



Chapter 1 Introduction

1.1 Purpose






Colusa County, two incorporated communities, and six special districts prepared this Local Hazard Mitigation Plan (LHMP) Update to the Federal Emergency Management Agency (FEMA) approved 2018 Colusa County LHMP. The purpose of this LHMP Update is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events and natural disasters. This LHMP Update demonstrates the communities' commitment to reducing risks from hazards and serves as a tool to help decision makers direct mitigation activities and resources. This LHMP Update was also developed, among other things, to ensure Colusa County and participating jurisdictions' continued eligibility for certain federal disaster assistance: specifically, the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM) program, Building Resilient Infrastructure and Communities (BRIC) program, and the Flood Mitigation Assistance (FMA) program.

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 most expenses to insurance companies and nongovernmental organizations are not reimbursed by tax dollars. Although the timing of natural disasters is unpredictable, their occurrence is largely predictable over time, and much of the damage caused by these events can be significantly reduced.

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 provide evidence that, overall, mitigation activities are highly cost-effective investments. On average, each dollar spent on mitigation saves society an average of \$6 in avoided future losses in addition to saving lives and preventing injuries (National Institute of Building Science Multi-Hazard Mitigation Council 2019 Interim Report) (see Figure 1-1).

Figure 1-1 Natural Hazard Mitigation Savings by Hazard Type and Mitigation Type

National Institute of BUILDING SCIENCES™		ADOPT CODE	ABOVE CODE	BUILDING RETROFIT	LIFELINE RETROFIT	FEDERAL GRANTS
Overall Benefit-Cost Ratio		11:1	4:1	4:1	4:1	6:1
Cost (\$ billion)		\$1/year	\$4/year	\$520	\$0.6	\$27
Benefit (\$ billion)		\$13/year	\$16/year	\$2200	\$2.5	\$160
 Riverine Flood		6:1	5:1	6:1	8:1	7:1
 Hurricane Surge		not applicable	7:1	not applicable	not applicable	not applicable
 Wind		10:1	5:1	6:1	7:1	5:1
 Earthquake		12:1	4:1	13:1	3:1	3:1
 Wildland-Urban Interface Fire		not applicable	4:1	2:1	not applicable	3:1

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Source: National Institute of Building Science Multi-Hazard Mitigation Council 2019 Interim Report

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 Colusa 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.

This Colusa County LHMP is a multi-jurisdictional plan that geographically covers the entire area within Colusa 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 Update:

- Colusa County*
- City of Colusa*
- City of Williams*
- Colusa County RCD
- Cortina Community Services District
- Kletsel Dehe Wintun Nation
- Reclamation District 108*
- RD 479
- Sacramento River West Side Levee District*

* Participated in 2018 Colusa County LHMP

All plan participants from the 2018 Colusa County Plan are participating in this LHMP Update.

This LHMP 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 most current effective LHMP Preparation and Review Guidance, LHMP Policy Guide FP 206-21-0002 effective April 19, 2023. While DMA 2000 emphasized the need for mitigation plans and more coordinated mitigation planning and implementation

