

EXECUTIVE SUMMARY

HAZARD MITIGATION OVERVIEW

Hazard mitigation is the use of long-term and short-term policies, programs, projects, and other activities to alleviate the death, injury, and property damage that can result from a disaster. Humboldt County and a partnership of local governments within the operational area have developed a hazard mitigation plan to reduce risks from natural disasters in the Humboldt County Operational Area—defined as the unincorporated county, incorporated cities, and special purpose districts planning partners authorized to govern, develop, or regulate. The plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency (FEMA) grant programs for all planning partners.

UPDATING THE HUMBOLDT COUNTY PLAN

This plan is a comprehensive update of the *2014 Humboldt Operational Area Hazard Mitigation Plan*, which covered the unincorporated county, the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell and Trinidad, and 23 special-purpose districts within the county. FEMA approved the 2014 plan on March 20, 2014, and it expired on March 20, 2019. This update reestablishes FEMA hazard mitigation grant assistance eligibility for participating planning partners. All but one of the original planning partners have participated in the update and four new planning partners were added, as listed in Table ES-1.

PLAN DEVELOPMENT APPROACH

Organization

A core planning team consisting of a contract consultant and Humboldt County staff was assembled to facilitate this plan update. A planning partnership was formed by engaging eligible local governments within the Operational Area and making sure they understood their expectations for compliance under the updated plan. A steering committee was assembled to oversee the plan update, consisting of both governmental and non-governmental stakeholders within the Operational Area. Coordination with other county, state, and federal agencies involved in hazard mitigation occurred throughout the plan update process. Organization efforts included a review of the *2014 Humboldt Operational Area Hazard Mitigation Plan*, the California statewide hazard mitigation plan, and existing programs that may support hazard mitigation actions.

Public Outreach

The planning team implemented a multi-media public involvement strategy utilizing the outreach capabilities of the planning partnership that was approved by the Steering Committee. The strategy included public meetings, a hazard mitigation survey, an information booth at the Veteran's day parade, a project website, the use of social media and multiple media releases.

Table ES-1. Planning Partners

Jurisdiction	Point of Contact	Title
Humboldt County	Dorie Lanni	Emergency Services Manager
City of Arcata	Mike Clinton	Environmental Services Deputy Director
City of Blue Lake	Amanda Mager	City Manager
City of Eureka	Brian Gerving	Public Works Director
City of Ferndale	Jay Parrish	City Manager
City of Fortuna	Kevin Carter	Public Works Deputy Director
City of Rio Dell	Kyle Knopp	City Manager
City of Trinidad	Bryan Buckman	Public Works Director
Fieldbrook Glendale Community Services District	Richard Hanger	General Manager
Humboldt Community Services District	David Hull	General Manager
Manila Community Services District	Christopher Drop	General Manager
McKinleyville Community Services District	Gregory Orsini	General Manager
Redway Community Services District	Terrence Williams	General Manager
Westhaven Community Services District	Paul Rosenblatt	General Manager
Willow Creek Community Services District	Susan O'Gorman	General Manager
Arcata Fire District	Justin McDonald	Fire Chief
Fortuna Fire Protection District	Rus Brown	Division Chief
Humboldt Bay Fire District	William M. Reynolds	Deputy Chief
Samoa Peninsula Fire Protection District	Dale Unea	Fire Chief
Humboldt Bay Municipal Water District	John Friedenbach	General Manager
Humboldt Bay Harbor, Recreation, and Conservation District	Larry Oetker	General Manager
Shelter Cove Resort Improvement District	Justin Robbins	General Manager
Southern Humboldt Community Healthcare District	Guy Vitello	Engineering Manager

Plan Document Development

The planning team and Steering Committee assembled a document to meet federal hazard mitigation planning requirements for all partners. The updated plan contains two volumes. Volume 1 contains components that apply to all partners and the broader Operational Area. Volume 2 contains all components that are jurisdiction-specific. Each planning partner has a dedicated annex in Volume 2.

Adoption

Once pre-adoption approval has been granted by the California Office of Emergency Services and FEMA Region IX, the final adoption phase will begin. Each planning partner will individually adopt the updated plan.

RISK ASSESSMENT

Risk assessment is the process of measuring the potential loss of life resulting from natural hazards, as well as personal injury, economic injury and property damage, in order to determine the vulnerability of people, buildings, and infrastructure to natural hazards. For this update, risk assessment models were enhanced with new data and technologies that have become available since 2010. The Steering Committee used the risk assessment to rank risk and to gauge the potential impacts of each hazard of concern in the Operational Area. The risk assessment included the following:

- Hazard identification and profiling
- Assessment of the impact of hazards on physical, social, and economic assets

- Identification of particular areas of vulnerability
- Estimates of the cost of potential damage.

Based on the risk assessment, hazards were ranked for the risk they pose to the overall Operational Area, as shown in Table ES-2. Each planning partner also ranked hazards for its own area. Table ES-3 summarizes the categories of high, medium and low (relative to other rankings) based on the numerical ratings that each jurisdiction assigned each hazard.

Table ES-2. Hazard Risk Ranking

Hazard Ranking	Hazard Event	Category ^a
1	Earthquake	High
2	Wildfire	High
3	Severe weather	High
4	Landslide	Medium
4	Sea Level Rise	Medium
5	Flooding	Medium
5	Tsunami	Medium
6	Drought	Low
7	Dam Failure	Low

a. Scores of 30 or greater are rated as “high,” scores of 15 to 29 are “medium,” and scores of less than 15 are “low”

Table ES-3. Summary of Hazard Ranking Results

	Number of Jurisdictions Assigning Ranking to Hazard			
	High	Medium	Low	Not Ranked
Dam Failure	0	6	10	7
Drought	3	1	17	2
Earthquake	23	0	0	0
Flooding	4	12	7	0
Landslide	13	7	1	2
Sea Level Rise	3	7	2	11
Severe Weather	21	2	0	0
Tsunami	1	9	5	8
Wildfire	10	10	3	0

The results indicate the following general patterns:

- Almost all planning partner ranked earthquake as high and more than half ranked wildfire as high.
- The flooding and severe weather hazards were most commonly ranked as medium.
- The drought hazard was most commonly ranked as low.
- Exposure and vulnerability to the hazards differ significantly among the planning partners.

