



LAKE SHASTINA COMMUNITY SERVICES DISTRICT

RESOLUTION 6-19

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE LAKE SHASTINA COMMUNITY SERVICES DISTRICT ADOPTING THE SISKIYOU COUNTY LOCAL HAZARD MITIGATION PLAN.

Whereas, the Lake Shastina Community Services District (LSCSD) recognizes the threat that natural hazards pose to people and property within our community; and

Whereas, undertaking hazard mitigation actions will reduce the potential for harm to people and property from future hazard occurrences; and

Whereas, the U.S. Congress passed the Disaster Mitigation Act of 2000 (“Disaster Mitigation Act”) emphasizing the need for pre-disaster mitigation of potential hazards; and

Whereas, the Disaster Mitigation Act made available hazard mitigation grants to state and local governments; and

Whereas, an adopted Local Hazard Mitigation Plan is required as a condition of future funding for mitigation projects under multiple FEMA pre- and post-disaster mitigation grant programs; and

Whereas, LSCSD fully participated in the FEMA-prescribed mitigation planning process to prepare this local hazard mitigation plan; and

Whereas, the California Office of Emergency Services and Federal Emergency Management Agency, Region IX officials have reviewed the Siskiyou County Local Hazard Mitigation Plan and approved it contingent upon this official adoption of the participating governing body; and

Whereas, the LSCSD desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Siskiyou County Local Hazard Mitigation Plan; and

Whereas, adoption by the governing body for the LSCSD demonstrates the jurisdiction’s commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan; and

Whereas, adoption of this legitimizes the plan and authorizes responsible agencies to carry out their responsibilities under the plan. (Siskiyou County Public Review Draft Local Hazard Mitigation Plan Update August 2018.)


Now, therefore, be it resolved, that the LSCSD adopts the Siskiyou County Local Hazard Mitigation Plan as an official plan; and

Be it resolved, that the LSCSD adopts the Siskiyou County Local Hazard Mitigation Plan by reference into the safety element of their general plan in accordance with the requirements of AB 2140, and

Be it further resolved, LSCSD will submit this adoption resolution to the California Office of Emergency Services and FEMA Region IX officials to enable the plan's final approval in accordance with the requirements of the Disaster Mitigation Act of 2000 and to establish conformance with the requirements of AB 2140.


I hereby certify that the forgoing is a full, true and correct copy of Resolution 6-19 duly passed and adopted by the Board of Directors of the Lake Shastina Community Services District, Siskiyou County, California, at a meeting thereof duly held on the 21st day of August 2019, by the following vote:

AYES: Directors Beck, Cupp, MacIntosh, Mitchell and Thompson
NOES: None
ABSENT: None



Rick Thompson, President

ATTEST:



Robert Moser, Secretary



FEMA

July 16, 2019

Jasen Vela
Deputy Director
Siskiyou County Office of Emergency Services
806 S. Main St.
Yreka, CA 96097

Dear Mr. Vela:

We have completed our review of the *Siskiyou County Hazard Mitigation Plan* and have determined that this plan is eligible for final approval pending its adoption by Siskiyou County and all participating jurisdictions. Please see the enclosed list of approvable pending adoption jurisdictions.

Formal adoption documentation must be submitted to the FEMA Region IX office by the lead jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. We will approve the plan upon receipt of the documentation of formal adoption.

If you have any questions regarding the planning or review processes, please contact the FEMA Region IX Hazard Mitigation Planning Team at fema-r9-mitigation-planning@fema.dhs.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "for Juliette Hayes". The signature is written in a cursive style.

Juliette Hayes
Director
Mitigation Division
FEMA, Region IX

Enclosure

cc: Adam Sutkus, Hazard Mitigation Planning Chief, California Governor's Office of
Emergency Services
Jennifer Hogan, State Hazard Mitigation Officer, California Governor's Office of
Emergency Services

Status of Participating Jurisdictions as of July 16, 2019

Jurisdictions – Adopted and Approved

#	Jurisdiction	Date of Adoption
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		

Jurisdictions – Approvable Pending Adoption

#	Jurisdiction
1	Dorris, City of
2	Dunsmuir, City of
3	Etna, City of
4	Fort Jones, Town of
5	Happy Camp Community Services District
6	Happy Camp Sanitary District
7	Lake Shastina Community Services District
8	Montague, City of
9	Mt. Cloud Community Services District
10	Mt. Shasta, City of
11	Siskiyou, County of
12	Tulelake, City of
13	Weed, City of
14	Yreka, City of



Hazard Mitigation Planning Division Requirements to Adopt Local Hazard Mitigation Plans (LHMPs) to Be Compliant for AB 2140