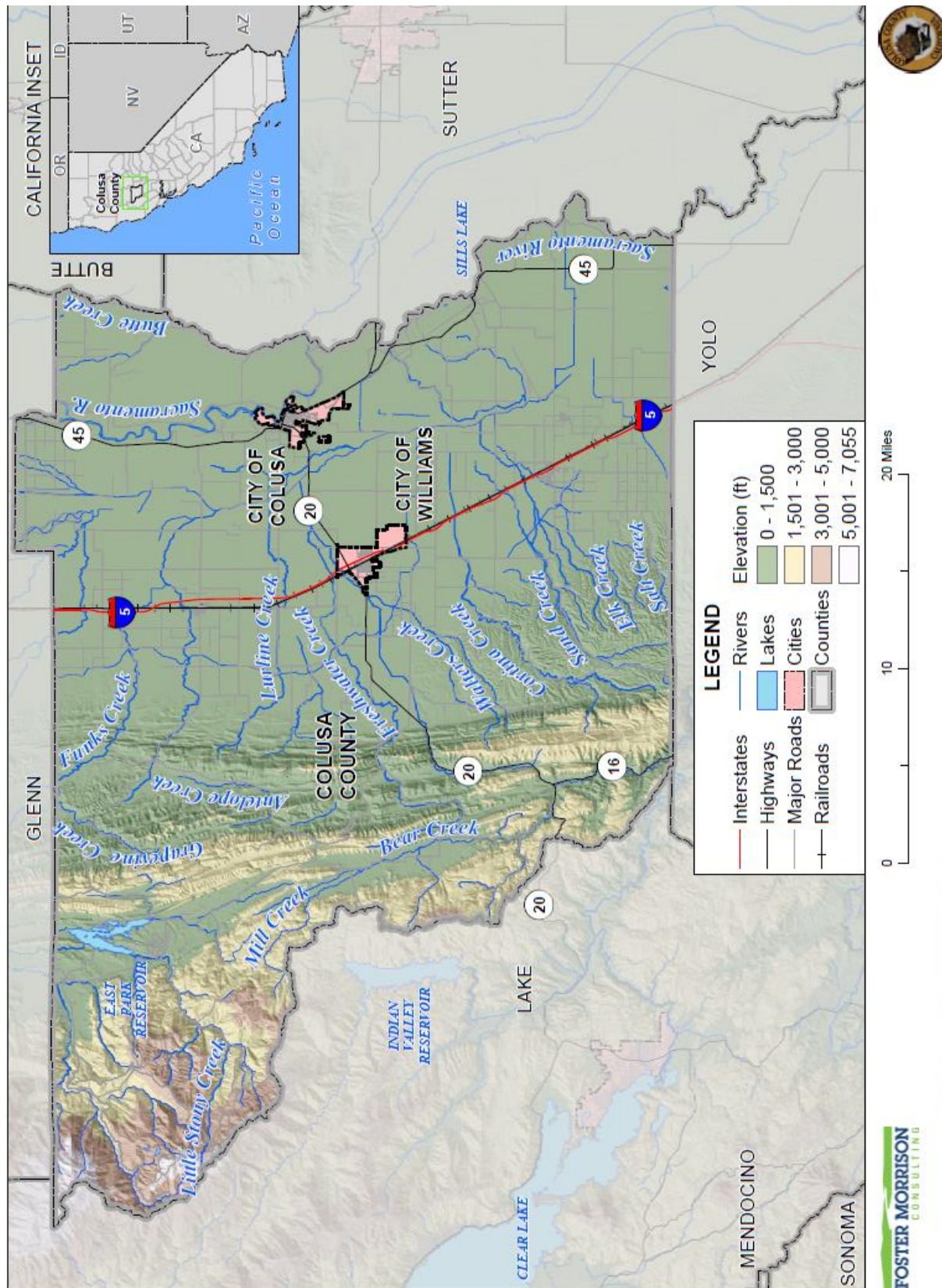
efforts, the regulations establish the requirements that local hazard mitigation plans must meet in order for a local jurisdiction to be eligible for certain federal disaster assistance and hazard mitigation funding under the Robert T. Stafford Disaster Relief and Emergency Act (Public Law 93-288). Because the Colusa County Planning Area is subject to many kinds of hazards, access to these programs is vital.

Information in this LHMP Update 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 public health and safety and critical community facilities; reducing liability exposure; and minimizing overall community impacts and disruptions. In the past, the Colusa County Planning Area has been affected by numerous hazards on multiple occasions. The participating jurisdictions are thus committed to reducing future impacts from hazard events and maintaining eligibility for mitigation-related federal funding.

1.3 Colusa County Profile

Colusa County is located along the western side of the Sacramento Valley and comprises an area of 1,152 square miles. There are two incorporated communities – the City of Colusa, and the City of Williams. The primary transportation route is Interstate Highway 5 (I-5), which runs north to south through the approximate center of Colusa County, serving Williams, Maxwell, and Arbuckle. State Highway 45, located approximately 20 miles to the west of I-5, follows the Sacramento River through Grimes, Colusa, and Princeton. State Highway 20 (SH 20) crosses the County from west to east, passing through the Cities of Williams and Colusa. A main line of the Southern Pacific Railroad crosses the middle of the County from north to south. Shallow draft boats can use the Sacramento River channel. There are small General aviation airports in the cities of Colusa and Williams. Figure 1-2 shows the Colusa County Planning Area.

Figure 1-2 Colusa County Planning Area



1.3.1. History

The history of Colusa County is rich in tradition, dating back to the first settler in 1846, William Bryant. This was after the first exploration of the area by white men in 1843 as authenticated by General Bidwell.

The first house built in Colusa County was on the banks of the Sacramento River in 1847 near the present site of Princeton. These were the first permanent inhabitants of Colusa.

The topography of the Sacramento Valley was depicted as a gentle slope of the land from the low mountains to a natural trough running through it. Some described it as plains. Seasonal changes had a marked effect on the appearance of the countryside in the early days. Luxurious vegetation was found in the spring and early summer. The timberlands that edged the river and the western boundary were called “tule lands,” with a profusion of wildflowers in the foothills and alkali lands on the valley floor which were called “goose lands.” An abundance of wildlife flourished in the area before the settlers inhabited it.

