



1 INTRODUCTION

1.1 Purpose

Butte County and seven other jurisdictions prepared this Local Hazard Mitigation Plan (LHMP) update to the 2007 Federal Emergency Management Agency (FEMA) approved Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan. The purpose of this plan update is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events. This plan demonstrates the community's commitment to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources. This plan was also developed, among other things, to ensure Butte County and participating jurisdictions' continued eligibility for certain federal disaster assistance: specifically, the FEMA Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation Program (PDM), and the Flood Mitigation Assistance Program (FMA). Completion also earns credits under the National Flood Insurance Program's Community Rating System (CRS) which provides for lower flood insurance premiums in CRS communities.

1.2 Background and Scope

Each year in the United States, natural disasters take the lives of hundreds of people and injure thousands more. Nationwide, taxpayers pay billions of dollars annually to help communities, organizations, businesses, and individuals recover from disasters. These monies only partially reflect the true cost of disasters, because additional expenses incurred by insurance companies and nongovernmental organizations are not reimbursed by tax dollars. Many natural disasters are predictable, and much of the damage caused by these events can be reduced or even eliminated.

Hazard mitigation is defined by FEMA as "any sustained action taken to reduce or eliminate long-term risk to human life and property from a hazard event." The results of a three-year, congressionally mandated independent study to assess future savings from mitigation activities provides evidence that mitigation activities are highly cost-effective. On average, each dollar spent on mitigation saves society an average of \$4 in avoided future losses in addition to saving lives and preventing injuries (National Institute of Building Science Multi-Hazard Mitigation Council 2005).

Hazard mitigation planning is the process through which hazards are identified, likely impacts determined, mitigation goals set, and appropriate mitigation strategies determined, prioritized, and implemented. This plan documents Butte County's hazard mitigation planning process and identifies relevant hazards and vulnerabilities and strategies the County and participating jurisdictions will use to decrease vulnerability and increase resiliency and sustainability in the community.

The Butte County Local Hazard Mitigation Plan (LHMP) update is a multi-jurisdictional plan that geographically covers the entire area within Butte County's jurisdictional boundaries (hereinafter referred to as the planning area). The following jurisdictions participated in the planning process and are seeking FEMA approval of the LHMP plan update:

- Butte County*
- City of Biggs*
- City of Chico*
- City of Gridley*
- City of Oroville*
- Town of Paradise*
- Paradise Irrigation District
- Thermalito Water and Sewer District

* Participated in 2007 Plan

No jurisdictions that were approved for the 2007 plan have dropped out of this plan update.

This plan update was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 (Public Law 106-390) and the implementing regulations set forth by the Interim Final Rule published in the Federal Register on February 26, 2002, (44 CFR §201.6) and finalized on October 31, 2007. (Hereafter, these requirements and regulations will be referred to collectively as the Disaster Mitigation Act (DMA) or DMA 2000.) This planning effort also follows FEMA's 2008 Plan Preparation Guidance. While DMA 2000 emphasized the need for mitigation plans and more coordinated mitigation planning and implementation efforts, the regulations established the requirements that local hazard mitigation plans must meet in order for a local jurisdiction to be eligible for certain federal disaster assistance and hazard mitigation funding under the Robert T. Stafford Disaster Relief and Emergency Act (Public Law 93-288). Because the Butte County Planning Area is subject to many kinds of hazards, access to these programs is vital.

Information in this plan will be used to help guide and coordinate mitigation activities and decisions for local land use policy in the future. Proactive mitigation planning will help reduce the cost of disaster response and recovery to communities and their residents by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruptions. The planning area has been affected by hazards in the past and is thus committed to reducing future impacts from hazard events and maintaining eligibility for mitigation-related federal funding.

1.3 Community Profile

Butte County lies in north central California at the northern end of the Sacramento Valley, approximately 150 miles northeast of San Francisco and 70 miles north of Sacramento. State Highways 70 and 99, which extend in a north-south direction through the County, define the

