

- Achieve a level of readiness for firefighters volunteers to support coordinated emergency response training and exercises.
- Ensure effective training and response for all residents and campground resorts in emergency response evacuations planning.
- Develop a community-based network that double-functions as the Community
- Emergency Response Team with DOHFPD and provides input into mitigation planning.

To implement the mitigation goals and objectives, section 5.2.2 summarizes the priority actions in three categories:
• Administrative actions not requiring major funding;
• Ongoing funded studies that need to be incorporated into future updates of this plan;
• Actions requiring funding.

5.2 Identification and Analysis of Mitigation Actions

DMA 2000 Requirements – Mitigation Strategy
Identification and Analysis of Mitigation Actions **Requirement §201.6(c)(3)(ii)**: [The mitigation strategy **shall** include a] section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.
Element A. Does the plan identify and analyze a **comprehensive range** of specific mitigation actions and projects for each hazard? B. Do the identified actions and projects address reducing the effects of hazards on **new** buildings and infrastructure? C. Do the identified actions and projects address reducing the effects of hazards on **existing** buildings and infrastructure?

In compliance with the DMA 2000, described below are the requirements for the identification and analysis of mitigation actions.

The goal of each strategy is reduction or prevention of damage from a hazard event. In order to determine their effectiveness in accomplishing this goal and prioritizing each strategy, a set of criteria was applied to each proposed strategy.

The Hazard Mitigation Planning Committee was divided into sub–groups by area of responsibility. Each sub–group then met and identified potential strategies for their specific type of specialty and began prioritizing each strategy taking the following considerations into account:

- Plan goals and objectives: How does the mitigation action address the goals and objectives of the plan? Does it reduce disaster damage?
- Equity: Does the strategy benefit most, if not all the communities within the District? Is there an equitable distribution of strategies by each participating agency?
- System–wide impacts: How does it affect DOHFPD as a whole?
- Ease of implementation: Can this action be easily implemented first? Does the District have the capability (funding, regulatory authority, staff) in place now to implement the strategy?

- Multi–objective strategies: Does this strategy achieve multiple goals?
- Time: Can this strategy be quickly accomplished compared to those that would take a long time to obtain the necessary approvals or funding?
- Post–disaster mitigation: Is this strategy more feasible in a post–disaster setting? Would the extent of damages, political will, and access to State and Federal mitigation funds dramatically alter the feasibility of implementation?

After each sub–group completed this process, the recommended strategies were then presented to and reviewed by the entire Planning Committee. The Planning Committee rated the strategies in order of overall priority based on the same considerations above and considered the STAPLEE criteria listed below.

- Social: Is the proposed strategy socially acceptable to the community? Are there equity issues involved that would mean that a segment of the community is treated unfairly?
- Technical: Will the proposed strategy work? Will it create more problems than it solves?
- Administrative: Can the community implement the strategy? Is there someone to coordinate and lead the effort?
- Political: Is the strategy politically acceptable? Is there public support both to implement and to maintain the project?
- Legal: is the community authorized to implement the proposed strategy? Is there a clear legal basis or precedent for this activity?
- Economic: What are the cost and benefits of this strategy? Does the cost seem reasonable for the size of the problem and the likely benefits?
- Environmental: How will the strategy impact the environment? Will the strategy need environmental regulatory approvals?

5.2.1 Range of Comprehensive Mitigation Actions

Mitigation actions for the district hazards are presented in the following tables. Each identified action is designed to protect both existing and future buildings within DOHFPD. The identified projects serve the entire district, and will protect DOHFPD and its residents.