To be compliant for AB 2140 approval, the local agency must:

- Adopt the current LHMP into the Safety Element of the General Plan. The local jurisdiction can either cross reference the LHMP and AB 2140 Eligibility resolution, or they can actually include the LHMP language specific to AB 2140 as part of their safety element. If the jurisdiction chooses to adopt “by reference,” they must state that in the AB 2140 Eligibility resolution.
- Submit proof of their adoption to the California Governor’s Office of Emergency Services (Cal OES), Mitigation Planning Division. This proof must be submitted as a certified hard copy of a Governing Body Resolution (Resolution of Adoption) with original signatures and certification stamp. Scanned documents will not be accepted.
- If the LHMP is a multiple-jurisdiction plan, each city or county jurisdiction involved must adopt the plan into the Safety Element of its own General Plan. It is not sufficient for only the lead plan to adopt because the annexes will not be covered. There are two exceptions as follows:
 - If a jurisdiction does not have a general plan (as in the case of a special district, small township, unincorporated area, etc.) and is an annex within a multiple-jurisdiction plan, the jurisdiction is covered by the lead jurisdiction’s general plan if the lead jurisdiction is AB 2140 compliant.
 - If a special district covers two or more counties, it may reach out to the county, if applicable, that is AB 2140 compliant in the event of a disaster declaration.
- Adopt the LHMP into the Safety Element of the General Plan after the LHMP has received final approval from FEMA. Adoptions before plan approval will not be accepted.
- Adoption into the Safety Element of the General Plan after the plan has expired will be not accepted, nor will it apply to the next LHMP.
- Renew the adoption into the Safety Element of the General Plan each time an LHMP is updated. The adoption expires when the LHMP expires, and must be renewed once the LHMP update has received final approval from FEMA.
- The date of the AB 2140 adoption resolution must be on or before the Legislature approves CDAA funding after a specific disaster.
- In determining AB 2140 compliance, the local hazard mitigation plan shall incorporate, at a minimum, all elements required under federal guidance, regulation, and statute for local hazard mitigation plans. (Section 65302.6(a))

Revised November 7, 2017

Siskiyou County

Hazard Mitigation Plan

Volume 1: Planning-Area-Wide Elements

DRAFT

August 2018

(241 Pages)



Siskiyou County
HAZARD MITIGATION PLAN
VOLUME 1: PLANNING-AREA-WIDE ELEMENTS

DRAFT
AUGUST 2018

Siskiyou County
Hazard Mitigation Plan;
Volume 1—Planning-Area-Wide Elements

TABLE OF CONTENTS

Executive Summary	ES-1
Plan Purpose.....	ES-1
The Planning Partnership	ES-1
Plan Development Methodology	ES-1
Mitigation Guiding Principle, Goals and Objectives	ES-3
Mitigation Initiatives.....	ES-3
Conclusion	ES-4

PART 1 — THE PLANNING PROCESS

Chapter 1. Introduction to the Planning Process.....	1-1
1.1 Why Prepare This Plan?.....	1-1
1.1.1 The Big Picture	1-1
1.1.2 Local Concerns	1-1
1.1.3 Purposes for Planning	1-2
1.2 Who Will Benefit From This Plan?.....	1-2
1.3 How to Use This Plan	1-2
Chapter 2. Plan Methodology	2-1
2.1 Grant Funding	Error! Bookmark not defined.
2.2 Formation of the Planning Team.....	2-1
2.3 Establishment of the Planning Partnership.....	2-1
2.4 Defining the Planning Area.....	2-2
2.5 The Steering Committee	2-2
2.6 Coordination with Other Agencies.....	2-4
2.7 Review of Existing Programs.....	2-5
2.8 Plan Development Chronology/Milestones	2-5
Chapter 3. Public Involvement	3-1
3.1 Strategy	3-1
3.1.1 Stakeholders and the Steering Committee	3-1
3.1.2 Questionnaire	3-1
3.1.3 Opportunity for Public Comment.....	3-2
3.2 Public Involvement Results.....	3-7
Chapter 4. Guiding Principle, Goals and Objectives	4-1
4.1 Guiding Principle	4-1
4.2 Goals	4-1
4.3 Objectives.....	4-1
Chapter 5. Plan Adoption	5-1
Chapter 6. Plan Maintenance Strategy	6-1
6.1 Plan Implementation	6-1
6.2 Steering Committee.....	6-1
6.3 Annual Progress Report	6-2

