



Executive Summary

This 2021 Local Hazard Mitigation Plan (LHMP) Update serves to update the 2015 Federal Emergency Management Agency (FEMA) approved Yuba County LHMP. The purpose of hazard mitigation is to reduce or eliminate long-term risk to people and property from hazards. Yuba County, two incorporated communities, and nine special districts prepared this LHMP Update to the FEMA approved 2015 Yuba County LHMP, in order to make the County and its residents less vulnerable to future hazard events.

This LHMP Update 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 LHMP Update was also developed, among other things, to ensure Yuba County and participating jurisdictions' continued eligibility for certain federal disaster assistance: specifically, the FEMA Hazard Mitigation Grant Program (HMGP), the Building Resilient Infrastructure and Communities (BRIC) Program, and the Flood Mitigation Assistance Program (FMA).

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 to 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 alleviated or even eliminated. The purpose of hazard mitigation is to reduce or eliminate long-term risk to people and property from hazards.

LHMP Plan Development Process

Hazard mitigation planning is the process through which hazards that threaten communities are identified, likely impacts determined, mitigation goals set, and appropriate mitigation strategies determined, prioritized, and implemented. This LHMP Update documents the hazard mitigation planning process and identifies relevant hazards and vulnerabilities and strategies the County will use to decrease vulnerability and increase resiliency and sustainability in the community. This is a multi-jurisdictional plan with the following seeking approval of the plan by FEMA:

- Yuba County*
- City of Marysville*
- City of Wheatland*
- Browns Valley Irrigation District
- Marysville Levee Commission
- Reclamation District 10
- Reclamation District 784
- Reclamation District 817
- Reclamation District 2103
- South Sutter Water District
- Three Rivers Levee Improvement Authority
- Yuba County Water Agency*

* Participated in 2015 Yuba County LHMP

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. The County and all participating jurisdictions followed a planning process prescribed by FEMA as detailed in Table ES-1.

Table ES-1 Local Hazard Mitigation Planning Process

DMA Process	Modified CRS Process
1) Organize Resources	
201.6(c)(1)	1) Organize the Planning Effort
201.6(b)(1)	2) Involve the Public
201.6(b)(2) and (3)	3) Coordinate with Other Departments and Agencies
2) Assess Risks	
201.6(c)(2)(i)	4) Identify the Hazards
201.6(c)(2)(ii)	5) Assess the Risks
3) Develop the Mitigation Plan	
201.6(c)(3)(i)	6) Set Goals
201.6(c)(3)(ii)	7) Review Possible Activities
201.6(c)(3)(iii)	8) Draft an Action Plan
4) Implement the Plan and Monitor Progress	
201.6(c)(5)	9) Adopt the Plan
201.6(c)(4)	10) Implement, Evaluate, and Revise the Plan

The planning process began with the organizational phase to establish the Hazard Mitigation Planning Committee (HMPC) comprised of key County representatives, and other local and regional stakeholders; to involve the public; and to coordinate with other departments and agencies. A detailed risk assessment was then conducted followed by the development of a focused mitigation strategy by all participating jurisdictions or the Yuba County Planning Area. Once approved by Cal OES and FEMA, this LHMP Update will be adopted and implemented by the County and all participating jurisdictions over the next five years.

Risk Assessment

The HMPC conducted a risk assessment that identified and profiled hazards that pose a risk to the County and participating jurisdictions, assessed the vulnerability of the Yuba County Planning Area to these hazards, and examined the existing capabilities to mitigate them.

The Yuba County Planning Area is vulnerable to numerous hazards that are identified, profiled, and analyzed in this Plan. Floods, earthquakes, drought, levee failures, landslides, wildfires, and other severe

weather events are among the hazards that can have a significant impact on the County. Table ES-2 details the hazards identified for this Yuba County LHMP Update.

Table ES-2 Yuba County Hazard Identification Assessment

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/Severity	Significance	Climate Change Influence
Climate Change	Extensive	Likely	Limited	Medium	–
Dam Failure	Significant	Occasional	Critical	Medium	Medium
Drought & Water Shortage	Extensive	Likely	Critical	Medium	High
Earthquake	Extensive	Unlikely	Critical	Medium	Low
Floods: 1%/0.5%/0.2% annual chance	Limited	Unlikely	Critical	High	Medium
Floods: Localized Stormwater	Limited	Highly Likely	Limited	Medium	Medium
Levee Failure	Limited	Occasional	Limited	High	Medium
Pandemic	Extensive	Likely	Critical	Medium	Medium
Severe Weather: Extreme Cold and Freeze	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: Extreme Heat	Extensive	Highly Likely	Limited	Medium	High
Severe Weather: Heavy Rains and Storms	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: High Winds and Tornadoes	Extensive	Highly Likely	Limited	Medium	Low
Wildfire	Significant	Likely	Critical	High	High
Geographic Extent Limited: Less than 10% of planning area Significant: 10-50% of planning area Extensive: 50-100% of planning area Likelihood of Future Occurrences Highly Likely: Near 100% chance of occurrence in next year, or happens every year. Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less. Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years. Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.	Magnitude/Severity Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid Significance Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact Climate Change Influence Low: minimal potential impact Medium: moderate potential impact High: widespread potential impact				