5.2.2 Actions and Projects to Reduce Vulnerabilities of Existing and Future Buildings and Infrastructure

Table 5–1 Mitigation Actions

Action Item	Associated Strategy	Background Statement	Priority	Estimated Cost	Benefits	Funding Source
Water Tank Installation	1	10,000 gal water tank projects for increased fire protection in strategic DOHFPD locations	High	$40,000	Increased fire protection, and reduced fire insurance rates for local inhabitants	DHS-FEMA, USDA, Fire Safe, High Sierra RC&D, Assistance to Firefighter Grant
Fire Hydrants System	1	Water sources–hydrant system from Bullards Bar to Marysville Rd to Willow Glen Rd to Marysville Rd to Loma Rica Rd Marysville Rd.	High	$3,000,000	Supply water for fire suppression Improve fire suppression capabilities, reduce losses due to fire reduction of fire insurance rates by improved ISO ratings.	County mitigation fees, CWPP grants, & Fire Safe grants, DHS-FEMA, Assistance to Firefighter Grant
Improvement of seasonal hydrant and draft sites	1	Develop & improve seasonal hydrant & draft sites at irrigation ditches at strategic points	High	$1,000,000	Reduced fire loss through water sources drafting from creeks & irrigation ditches will reduce fire insurance rates in adjacent areas	DHS-FEMA, Fire Safe Council grants, Prop 40, USDA, Assistance to Firefighter Grant
Laptop Computers for every command vehicle in DOHFPD	1	Purchase laptop computers for use in command vehicles in DOHFPD	Low	$100,000	Availability of pre-plan at incident; water sources, map books, shelter-in-place locations. BCA pending decision to move forward	ESRI, DHS-FEMA, Assistance to Firefighter Grant

Action Item	Associated Goal	Background Statement	Priority	Estimated Cost	Benefits	Funding Source
County-wide fire planner	2	Continue participation and support of a county-wide fire protection planner for uniform implementation of fire planning and mitigation projects	High	$139,000 - $150,000 annually	One consolidated county fire planner to administer fire code consistent with regulation for enforcement	Fire Safe Council, Yuba County
Water Source Signage	2	Water source signage for fire suppression and GPS of water tanks and sources	High	$100,000	Ease of water source location and identification under less than optimal conditions	DHS-FEMA, BLM, CDF, Assistance to Firefighter Grant
Back up generators	2	Install generators with fixed, hard wires with approved electrical switches at fire stations and community centers, and schools. Some agencies use portable generators and do not connect them to code	High	$200,000	Fire, flood, & snow disrupt power & phone lines for more that a week at times Each agency would be responsible with a generator agency providing oversight	DHS- FEMA , Utility Company grants, & County mitigation fees
Fire prevention public education and outreach information and participation in fire mitigation practices	3	Fire prevention is the key to fire reduction through community education and individual involvement in implementation of fire mitigation measures and activities	High	$50,000 - $100,000	An educated public is more likely to practice fire safe measures, decreasing the potential cost of fire	DHS-FEMA, HMGP, Yuba Fire Safe

Action Item	Associated Goal	Background Statement	Priority	Estimated Cost	Benefits	Funding Source
Private business education program	3	Expand information & education for the development industry; especially developers, realtors, contractors, home builders, and building inspectors on methods and building construction to improve structural survivability. Programs and workshops need to focus on state & local building standards, as well as the State Fire Marshall WUI Standards (law effective January 2008), on the cause of home ignition and susceptibility during a fire event. Home site location, safe access, signage, water availability, and the role of vegetation and landscaping in a fire event should be addressed	High	$100,000		DHS-FEMA, HMGP, Yuba Fire Safe
Development of community-based volunteer inspector program	3	Develop a community based fire protection volunteer inspector program to inspect compliance with required fuel hazard reduction zones & Public Resources 4291 guidelines	Moderate	$100,000		DHS- FEMA
Fuels Reduction Projects	4	Fuel reduction through mechanical treatment	High	$75,000 - $150,000	Reduction in damage from wildfire	FEMA-HMGP, Fire Safe, Prop 40
Evacuation Planning and Exercise	5	Evacuation Planning and Exercise for potential emergency is essential for emergency response and pre-disaster planning	High	$50,000	Mitigation of loss of life	DHS-FEMA, Fire, HMGP, Fire Safe, private

Action Item	Associated Goal	Background Statement	Priority	Estimated Cost	Benefits	Funding Source
Evacuation Routes	5	Improve evacuation routes in areas with limited access and egress routes for identified flood & fire evacuation routes	High	$300,000	Identification of evacuation routes prior to incident to improve conditions and identify alternate routes	DHS-FEMA. CDF, private grant funds
Wildland Fire Training	6	A 24–hour County–wide wildland training/drill for all fire departments to cover firefighter safety, basic skills testing, wildland–urban interface fire fighting, equipment inspection, ICS/NIMS/SEMS.	High	$50 per individual	Annual standardized training of all departments together with three objectives: firefighter safety; working together as a team county–wide; equipment readiness inspection. Training burn area may rid area of invasive species	DHS-FEMA, HMGP, Fire Safe, CDF, Assistance to Firefighter Grant

5.3 Implementation of Mitigation Actions

In compliance with the DMA 2000, described below are the requirements for the implementation of mitigation actions.