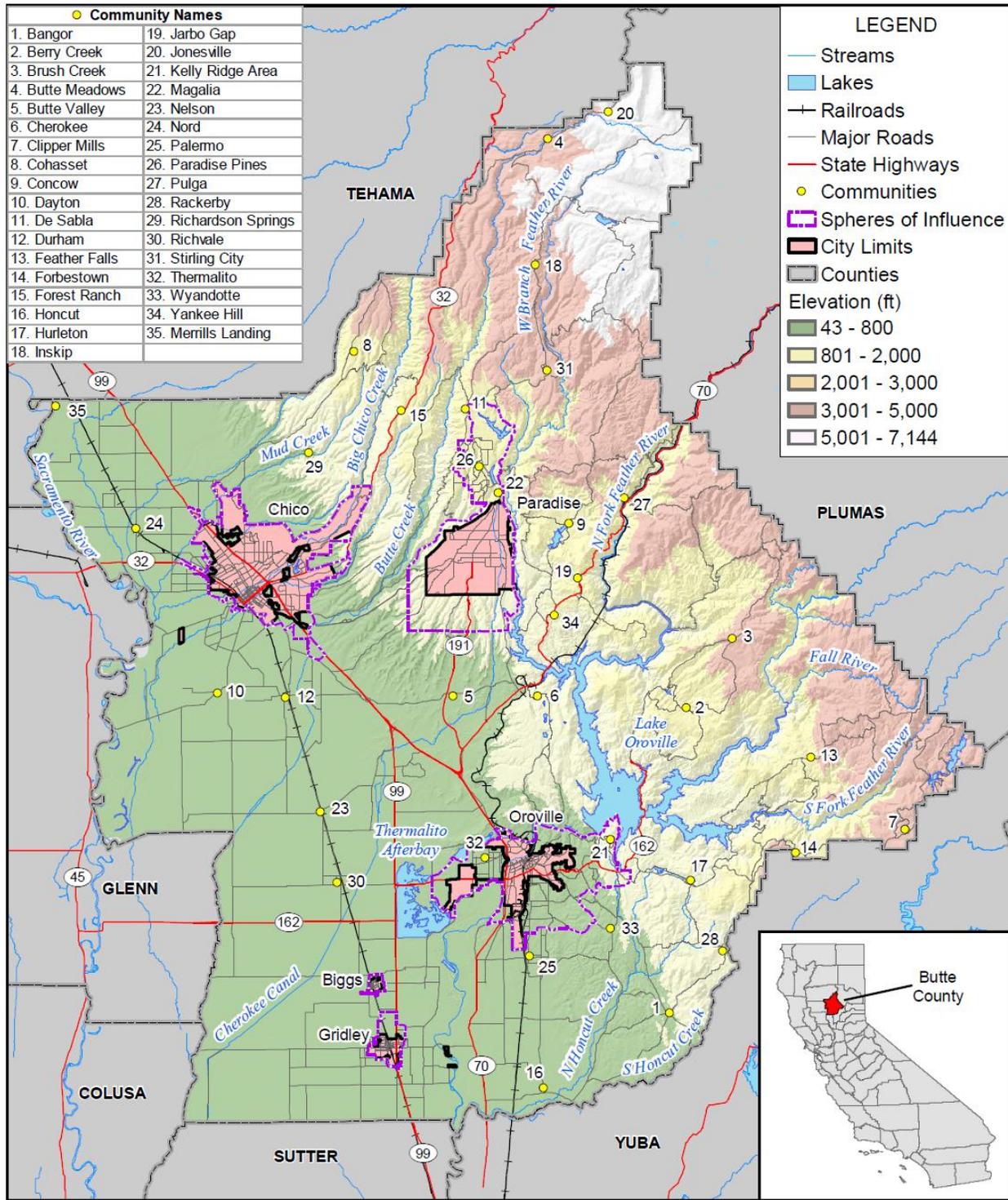
principal transportation corridors connecting the County to the region. State Routes 32 and 162 provide sub-regional connections to areas to the west of the County and to Interstate 5.

The County contains five incorporated cities: Chico, Oroville, Gridley, Biggs, and the Town of Paradise, and several small unincorporated rural communities. The County is also home to the Mechoopda Maidu tribe. 70 members of the tribe live on the Chico Rancheria, which is located approximately 3.5 miles south of Chico. The U.S. Forest Service is a major landowner in Butte County with holdings in Plumas National Forest (81,972 acres) and Lassen National Forest (49,240 acres). The U.S. Bureau of Land Management owns 18,960 acres, consisting of scattered foothill lands. Combined, these two Federal agencies own and control 12.3 percent of the land area in Butte County.