6.4	Plan.....	6-3
6.5	Continuing Public Involvement	6-3
6.6	Incorporation into Other Planning Mechanisms	6-3

PART 2 — RISK ASSESSMENT

Chapter 7. Identified Hazards and Risk Assessment Methodology7-1

7.1	Identified Hazards	7-1
7.1.1	Hazards of Concern.....	7-1
7.1.2	Hazards of Interest	7-1
7.1.3	Climate Change.....	7-2
7.2	Methodology	7-2
7.3	Risk Assessment Tools	7-3
7.3.1	Dam Failure, Earthquake and Flood—HAZUS-MH	7-3
7.3.2	Landslide, Severe Weather, Volcano and Wildfire.....	7-4
7.3.3	Drought	7-5
7.3.4	Limitations	7-5

Chapter 8. Siskiyou County Profile.....7-1

8.1	Communities	7-2
8.2	Historical Overview	7-2
8.3	Physical Setting.....	7-3
8.3.1	Geology.....	7-3
8.3.2	Soils.....	7-4
8.3.3	Surface Water.....	7-4
8.3.4	Climate.....	7-5
8.4	Major Past Hazard Events.....	7-5
8.5	Critical Facilities and Infrastructure.....	7-6
8.6	Demographics	7-7
8.6.1	Siskiyou County Population Characteristics	7-8
8.6.2	Income.....	7-8
8.6.3	Age Distribution.....	7-9
8.6.4	Race, Ethnicity and Language.....	7-10
8.6.5	Disabled Populations.....	7-11
8.7	Economy	7-12
8.7.1	Industry, Businesses and Institutions	7-12
8.7.2	Employment Trends and Occupations	7-13
8.8	Future Trends in Development.....	7-14
8.9	Laws and Ordinances	7-14
8.9.1	Federal.....	7-14
8.9.2	State.....	7-16
8.9.3	Cities and County.....	7-19

Chapter 9. Dam Failure7-1

9.1	General Background.....	7-1
9.1.1	Causes of Dam Failure	7-1
9.1.2	Regulatory Oversight	7-2
9.2	Hazard Profile	7-3
9.2.1	Past Events	7-3
9.2.2	Location	7-3
9.2.3	Frequency.....	7-5
9.2.4	Severity	7-5

9.2.5	Warning Time	7-5
9.3	Secondary Hazards.....	7-6
9.4	Climate Change Impacts	7-6
9.5	Exposure.....	7-6
9.5.1	Population	7-6
9.5.2	Property.....	7-6
9.5.3	Critical Facilities	7-6
9.5.4	Environment.....	7-8
9.6	Vulnerability	7-9
9.6.1	Population	7-9
9.6.2	Property.....	7-9
9.6.3	Critical Facilities	7-9
9.6.4	Environment.....	7-10
9.7	Future Trends in Development.....	7-10
9.8	Scenario.....	7-10
9.9	Issues	7-10
Chapter 10. Drought.....		7-12
10.1	General Background.....	7-12
10.1.1	Drought in California	7-12
10.2	Hazard Profile	7-12
10.2.1	Past Events	7-13
10.2.2	Location	7-13
10.2.3	Frequency.....	7-17
10.2.4	Severity	7-17
10.2.5	Warning Time	7-17
10.3	Secondary Hazards.....	7-18
10.4	Climate Change Impacts	7-18
10.5	Exposure.....	7-19
10.6	Vulnerability	7-19
10.6.1	Population	7-19
10.6.2	Property.....	7-19
10.6.3	Critical Facilities	7-19
10.6.4	Environment.....	7-19
10.6.5	Economic Impact	7-20
10.7	Future Trends in Development.....	7-20
10.8	Scenario.....	7-20
10.9	Issues.....	7-20
Chapter 11. Earthquake		7-1
11.1	General Background.....	7-1
11.1.1	How Earthquakes Happen.....	7-1
11.1.2	Earthquake Classifications	7-2
11.1.3	Ground Motion.....	7-2
11.1.4	Effect of Soil Types	7-2
11.2	Hazard Profile	7-2
11.2.1	Past Events	7-5
11.2.2	Location	7-5
11.2.3	Frequency.....	7-6
11.2.4	Severity	7-8
11.2.5	Warning Time	7-8
11.3	Secondary Hazards.....	7-8