Mitigation actions were determined through input from stakeholders, citizens, and elected officials through monthly stakeholder meetings, weekly individual meetings with first responders, county staff, emergency planners, and other individuals with an in–depth understanding of the District's hazards and capabilities.

5.3.1 Prioritization of Mitigation Actions

The mitigation actions were presented to sub–groups for additional input and their recommendations. After each sub–group completed this process, the recommended strategies were then presented to and reviewed by the entire Planning Committee. The Planning Committee rated the strategies in order of overall priority based on the extent to which benefits are maximized according to a cost–benefit review, their associated costs and considered the STAPLEE criteria previously listed.

Those receiving the highest number of votes were listed as "High Priority". The remaining strategies were identified as less important than the High Priority strategies for consideration and implementation. The "Moderate and Low Priority" rated strategies are suited to serve the district's needs and may be considered in the future, should the opportunity arise and funding becomes available.

The Planning Committee acknowledges that these strategies have not gone through a rigorous and detailed environmental, historic, or benefit to cost analyses at this time. Although such considerations played a role in the prioritization of these strategies, largely through the development of the probable scenarios, further analyses will be undertaken before these strategies become scheduled for implementation.

SEPA, Historic Preservation Act, and benefit to cost requirements and guidance will be met by DOHFPD.

Some examples of mitigation projects appropriate for DOHFPD include:

- Retrofitting structures and facilities to minimize damages from fire, floods, earthquakes, high winds, or other natural hazards,
- Development and initial implementation of vegetative management programs
- Minor flood control projects that are not duplicative of the flood prevention activities of other Federal agencies,
- Localized fire control projects, such as fuel load reduction and fire breaks, that are designed specifically to protect critical facilities,
- Post–disaster building code related activities that support building code officials during the reconstruction process.

5.3.2 Mitigation Implementation

DMA 2000 Requirements – Mitigation Strategy
Implementation of Mitigation Actions **Requirement §201.6(c)(3)(ii)**: [The mitigation strategy section **shall** include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdiction. Prioritization **shall** include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and other associated costs.
Element A. Does the mitigation strategy include how the actions are **prioritized**? (For example, is there discussion of the process and criteria used? B. Does the mitigation strategy address how the actions will be **implemented and administered**? (For example, does it identify the responsible department, existing and potential resources, and timeframe?) B1. Does the mitigation strategy address continued compliance with the NFIP? C. Does the prioritization process include an emphasis on the use of a **cost-benefit review** (see page 3-36 of Multi-Hazard Mitigation Planning Guidance) to maximize benefits? C1. Does the mitigation strategy emphasize cost-effective and technically feasible mitigation actions?

Projects will be put forward in the grant application process in order of priority. The first year only High priority projects will be put forward. The second year High priority projects that were not funded will be reviewed for appropriateness supplemented with additional Moderate priority projects and put forward in the grant application process. Each year during the review process the priority of projects will also be reviewed to determine their relevance and importance.

The responsible office/person is identified Tables 5.1 and 5.2 in sections 5.2.2 and 5.2.3. Also identified are the offices responsible for the maintenance and the schedule for the project.

5.3.3 Mitigation Cost-Benefit Review

Cost benefit data are missing for most of the current mitigation projects. Instead a qualitative assessment of the comparative benefits was used to identify actions/projects with the greatest benefits to the District during the prioritization process.

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6 Plan Maintenance Process

DOHFPD will be responsible for monitoring the plan annually for updates to jurisdictional goals, objectives, and action items. If needed, these will be coordinated through the DOHFPD Hazard Mitigation Steering Committee to integrate these updates into the Plan. The Chairman of the Hazard Mitigation Steering Committee will be responsible for monitoring the overall Plan for updates on an annual basis. The Chairman will reconvene the Steering Committee as needed to make these updates.

The Plan will be evaluated by Dobbins/Oregon House Fire Protection District at least every five years to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The Plan will also be re-evaluated by DOHFPD representatives based upon the initial Plan criteria used to draft goals, objectives, and action items for this Plan.

Action items will be reviewed to determine their relevance to changing situations in the District, Yuba County Operational Area, as well as changes in State or Federal regulations and policy. DOHFPD Committee Members will conduct an assessment of each portion of the Plan to determine if this information should be updated or modified, given any new available data.