Butte County covers an area of approximately 1,670 square miles and can be divided into three general topographical areas: a valley area, a foothill region east of the valley area, and a mountain region east of the foothills. These topographic areas comprise approximately 46 percent, 23 percent, and 31 percent, respectively, of the County's land. Butte County is watered by the Feather River and the Sacramento River. The County in general is drained by the Feather River, Butte Creek, and Chico Creek Watersheds. Part of the County's western border is formed by the Sacramento River.

Butte County has rich fertile valley soil, rolling hills, volcanic peaks and mesas and some of the most dramatic canyons carved by beautiful streams and rivers. Butte County is a diverse 1,068,000 acres. Its highest point is Humboldt Peak at 7,870 feet, while the lowest point is about 90 feet above sea level. Large areas of this rural area are preserved unaltered in the nearly 60,000 acres of parkland and wildlife preserves within the county. The valley remains a vital wintering site for 60% of the waterfowl that migrate through the Pacific Flyway. Ducks, geese, swans and many other graceful birds literally cover the sky from November through March. From mid-February to mid-March, Butte County's countryside of almond, prune, kiwi, pear and apple orchards blossom into color. The orchard show is followed by an encore of spectacular wildflowers that bloom throughout the area from March to June. A map of the County is shown in Figure 1.1.

Figure 1.1. Butte County Base Map



Map compiled 6/2012; intended for planning purposes only.
Data Source: Butte County, CAL-ATLAS

1.3.1 History

The Native Americans were the first inhabitants of the Butte County area. The county included the territories of four groups of Native American peoples: the Maidu (mountain Maidu), the Nisenan (southern Maidu), the Konkow (northwestern Maidu) and Yana. Many Native Americans continue to reside in the area. The northern county was Maidu territory; they inhabited the mountain valleys from Honey Lake to Lassen Peak and generally at altitudes higher than 4,000 feet. The Nisenan territory was generally bounded by the Sacramento River in the west, the lower Feather River to the south, and the crest of the Sierra Nevada mountains to the east. The Konkow people inhabited the Feather River area, from west of Richbar almost to the Sutter Buttes, and the Sacramento River area from Butte City in the south to Butte Meadows in the north. The Yana people occupied a wide range of the county, from the edge of the Sacramento Valley to the crests of the Cascade and Sierra Nevada mountains. The last member of the Yana tribe was a man called Ishi. Ishi was also the last Native American in northern California to live the majority of his life outside of European American influence. Ishi and his ancestors occupied the foothill region near Mount Lassen, which is modern-day Butte County.

Spaniards explored parts of the area now known as Butte County as early as 1808, in search of mission sites. Hunters and trappers, such as Jedediah Strong Smith and a group of Hudson's Bay Company trappers, explored the present-day Butte County prior to the California gold rush of 1848. At that time, the region was outside the mainstream of both Mexican and American settlement and was scattered with just a handful of ranches on Mexican land grants. The discovery of gold in 1848 brought an influx of gold seekers to the region. Thousands of miners descended upon the area and set up transitory encampments, such as Bidwell Bar, Long Bar and Hamilton on the Feather River, and others along Butte Creek, where some gold was discovered. Mining camps established during the Gold Rush gradually developed into trading centers for mining and then for lumbering and agricultural goods.

In the latter part of the 19th century, the Gold Rush waned and the population steadied. The county's economic emphasis shifted back towards agriculture, with many lucrative crops including rice, almonds, walnuts and peaches. In 1850, Butte County became incorporated into the State of California as one of the original 27 counties. In 1856, the county's boundaries were redrawn to their current configuration. The County's first municipality, the City of Chico, was incorporated in 1860. Biggs was incorporated in 1903, Gridley was incorporated in 1905, Oroville was incorporated in 1906, and Paradise was incorporated in 1979.

Early migrants to the Richvale area of Butte County quickly realized that the soil was heavy and clay-like, unlike the fertile soil of the San Joaquin Valley. Although the soil was unaccommodating for the crops the settlers were accustomed to growing, Richvale soil was perfect for rice cultivation. In 1912, the first 1,000 acres of rice were planted in the Butte County community of Richvale, the birthplace of California's rice cultivation.

Major roadways were another significant development for Butte County in the early 1900s. State Route 162, the major east-west connection in the county, connecting the Mendocino coast to the City of Oroville was established in 1919. State Route 99, the north-south highway running through Gridley and Chico, was paved and finished in the early 1930s, as was State Route 70, the north-south connection from Oroville to Marysville.