There were three settlements within the current boundaries of Colusa County when the first of the Forty - Niners arrived. Boundaries were made and properties transferred between Colusa, Glenn and Tehama Counties until Colusa and Glenn County were permanently divided in 1891.

According to the Colusa County website, Colusa County was established in 1850 as one of the original 27 counties created by the first state legislature. It once encompassed all of what is now Glenn County and a portion of Tehama County. In 1891, the counties of Glenn and Colusa were split. The County was named after the 1844 Rancho Colus Mexican land grant to John Bidwell. The name of the County in the original state legislative act of 1850 was spelled Colusi, and often in newspapers was spelled Coluse. The word is derived from the name of a Native American tribe living on the west side of the Sacramento River. The name was changed to Colusa shortly after. This, however, is disputed. The actual origin of the name is unknown.

1.3.2. Geography and Climate

Colusa County is bordered by Lake, Glenn, Butte, Sutter, and Yolo Counties to the west, north, east, and south, respectively. The County seat is located in the City of Colusa, which is located approximately 70 miles north of the State Capitol in the City of Sacramento.

The 2024 FEMA Flood Insurance Study (FIS) notes that elevations range from approximately 30 feet along the Sacramento River at the southeast corner of the County to a maximum of approximately 7,040 feet in the coastal ranges in the northwestern portion of the County. A large number of streams drain the County, including Elk Creek, Salt Creek, Stony Creek and Bear Creek. The County's eastern boundary is formed, in part, by the Sacramento River.

The climate in the region is characterized by hot, dry summers and cool winters. Temperatures in the City of Colusa average 45°F and 77°F in January and July, respectively. Peak high temperature in the County was 113°F. The average growing season is approximately 270 days. Annual precipitation averages approximately 16 inches in the City of Colusa. Flood-producing rainstorms normally occur between November and April. Peak flows in the streams, originating in the coastal ranges on the west side of the

County and in the Colusa Basin Drain (the primary north-to-south drainage channel), will result from winter rainstorms. Peak flow in the Sacramento River can result from winter rainstorms and winter and spring snowmelt.

1.3.3. Population and Demographics

The California Department of Finance 2024 estimates for population of Colusa County and its jurisdictions are shown in Table 1-1.

Table 1-1 Colusa County Population by Jurisdiction, 2024

Jurisdiction	Total Population
City of Colusa	6,447
City of Williams	5,528
Unincorporated County	9,768
Total	21,743

Source: California Department of Finance, 2024 E-1 Report

Select social and economic information for the unincorporated Colusa County are shown in Table 1-2.

Table 1-2 Unincorporated Colusa County – Select Social and Economic Statistics

Statistic	Number
Populations	
Population under 5	6.8%
Population over 65	15.1%
Median Age	36.0
White	42.9%
Black or African American	0.9%
American Indian or Alaska Native	2.3%
Asian	1.3%
Native Hawaiian or Pacific Islander	0.4%
Some Other Race	32.7%
Two or more races	19.5%
Median income	\$69,619
Mean Income	\$91,248
Poverty rate – All families	9.5%
Poverty rate – All people	10.9%
Unemployment Rate (February 2024)	20.1%

Source: 2020 US Census, 2021 US Census Bureau American Community Survey, California Employment Development Department

1.3.4. Economy and Tax Base

Colusa County has a diverse economy. US Census estimate show economic characteristics for the unincorporated County. These are shown in Table 1-3 and Table 1-4.

Table 1-3 Unincorporated Colusa County Civilian Employed Population 16 years and Over by Industry

Industry	Estimated Employment	Percent
Agriculture, forestry, fishing and hunting, and mining	2,144	22.0%
Construction	461	4.7%
Manufacturing	1,202	12.4%
Wholesale trade	212	2.2%
Retail trade	852	8.8%
Transportation and warehousing, and utilities	754	7.8%
Information	41	0.4%
Finance and insurance, and real estate and rental and leasing	166	1.7%
Professional, scientific, and management, and administrative and waste management services	400	4.1%
Educational services, and health care and social assistance	1,541	15.8%
Arts, entertainment, and recreation, and accommodation and food services	827	8.5%
Other services, except public administration	449	4.6%
Public administration	679	7.0%

Source: US Census Bureau American Community Survey 2021 Estimates

Table 1-4 Unincorporated Colusa County – Income and Benefits

Income Bracket	Percent
<\$10,000	2.5%
\$10,000 – \$14,999	0.6%
\$15,000 - \$24,999	4.9%
\$25,000 – \$34,999	8.1%
\$35,000 – \$49,999	11.5%
\$50,000 – \$74,999	15.3%
\$75,000 – \$99,999	17.8%
\$100,000 – \$149,999	17.7%
\$150,000 – \$199,999	11.0%
\$200,000 or more	9.6%

Source: US Census Bureau American Community Survey 2021 Estimates

Major employers in the County are shown in Table 1-5.