DOHFPD committee members will be the responsible group for updates to the Plan. All participants will be responsible to provide the Committee Chairperson with department-level updates to the Plan when/if necessary as described above. Every five years the updated plan will be submitted to the State of California and FEMA for review.

DOHFPD will have the opportunity to implement recommended action items through existing programs and procedures that are deemed appropriate. Upon adoption of the Plan, it can be used as a baseline of information on the hazards that impact the District.

6.1 Monitoring, Evaluating, and Updating the Plan

DMA 2000 Requirements – Plan Maintenance Process
Monitoring, Evaluating, and Updating the Plan **Requirement §201.6(c)(4)(i)**: [The plan maintenance process **shall** include a] section describing the method and schedule of monitoring, evaluation, and updating the mitigation plan within a five-year cycle
Element A. Does the plan describe the method and schedule for **monitoring** the plan? (For example, does it identify the party responsible for monitoring and include a schedule for reports, site visits., phone calls, and meetings?) B. Does the plan describe the method and schedule for **evaluating** the plan? (For example, doe sit identify the party responsible for evaluating the plan and include the criteria used to evaluate the plan?) C. Does the plan describe the method and schedule for **updating** the plan within the five year cycle?

This section of the Plan describes the formal process that will ensure that the Plan remains an active and relevant document. The plan maintenance process includes a schedule for monitoring and evaluating the Plan annually and producing a plan revision every five years.

This section describes how the Dobbin-Oregon House Fire Protection District will integrate public participation throughout the plan maintenance process. Finally, this section includes an explanation of how jurisdictions intend to make considerations for the mitigation strategies outlined in this Plan into existing planning mechanisms.

- Dobbin-Oregon House Fire Protection District will be responsible for monitoring the plan annually for updates to jurisdictional goals, objectives, and action items. If needed, these will be coordinated through the Dobbin-Oregon House Fire Protection District's Hazard Mitigation Planning Committee to integrate these updates into the Plan. The Chairman of the Hazard Mitigation Planning Committee will be responsible for monitoring the overall Plan for updates on an annual basis. The Chairman will reconvene the Planning Committee as needed to make these updates.
- The Plan will be evaluated by Dobbin-Oregon House Fire Protection District annually to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities. The Plan will also be re-evaluated by Dobbin-Oregon House Fire Protection District representative based upon the initial Plan criteria used to draft goals, objectives, and action items for this Plan.
- Action items will be reviewed to determine their relevance to changing situations in the Dobbin-Oregon House Fire Protection District, Yuba County Operational Area, as well as changes in State or Federal regulations and policy. Dobbin-Oregon House Fire Protection District Committee Members will conduct an assessment of each portion of the Plan to determine if this information should be updated or modified, given any new available data.
- Dobbin-Oregon House Fire Protection District committee members will be the responsible group for updates to the Plan. All participants will be responsible to provide the Committee Chairperson with department-level updates to the Plan when/if necessary as described above. Every five years the updated plan will be submitted to the State of California and FEMA for review.
- Dobbin-Oregon House Fire Protection District will have the opportunity to implement recommended action items through existing programs and procedures that are deemed appropriate.

6.2 Incorporation into Existing Planning Mechanisms

DMA 2000 Requirements – Plan Maintenance Process
Incorporation into Existing Planning Mechanisms **Requirement §201.6(c)(4)(ii)**: [The plan **shall** include a] process by which local governments incorporate the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans, when appropriate.
Element A. Does the plan identify other local planning mechanisms available for incorporating the requirements of the local mitigation plan? B. Does the plan include a process by which the local government will incorporate the requirements in other plans, when appropriate?

DOHFPD utilizes Yuba County's current comprehensive land use planning, capital improvement planning, and building codes to guide and control development in the District. After DOHFPD and Yuba County officially adopts their Multi–Hazard Mitigation Plans, these existing mechanisms will have hazard mitigation strategies integrated into them.

After adoption of the Mitigation Plan, DOHFPD will require the District to address hazards in the comprehensive plans and land use regulations. Specifically, one of the goals in the Mitigation Plan directs the District to protect life and property from natural disasters and manmade hazards. The District will avail itself of the County's comprehensive plans and land use policies, and employ technical assistance in implementing these requirements.

Yuba County Building Department is responsible for administering the building codes within the District. After adoption of the Plan, the Building Department will work with the State Building Code Office to ensure Yuba County adopts and enforces the minimum standards established in the new State Building Code. This will ensure that life and safety criteria are met in the District for new construction.