Mitigation Strategy

Based on the results of the risk assessment, the participating jurisdictions and the HMPC developed a mitigation strategy for reducing the County's and all participating jurisdictions' risk and vulnerability to hazards. The resulting Mitigation Strategy for the Yuba County Planning Area is comprised of LHMP goals and objectives and a mitigation action plan which includes a series of mitigation action projects and implementation measures. Based on the risk assessment, the HMPC identified goals and objectives for reducing the Yuba County Planning Area's vulnerability to hazards. The goals and objectives of this multi-hazard mitigation plan are:

GOAL 1: Minimize risk and vulnerability of Yuba County to natural hazards, including climate change considerations, and prevent injuries, loss of life, and damage to property, economy and the environment

GOAL 2: Provide protection for critical facilities, infrastructure, and utilities; and create redundancy and reliability to minimize loss and facilitate recovery

GOAL 3: Promote public awareness, education, and understanding of natural hazards and the risks they present to quality of life, property and the economy; and encourage individual responsibility to minimize impacts to natural hazards

GOAL 4: Enhance the ability of Yuba County and participating jurisdictions to be prepared for, respond to, and recover from the effects of hazards on people, property, economy, and the environment; including expanded use of technology and shared resources

GOAL 5: Continue to support partnerships with private and public sector agencies, businesses, and organizations to further comprehensive planning and implementation of mitigation measures

GOAL 6: Maintain FEMA eligibility and position Yuba County and participating jurisdictions for grant funding through continued compliance with the Disaster Mitigation Act of 2000 and the National Flood Insurance Program

Actions to support these goals are shown on Table ES-3.

Table ES-3 Yuba County Planning Area Mitigation Actions

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Yuba County						
Multi-Hazard Actions						
Action 1. Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	Yuba County	2015 Action	X	X		Prevention
Action 2. Enhance Public Education and Awareness of Natural Hazards and Public Understanding of Disaster Preparedness	Yuba County and all jurisdictions	2015 Action	X	X	X	Public Information
Action 3. High Visibility Striping and Pull-Outs Project	Yuba County and all jurisdictions	New Action	X	X		Emergency Services Structural Projects
Action 4. Foothill Audible Alarm Project	Yuba County and all jurisdictions	New Action	X	X		Emergency Services
Climate Change Mitigation Actions						
Action 5. Climate Change Vulnerability Analysis	Yuba County	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection
Dam Failure, Floods: 1%/0.2% Annual Chance, Floods: Localized Stormwater, and Severe Weather: Heavy Rain and Storms Mitigation Actions						
Action 6. Plumas Lake Boulevard Interchange, Phase II	Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 7. Feather River Boulevard - Complete Streets Project	Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 8. McGowan Parkway Drainage	Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 9. Ninth Avenue Drainage	Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 10. Fleming Way Drainage	Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 11. West Linda Drainage Basin	Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 12. Implementation of CRS Activities	Yuba County	2015 Action	X	X	X	Prevention Property Protection Natural Resource Protection
Drought and Water Shortage, Extreme Heat, High Wind, and Wildfire Mitigation Actions						
Action 13. Fuel Reduction Project	Yuba County	New Action	X	X		Prevention Property Protection Natural Resource Protection
Action 14. Wildfire Mitigation (Fuels Management)	Yuba County	New Action	X	X		Prevention Property Protection Natural Resource Protection
Severe Weather: Extreme Cold and Freeze Mitigation Actions						
Action 15. Winter Weather Preparedness Campaign	Yuba County	2015 Action	X	X		Public Information Emergency Services
City of Marysville						
Action 1. Enhance Public Education and Awareness of Natural Hazards and Public Understanding of Disaster Preparedness	City of Marysville	2015 Action	X	X		Prevention
Action 2. General Plan Safety Element Update	City of Marysville	2015 Action	X	X		Public Information
Action 3. Dam Failure Mitigation	City of Marysville	New Action	X	X	X	Prevention

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 4. Update Safety Element Policies and Implement Drought and Water Shortage Policies	City of Marysville	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection
Action 5. Update Safety Element Flood Policies and Implement Flood Policies	City of Marysville	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 6. Levee Upgrades by the Army Corps	City of Marysville	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 7. Implement Wildfire Policies	City of Marysville	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection
Action 8. Implement Severe Weather Policies	City of Marysville	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection
City of Wheatland						
Action 1. Integrate Local Hazard Mitigation Plan into Safety Element of General Plan	City of Wheatland	2015 Action	X	X		Prevention
Action 2. Enhance Public Education and Awareness of Natural Hazards and Public Understanding of Disaster Preparedness	City of Wheatland	2015 Action	X	X		Public Information
Action 3. Development & Implementation of Community Wildfire Prevention/Risk Management Plan	City of Wheatland	New Action	X	X		Prevention Property Protection Natural Resource Protection
Action 4. Annual Coordination with Dam Owners	City of Wheatland	New Action	X	X		Prevention Property Protection Natural Resource Protection