MITIGATION GOALS AND OBJECTIVES

The Steering Committee reviewed and made minor updates to the guiding principle, goals, and objectives from the 2014 *Humboldt Operational Area Hazard Mitigation Plan*. The following guiding principle guided the Steering Committee and planning partners in selecting actions contained in this plan update:

Through partnerships and careful planning, identify and reduce the vulnerability to hazards in order to protect the health, safety, quality of life, environment, and economy of the communities within the Humboldt Operational Area.

Goals

The Steering Committee and planning partners established the following goals for the plan update:

1. Protect Health and Safety
2. Protect Property
3. Protect the Economy
4. Protect Quality of Life
5. Protect Environment
6. Promote Partnerships in Planning

The effectiveness of a mitigation strategy is assessed by determining how well these goals are achieved.

Objectives

Each selected objective meets multiple goals, serving as a stand-alone measurement of the effectiveness of a mitigation action, rather than as a subset of a goal. The objectives also are used to help establish priorities. The objectives are as follows:

1. Minimize disruption of local government operations caused by hazards.
2. Increase resilience of (or protect and maintain) infrastructure and critical facilities.
3. Reduce hazard-related risks and vulnerability of the populations in Humboldt County.
4. Sustain reliable local emergency operations and facilities during and after a disaster.
5. Enhance emergency response capabilities and participation within the planning area.
6. Enhance understanding of hazards and the risk they pose through public education that emphasizes awareness, preparation, mitigation, response and recovery alternatives.
7. Continually improve understanding of the location and potential impacts of hazards that impact the planning area utilizing the best available data and science as it becomes available, and share this information with all stakeholders.
8. Establish a partnership among all levels of government and the business community to improve and implement methods to protect property.
9. Develop and implement hazard mitigation strategies that reduce losses to wildlife habitat and protect water supply and quality, while also reducing damage to development.
10. Integrate hazard identification information and mitigation policies into other planning-based processes that direct or impact land uses in the planning area.
11. Enhance building codes and their proper implementations so that new construction can withstand the impacts of hazards and lessen the impact of that development on the environment's ability to absorb the impact of hazards.
12. Seek to integrate and coordinate all phases of emergency management within the planning area.

MITIGATION ACTION PLAN

The planning partners selected mitigation actions to work toward achieving the goals set forth in this plan update. Mitigation actions presented in this update are activities designed to reduce or eliminate losses resulting from natural hazards. The update process resulted in the identification of 309 mitigation actions for implementation by individual planning partners, as presented in Volume 2 of this plan. In addition, the Steering Committee and planning partners identified countywide actions benefiting the whole partnership, as listed in Table ES-4.

IMPLEMENTATION

The Steering Committee developed a plan implementation and maintenance strategy that includes grant monitoring and coordination, a strategy for continued public involvement, a commitment to plan integration with other relevant plans and programs, and a recommitment from the planning partnership to actively monitoring and evaluating the plan over the five-year performance period.

Full implementation of the recommendations of this plan will require time and resources. The measure of the plan’s success will be its ability to adapt to changing conditions. The County of Del Norte and its planning partners will assume responsibility for adopting the recommendations of this plan and committing resources toward implementation. The framework established by this plan commits all planning partners to pursue actions when the benefits of a project exceed its costs. The planning partnership developed this plan with extensive public input, and public support of the actions identified in this plan will help ensure the plan’s success.

Table ES-4. Area-Wide Hazard Mitigation Actions

Action Number and Description	Implementation Priority
CW-1 —Continue to participate in the planning partnership and, to the extent possible based on available resources, provide coordination and technical assistance in applications for grant funding that include assistance in cost vs. benefit analysis.	High
CW-2 —Encourage the development and implementation of an operational area-wide hazard mitigation public-information strategy that meets the needs of all planning partners.	High
CW-3 —Coordinate updates to land use and building regulations as they pertain to reducing the impacts of natural hazards, to seek a regulatory cohesiveness within the planning area. This can be accomplished via a commitment from all planning partners to involve each other in their adoption processes, by seeking input and comment during the course of regulatory updates or general planning.	High
CW-4 —Sponsor and maintain a natural hazards informational website to include the following types of information: <ul style="list-style-type: none"> • Hazard-specific information such as GIS layers, private property mitigation alternatives, important facts on risk and vulnerability • Pre- and post-disaster information such as notices of grant funding availability • Links to Planning Partners’ pages, FEMA, Red Cross, NOAA, USGS and the National Weather Service. • Hazard mitigation plan information such as progress reports, mitigation success stories, update strategies, Steering Committee meetings. 	Medium
CW-5 —Maintain the Hazard Mitigation Plan Steering Committee as a viable body over time to monitor progress of the plan, provide technical assistance to Planning Partners and oversee the update of the plan according to schedule. This body will continue to operate under the ground rules established at its inception.	High
CW-6 —Amend or enhance the Humboldt County Operational Area Hazard Mitigation Plan as well as the general Plans for each municipality as needed to comply with state or federal mandates (i.e., CA. Assembly Bill # 2140) as guidance for compliance with these programs become available.	High
CW-7 —Work with the Humboldt County Assessor to begin the capture of general building stock information such as area, date of construction and foundation type, to better support future risk assessments.	Medium