Within six months of the formal adoption of the Mitigation Plan, the policies listed above will be incorporated into the process of existing planning mechanisms.

6.2.1 Incorporating the LHMP (Identifying other Local Planning Mechanisms)

Local jurisdictions within the DOHFPD have varying capabilities and planning mechanisms. Planning mechanisms include plans, codes, ordinances, regulations, guidelines, and programs as follows:

Plans

- Comprehensive plans,
- Capital improvement plans,
- Redevelopment plans,
- Area plans,
- Watershed management plans,
- Post–disaster recovery plans,
- Comprehensive emergency management plans,
- Regional development plans, and special functional plans such as:
    - Long–range recreation facilities plan;
    - School sitting plan;
    - Open space plan;
    - Transportation improvement/retrofit programs; and
    - Water and sewer construction/retrofit programs.

Codes, Ordinances, Regulations, and Guidelines

- Building codes;
- Land development codes;
- Zoning ordinance;
- Historic preservation ordinance;
- Floodplain ordinance;
- Landscape ordinance;
- Subdivision regulations; and
- Development guidelines.

Programs

- Conservation and restoration program;
- Local and/regional emergency evacuation program; and
- Historic preservation district program.

6.2.2 Incorporating the LHMP (Process for Incorporating in Other Local Plans)

After adoption of the DOHFPD Multi–Hazard Mitigation Plan, DOHFPD will work with the BVID, YCWA, Fire Protection Districts, and other governing bodies to identify mitigation strategies that can be implemented through their comprehensive plans and land use policies. DOHFPD will provide technical assistance for the implementation of fire mitigation strategies, zoning activities, and building code enforcement as it applies to the district.

The Plan evaluation will serve to determine the effectiveness of implementing mitigation actions through established planning mechanisms.

6.3 Continued Public Involvement

DMA 2000 Requirements – Plan Maintenance Process
Continued Public Involvement **Requirement §201.6(c)(4)(iii)**: [The plan maintenance process **shall** include a] discussion on how the community will continue public participation in the plan maintenance process.
Element A. Does the plan explain how **continued public participation** will be obtained? (For example, will there be public notices, an on-going mitigation plan committee, or annual review meetings with stakeholders?)

In compliance with the DMA 2000, described below are the requirements to continue the plan maintenance process through continued public involvement.

- The Dobbins/Oregon House Fire Protection District is dedicated to involving the public directly in review and updates of the Plan.
- A representative from the Planning Committee will be responsible for monitoring, evaluating, and updating the Plan as described above. During all phases of plan maintenance the public will have the opportunity to provide feedback.
- A copy of the Plan will be publicized and available for review. In addition, copies of the plan will be catalogued and kept at appropriate locations in the District. The existence and location of these copies will also be posted at the District office. The site will contain contact information for the DOHFPD Hazard Mitigation Planning Committee to which people can direct their comments and concerns.

- A press release requesting public comments will also be issued after each evaluation or when deemed necessary by the Planning Committee. The press release will direct people to the appropriate location where the public can review proposed updated versions of the Plan. This will provide the public an outlet for which they can express their concerns, opinions, or ideas about any updates/changes that are proposed to the Plan. Committee members will assure the resources are available to publicize the press releases and maintain public involvement through District and County of Yuba meetings and other appropriate means.

6.4 Jurisdiction's Use/Awareness of Environmental Protection & Historic Preservation Laws (State & Federal)

All proposed plans will be prepared consistent with CEQA Guidelines Section 15063, to determine if the projects, as proposed, may have a significant effect upon the environment. Based upon findings, where there is no significant environmental impact, plans will be implemented as originally proposed. Where a project shows that there is the possibility of physical impact, further evaluation must be completed to determine the significance of that impact. If there are one or more "Potentially Significant Impact" entries when the evaluation is completed, an EIR is required.

6.4.1 Federal

"The Federal Civil Defense Act of 1950"
Public Law 96-342, "The Improved Civil Defense Act of 1980"
Public Law 91-606, "Disaster Relief Act"
Public Law 93-288, "The Robert T. Stafford Disaster Relief Act of 1974", as amended Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.
Public Law 106-390, enacted by Section 104 of the "The Disaster Mitigation Act of 2000"
Interim Final Rule as published in the February 26, 2002, in the Code of Federal Regulations, at 44 CFR Part 201, and any subsequent revisions to the Rule.
Federal Endangered Species Act of 1973 (FESA) (50 CFR 17) provides protection and requires definition of critical habitat and development of recovery plans for plant and animal species in danger of extinction. The plant and animal species protected under FESA are listed as endangered, threatened, or, in the case of plants, rare. FESA requires Federal agencies to make a finding on all Federal actions that might jeopardize the continued existence of any listed species or any species officially proposed to be listed under the FESA.