The need to secure water resources for the growing population in southern California prompted the State Legislature to pass the Central Valley Act in 1933. The Act authorized construction of various water projects, both local serving as well as major State-wide developments that involved transporting water from northern California to the south. The Act authorizes the construction of the tallest dam (770 feet) in the United States, the Oroville Dam. Construction of the Oroville Dam and Lake Oroville began in 1961.

Since the 1970s there has been a sharp increase in the amount of development occurring throughout the foothill areas of the county. This development has been associated with an influx of retirement-age residents who moved to Butte County to enjoy its rural setting and take advantage of a relatively low cost of living. In the early 2000s, the unincorporated portion of Butte County experienced greater amounts of residential development spurred by the booming statewide demand for housing. This was especially the case in areas with municipal sewer service, such as Thermalito and southeast Oroville.

Nevertheless, the prime agricultural regions of the county have maintained their productivity and remain economically viable. These lands have been protected from development through a variety of means, including the Williamson Act, which Butte County adopted in 1967; the Chico Area Greenline, created in 1982; the Agricultural Element, adopted in 1995; and the Agricultural Buffer Ordinance, adopted in 2007.

1.3.2 Geography and Climate

Butte County encompasses just over one million acres of land and is divided into three topographical areas previously described. According to the Butte County General Plan, elevations range from over 7,000 feet in the mountainous region to 60 feet in the valley section.

Table 1.1. Geographic Statistics regarding Butte County

Statistic	Number
Area	Approximately 1,677 square miles
Land Area Acres	1,073,280
Elevation	230 feet above sea level
Highest point	Humboldt Peak at 7,870 feet
Lowest point	90 feet above sea level

Source: Butte County General Plan 2030

Butte County has a Mediterranean climate with cool, wet winters and hot, dry summers. Precipitation is normally in the form of rain, with snow in the higher elevations, and ranges from approximately 20 to 80 inches per year.

1.3.3 Economy

Agriculture has a major influence on the Butte County landscape and its economy and was the County’s primary industry in the nineteenth and twentieth centuries. Manufacturing and service industries also flourished during the twentieth century, as exemplified by the Diamond Match Company, canning, lumber and wood-processing enterprises. Other local industries included the manufacture of lead tube containers and prefabricated houses, structural steel fabrication, olive processing, sugar manufacturing, rice milling, walnut and almond processing and dairy processing.

Agriculture generates considerable economic activity and, as discussed in the Economic Development Element, trends indicate that agriculture will maintain a strong position within Butte County’s economy. Agriculture also supports other industrial sectors in Butte County, such as manufacturing, transportation and warehousing, which all generate a significant portion of the total sales volume in unincorporated Butte County. Other strong sales sectors in unincorporated Butte County are construction, wholesale and retail trades, and educational services. US Census estimate show economic characteristics for the County. These are shown in Table 1.2.

Table 1.2. Butte County Civilian Employed Population 16 years and Over

Industry	Estimated Employment	Percent
Agriculture, forestry, fishing and hunting, and mining	2,925	3.3%
Construction	4,578	5.2%
Manufacturing	5,389	6.1%
Wholesale trade	2,187	2.5%
Retail trade	12,104	13.7%
Transportation and warehousing, and utilities	3,661	4.2%
Information	1,695	1.9%
Finance and insurance, and real estate and rental and leasing	4,209	4.8%
Professional, scientific, and management, and administrative and waste management services	10,004	11.4%
Educational services, and health care and social assistance	24,315	27.6%
Arts, entertainment, and recreation, and accommodation and food services	8,733	9.9%
Other services, except public administration	4,482	5.1%
Public administration	3,749	4.3%

Source: US Census Bureau American Community Survey 2010 Estimates

1.3.4 Population

The California Department of Finance Demographic Research Unit 2012 estimates for population of the County and its jurisdictions are shown in Table 1.3.

Table 1.3. Butte County Population by Jurisdiction

Jurisdiction	Total Population
City of Biggs	1,696
City of Chico	87,500
City of Gridley	6,576
City of Oroville	15,563
Town of Paradise	26,147
Unincorporated	83,791
Total	221,27

Source: US Census Bureau

1.4 Plan Organization

The Butte County Local Hazard Mitigation Plan update is organized as follows:

- Chapter 2: What's New
- Chapter 3: Planning Process
- Chapter 4: Risk Assessment
- Chapter 5: Mitigation Strategy
- Chapter 6: Plan Adoption
- Chapter 7: Plan Implementation and Maintenance
- Jurisdictional Annexes
- Appendices