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 5. Annual Storm Drain and Storm Ditches Cleaning	City of Wheatland	New Action	X	X	X	Prevention Property Protection Structural Projects
Action 6. Emergency Generators at all Critical Facilities	City of Wheatland	New Action	X	X	X	Prevention Property Protection Structural Projects
Action 7. Regional Wastewater Pipeline	City of Wheatland	New Action	X	X	X	Prevention Property Protection Structural Projects
Action 8. Comprehensive Drinking Water Project - Phase 1	City of Wheatland	New Action	X	X	X	Prevention Property Protection Structural Projects
Action 9. Comprehensive Drinking Water Project - Phase 2	City of Wheatland	New Action	X	X	X	Prevention Property Protection Structural Projects
Browns Valley Irrigation District						
Action 1. Install backup Natural Gas Tank and Generator	BVID and unincorporated Yuba County	New Action	X	X	X	Property Protection Emergency Services
Action 2. Public Outreach via Newsletter and Mobile Phone Text	BVID and unincorporated Yuba County	New Action	X	X		Public Information
Action 3. Sicard Flat Ditch with Pipeline	BVID and unincorporated Yuba County	New Action	X	X		Structural Project Natural Resource Protection
Action 4. Replace Remaining Wood Flume with Metal Flume during Regular Maintenance	BVID and unincorporated Yuba County	New Action	X	X		Structural Project Property Protection Natural Resource Protection
Action 5. Relocate Bypass Channel that Supplies Yuba River Water to BVID Fish Screen/Pump Station	BVID and unincorporated Yuba County	New Action	X	X	X	Structural Project Property Protection Natural Resource Protection

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Action 6. Update Collins Lake Drawdown vs Lake Level Chart	BVID and unincorporated Yuba County	New Action	X	X		Prevention
Marysville Levee Commission						
Action 1. Eliminate Openings in Levees	MLC, City of Marysville, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 2. Addressed Levee Underseepage	MLC, City of Marysville, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Reclamation District 10						
Action 1. Implement Feather River Levee Improvement Projects - Seepage and Stability Mitigation (Feather River Levee Improvement Projects) – (To consider combination of seepage/stability berms and/or cutoff walls) Implementation of the RD 10 Toe Access Corridor Project for Flood Fight Access, Monitoring, and Operations and Maintenance	RD 10 and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 2. Implementation of the RD 10 Toe Access Corridor Project for Flood Fight Access, Monitoring, and Operations and Maintenance	RD 10 and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection Emergency Services
Action 3. Implement: Pipe Replacement Projects and Pump Improvement Projects	RD 10 and unincorporated Yuba County	New Action	X	X	X	Property Protection Structural Projects Natural Resource Protection

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Reclamation District 784						
Action 1. Dam Failure Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection Emergency Services
Action 2. Drought & Water Shortage Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X		Prevention Property Protection Natural Resource Protection
Action 3. Earthquake Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X		Prevention Property Protection Emergency Services
Action 4. Floods: Localized Stormwater Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X	X	Property Protection Structural Projects Natural Resource Protection
Action 5. Flood Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Emergency Services
Action 6. Pandemic Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X		Prevention Public Information
Action 7. Severe Weather Mitigation	RD 784 and unincorporated Yuba County	New Action	X	X		Prevention Property Protection Emergency Services
Reclamation District 817						
Action 1. Implement Problem Identification and Feasibility Study on Bear River and Dry Creek	RD 817, City of Wheatland, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Emergency Services
Action 2. Implement Alternatives Identified in Action 1	RD 817, City of Wheatland, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Emergency Services

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Reclamation District 2103						
Action 1. Implement improvements recommended in Dry Creek and SCFRR Feasibility Studies	RD 2103, City of Wheatland, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 2. Repair and certify Grasshopper Slough Levee	RD 2103, City of Wheatland, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 3. Develop a USACE System-Wide Improvement Framework Plan	RD 2103, City of Wheatland, and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
South Sutter Water District						
Action 1. Auxiliary Spillway	SSWD and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 2. Ground Water Sustainability Agency	SSWD and unincorporated Yuba County	New Action	X	X		Prevention Property Protection
Three Rivers Levee Improvement Authority						
Action 1. Yuba River North Training Wall Project	TRLIA and unincorporated Yuba County	New Action	X	X	X	Prevention Property Protection Structural Projects Natural Resource Protection
Action 2. Yuba River Goldfields 500yr Project	TRLIA and unincorporated Yuba County	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection

Action Title	Jurisdictions Benefiting from Action (s)	New Action/ 2015 Action	Address Current Development	Address Future Development	Continued NFIP Compliance	Mitigation Type
Yuba County Water Agency						
Action 1. New Bullards Bar Dam Secondary Spillway	YCWA and unincorporated County	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection
Action 2. North Yuba Forest Partnership	YCWA and unincorporated County	New Action	X	X		Prevention Property Protection Structural Projects Natural Resource Protection