DEPARTMENT OF THE INTERIOR

Bureau of Reclamation

Lower Yuba River Accord, Yuba County, CA

AGENCY: Bureau of Reclamation, Interior.

ACTION: Notice of Intent to prepare an Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) and to hold public scoping meetings.

SUMMARY: Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, the Bureau of Reclamation (Reclamation) proposes to participate and serve as the lead agency under NEPA in the preparation of a joint EIS/EIR on the Lower Yuba River Accord (Yuba Accord). The Yuba County Water Agency (YCWA), a local public water agency, is proposing the project and will serve as the lead agency under the California Environmental Quality Act (CEQA). The purpose of the Yuba Accord is to resolve instream flow issues associated with operation of the Yuba River Development Project (Yuba Project) in a way that protects and enhances lower Yuba River fisheries and local water-supply reliability, while providing revenues for local flood-control and water-supply projects, water for the CALFED Program to use for protection and restoration of Sacramento-San Joaquin Delta (Delta) fisheries, and improvements in state-wide water supply management, including supplemental water for the Central Valley Project (CVP) and the State Water Project (SWP).

This notice is published in accordance with NEPA regulations found in 40 CFR 1501.7. The purpose of this notice is to obtain suggestions and information from other agencies and the public on the scope of issues to be addressed in the EIS/EIR. A similar notice is being published by YCWA in accordance with CEQA. Comments and participation in the scoping process are encouraged.

DATES: Four public scoping meetings will be held on the following dates:

- July 19, 2005–1 p.m., Sacramento, CA
- July 19, 2005–6:30 p.m., Sacramento, CA
- July 20, 2005–1 p.m., Marysville, CA
- July 20, 2005–6:30 p.m., Marysville, CA

ADDRESSES: The public scoping meeting locations are:

- Sacramento—Doubletree Hotel, 2001 Point West Way, Sacramento, CA
- Marysville—Yuba County Government Center, 915 8th Street, Marysville, CA

Written comments on the scope of the Yuba Accord or issues to be addressed in the EIR/EIS must be received no later than August 4, 2005. Send written comments to Mary Grim, Bureau of Reclamation, 2800 Cottage Way, MP–400, Sacramento, CA 95825. Grim, Bureau of Reclamation, 2800 Cottage Way, MP–400, Sacramento, CA 95825.

FOR FURTHER INFORMATION CONTACT: Mary Grim, Environmental Specialist, Reclamation, at the above address; telephone number 916–978–5204.

SUPPLEMENTARY INFORMATION: YCWA is a public agency created and existing pursuant to the provisions of the Yuba County Water Agency Act of 1959. YCWA owns and operates the Yuba Project, which includes New Bullards Bar Dam and Reservoir on the North Yuba River. YCWA operates the Yuba Project in accordance with a Federal Energy Regulatory Commission License, flood control rules promulgated by the U.S. Army Corps of Engineers, state water rights permit terms, and an agreement with the California Department of Fish and Game (CDFG) for instream flows.

In March of 1991, CDFG released a "Lower Yuba River Fisheries Management Plan", which contained recommendations regarding fishery protection and enhancement measures in the lower 24-mile section of the Yuba River. CDFG requested that the State Water Resources Control Board (SWRCB) consider modifying YCWA's water rights permits to implement the recommendations contained in CDFG's Plan. Based on CDFG's request, and to address various allegations raised by a coalition of non-governmental fisheries organizations (NGOs) against several water agencies in 1989 filings, the SWRCB initiated a proceeding to consider fishery protection and water right issues on the lower Yuba River in early 1992.

The SWRCB held hearings on these issues in 1992 and 2000. The SWRCB adopted Water Rights Decision 1644 (D–1644) on March 1, 2001. D–1644 established new instream flow requirements for the lower Yuba River in YCWA's water right permits, required YCWA to take actions to address potential concerns regarding water temperatures for Chinook salmon and steelhead, and required studies and consultation on various other issues.