Table 1-5 Major Employers in Colusa County Planning Area

Employer Name	Location	Industry
Adams Grain Co	Arbuckle	Grain Brokers
Adams Vegetable Oils Inc	Arbuckle	Oils-Vegetable
ADM Milling Co	Arbuckle	Flour Mills
AlSCO-Geyer Irrigation Inc	Arbuckle	Irrigation Systems & Equipment
Arbuckle Elementary School	Arbuckle	Schools
Colusa Casino Resort	Colusa	Casinos
Colusa County Coroner	Colusa	Government Offices-County
Colusa County Health & Human	Colusa	Government Offices-County
Colusa County Sheriff Dept	Colusa	Government Offices-County
De Pue Warehouse Co	Williams	Warehouses-Merchandise & Self Storage
De Pue Warehouse Co Inc	Maxwell	Rice-Wholesale
Enid Prine Continuation Hs	Maxwell	Schools
George T Egling Middle School	Colusa	Schools
Granzella's	Williams	Restaurants
James Burchfield Primary Sch	Colusa	Schools
Myers & Charter Inc	Arbuckle	Rice Mills
Pierce Joint Unified School	Arbuckle	Schools
Premier Mushrooms	Colusa	Fruits & Vegetables-Wholesale
Princeton Elementary	Princeton	Schools
Social Services-Eligibility	Colusa	Human Services Organizations
Sun VALLEY Rice Co LLC	Arbuckle	Investments
Sunsweet Dryers	Colusa	Fruits & Vegetables-Growers & Shippers
Valley West Care Ctr	Williams	Health Services
Williams Elementary School	Williams	Schools

Source: America's Labor Market Information System (ALMIS) Employer Database, 2021 1st Edition.

Colusa County has a wide and varied tax base. Tax base information is tracked and maintained by the Colusa County Assessor's Office. The following tables show the tax base for the unincorporated County as well as for the incorporated jurisdictions. Table 1-6 shows the secured real property value by property use for the entire Colusa County Planning Area. Table 1-7 shows the secured real property value by jurisdiction.

Table 1-6 2023 Colusa County Planning Area Distribution of Value by Property Use*

Property Use	2023 Value (\$)	Percent of Current Roll
Agricultural	\$1,827,249,503	46.76%
Commercial	\$327,309,074	8.38%
Government	\$154,674,257	3.96%

Property Use	2023 Value (\$)	Percent of Current Roll
Industrial	\$284,737,477	7.29%
Institutional	\$33,076,413	0.85%
Miscellaneous	\$57,015,223	1.46%
Residential	\$1,223,367,221	31.31%
Totals	\$3,907,429,168	100.00%

Source: 2023 Colusa County Assessor's Office data

*includes land, structure, and other values

*Table 1-7 Colusa County Planning Area Local Assessment Roll Totals by Jurisdiction**

Jurisdiction	2023 Value (\$)	Percent of Current Roll
City of Colusa	\$637,299,874	16.31%
City of Williams	\$586,538,497	15.01%
Unincorporated Area	\$2,683,590,797	68.68%
Total Value	\$3,907,429,168	100.0%

Source: 2023 Colusa County Assessor's Office data

*includes land, structure, and other values

1.4 Plan Organization

The 2024 Colusa County LHMP Update is organized as follows:

- Chapters
 - ✓ Chapter 1: Introduction
 - ✓ Chapter 2: Community Profile
 - ✓ Chapter 3: Planning Process
 - ✓ Chapter 4: Risk Assessment
 - ✓ Chapter 5: Mitigation Strategy
 - ✓ Chapter 6: Plan Adoption
 - ✓ Chapter 7: Plan Implementation and Maintenance
- Annexes
 - ✓ Annex A: City of Colusa
 - ✓ Annex B: City of Williams
 - ✓ Annex C: Colusa County RCD
 - ✓ Annex D: Cortina Community Services District
 - ✓ Annex E: Kletsel Wintun Dehe Nation
 - ✓ Annex F: RD 108
 - ✓ Annex G: RD 479
 - ✓ Annex H: Sacramento Westside Levee District
- Appendices
 - ✓ Appendix A: Planning Process
 - ✓ Appendix B: References
 - ✓ Appendix C: Mitigation Strategy
 - ✓ Appendix D: Adoption Resolution

- ✓ Appendix E: Threatened and Endangered Species
- ✓ Appendix F: Critical Facilities