YCWA, several local water districts in Yuba County, and a collective of fisheries NGOs all initiated legal actions challenging D–1644 on a variety of issues. After considering some new evidence, the court remanded D–1644 to the SWRCB for reconsideration in light of the new evidence. After a brief hearing in 2003, the SWRCB issued Revised Water Rights Decision 1644 (RD–1644), which contains only minor changes from D–1644. The same parties that had challenged D–1644 then initiated new legal proceedings challenging RD–1644 on most of the same issues.

Since RD–1644 was issued, the parties to the litigation and the state and Federal fisheries agencies have been engaged in a collaborative, interest-based initiative to try to resolve the flow and other fisheries issues on the lower Yuba River. The potential settlement has become known as the Yuba Accord. If implemented, the Yuba Accord would resolve issues associated with operation of the Yuba Project in a way that would protect and enhance lower Yuba River fisheries, protect local water supply reliability, provide revenues for local flood-control and water-supply projects, provide water for protection and restoration of Delta fisheries, and increase state-wide water supplies.

The Yuba Accord would include three major elements:

- The first element would be an agreement (Yuba Accord Fisheries Agreement) between YCWA, CDFG and the collective of NGOs, with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration, National Marine Fisheries Service supporting the agreement. Under the Yuba Accord Fisheries Agreement, YCWA would revise the operation of the Yuba Project to provide higher flows in the lower Yuba River to protect and enhance fisheries and to increase downstream water supplies.

6.4.2 State

6.4.2.1 California Government Code, Section 3100, Title 1, Division 4, Chapter 4.

States those public employees are disaster service workers, subject to such disaster service activities as may be assigned to them by their superiors or by law. The term "public employees" includes all persons employed by the state or any county, city, city and county, state agency or public district, excluding aliens legally employed. The law applies when:

- A local emergency has been proclaimed.
- A state of emergency has been proclaimed.
- A federal disaster declaration has been made.

Provides the basic authorities for conducting emergency operations following a proclamation of Local Emergency, State of Emergency, or State of War Emergency by the Governor and/or appropriate local authorities, consistent with the provisions of this Act.

6.4.2.2 The California Emergency Plan

Promulgated by the Governor, and published in accordance with the Act and provides overall statewide authorities and responsibilities, and describes the functions and operations of government at all levels during extraordinary emergencies, including wartime. Section 8568 of the Act states, in part, that "...the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." Local emergency plans are, therefore, considered to be extensions of the California Emergency Plan.

6.4.2.3 California Civil Code, Chapter 9, Section 1799.102

Provides for "Good Samaritan Liability" for those providing emergency care at the scene of an emergency: "No person, who, in good faith and not for compensation, renders emergency care at the scene of an emergency, shall be liable for any civil damages resulting from any act or omission. The scene of an emergency shall not include emergency departments and other places where medical care is usually offered."

6.4.2.4 State of California Multi-Hazard Mitigation Plan, July 1, 2004

California State Law

Power of County in regards to flood control, water code:

§ 8100. Under such limitations and restrictions as are prescribed bylaw, and in addition to jurisdiction and powers otherwise conferred, the boards of supervisors, in their respective counties, may appropriate and expend money from the general fund of the county for any of the following purposes in connection with streams or rivers in the county: The construction of works, improvements, levees or check dams to prevent overflow and flooding.

a) The protection and reforestation of watersheds.
b) The conservation of the flood waters.
c) The making of all surveys, maps and plats necessary to carry out any work, construction or improvement authorized by this article.

d) The carrying out of any work, construction or improvement authorized by this article outside the county if the rivers or streams affected flow in or through more than one county.

Costa-Machado Water Act of 2000; "Safe Drinking Water, Clean Water. Watershed Protection and Flood Protection Act"

Fish and Game Code Section 1600-1616

1602. (a) An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, unless all of the following occur:

(1) The department receives written notification regarding the activity in the manner prescribed by the department. The notification shall include, but is not limited to, all of the following:

(A) A detailed description of the project's location and a map.

(B) The name, if any, of the river, stream, or lake affected.

(C) A detailed project description, including, but not limited to, construction plans and drawings, if applicable.

(D) A copy of any document prepared pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

(E) A copy of any other applicable local, state, or federal permit or agreement already issued.

(F) Any other information required by the department.

(2) The department determines the notification is complete in accordance with Chapter 4.5 (commencing with Section 65920) of Division 1 of Title 7 of the Government Code, irrespective of whether the activity constitutes a development project for the purposes of that chapter.

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