11.4	Climate Change Impacts	7-8
11.5	Exposure.....	7-9
11.5.1	Population	7-9
11.5.2	Property	7-9
11.5.3	Critical Facilities and Infrastructure.....	7-9
11.5.4	Environment.....	7-9
11.6	Vulnerability	7-9
11.6.1	Population	7-10
11.6.2	Property.....	7-10
11.6.3	Critical Facilities and Infrastructure.....	7-14
11.6.4	Environment.....	7-15
11.7	Future Trends in Development.....	7-15
11.8	Scenario.....	7-15
11.9	Issues	7-16
Chapter 12. Flood.....		7-1
12.1	General Background.....	7-1
12.1.1	Measuring Floods and Floodplains	7-1
12.1.2	Floodplain Ecosystems.....	7-2
12.1.3	Effects of Human Activities.....	7-2
12.1.4	Federal Flood Programs	7-2
12.2	Hazard Profile	7-4
12.2.1	Past Events	7-5
12.2.2	Location	7-8
12.2.3	Frequency.....	7-8
12.2.4	Severity	7-8
12.2.5	Warning Time	7-10
12.3	Secondary Hazards.....	7-10
12.4	Climate Change Impacts	7-10
12.5	Exposure.....	7-11
12.5.1	Population	7-11
12.5.2	Property.....	7-12
12.5.3	Critical Facilities and Infrastructure.....	7-12
12.5.4	Environment.....	7-17
12.6	Vulnerability	7-17
12.6.1	Population	7-17
12.6.2	Property.....	7-18
12.6.3	Critical Facilities and Infrastructure.....	7-20
12.6.4	Environment.....	7-20
12.7	Future Trends	7-21
12.8	Scenario.....	7-21
12.9	Issues	7-21
Chapter 13. Landslides and Other Earth Movements.....		7-1
13.1	General Background.....	7-1
13.2	Hazard Profile	7-1
13.2.1	Past Events	7-3
13.2.2	Location	7-4
13.2.3	Frequency.....	7-5
13.2.4	Severity	7-5
13.2.5	Warning Time	7-5
13.3	Secondary Hazards.....	7-6

13.4	Climate Change Impacts	7-6
13.5	Exposure.....	7-6
13.5.1	Population	7-6
13.5.2	Property.....	7-6
13.5.3	Critical Facilities and Infrastructure.....	7-7
13.5.4	Environment.....	7-7
13.6	Vulnerability	7-8
13.6.1	Population	7-8
13.6.2	Property.....	7-8
13.6.3	Critical Facilities and Infrastructure.....	7-9
13.6.4	Environment.....	7-9
13.7	Future Trends in Development.....	7-9
13.8	Scenario.....	7-10
13.9	Issues.....	7-10
Chapter 14. Severe Weather.....		14-1
14.1	General Background.....	14-1
14.1.1	Thunderstorms	14-1
14.1.2	Damaging Winds.....	14-3
14.1.3	Cold Waves	14-4
14.2	Hazard Profile	14-5
14.2.1	Past Events	14-5
14.2.2	Location	14-8
14.2.3	Frequency.....	14-8
14.2.4	Severity	14-8
14.2.5	Warning Time	14-8
14.3	Secondary Hazards.....	14-8
14.4	Climate Change Impacts	14-8
14.5	Exposure.....	14-9
14.5.1	Population	14-9
14.5.2	Property.....	14-9
14.5.3	Critical Facilities and Infrastructure.....	14-9
14.5.4	Environment.....	14-9
14.6	Vulnerability	14-10
14.6.1	Population	14-10
14.6.2	Property.....	14-10
14.6.3	Critical Facilities and Infrastructure.....	14-10
14.6.4	Environment.....	14-11
14.7	Future Trends in Development.....	14-11
14.8	Scenario.....	14-11
14.9	Issues.....	14-11
Chapter 15. Volcano.....		15-1
15.1	General Background.....	15-1
15.1.1	Volcanos of Siskiyou County.....	15-1
15.1.2	Debris Avalanches	15-3
15.2	Hazard Profile	15-5
15.2.1	Past Events	15-5
15.2.2	Location	15-6
15.2.3	Frequency.....	15-6
15.2.4	Severity	15-7
15.2.5	Warning Time	15-7

15.3	Secondary Hazards	15-8
15.4	Climate Change Impacts	15-8
15.5	Exposure.....	15-8
15.5.1	Population	15-8
15.5.2	Property	15-9
15.5.3	Critical Facilities	15-9
15.5.4	Environment.....	15-9
15.6	Vulnerability	15-10
15.6.1	Population	15-10
15.6.2	Property	15-10
15.6.3	Critical Facilities	15-10
15.6.4	Environment.....	15-11
15.7	Future Trends in Development.....	15-11
15.8	Scenario.....	15-11
15.9	Issues	15-11
Chapter 16. Wildfire		16-1
16.1	General Background.....	16-1
16.2	Hazard Profile	16-3
16.2.1	Past Events	16-4
16.2.2	Location	16-4
16.2.3	Frequency.....	16-6
16.2.4	Severity	16-6
16.2.5	Warning Time	16-7
16.3	Secondary Hazards.....	16-7
16.4	Climate Change Impacts	16-7
16.5	Exposure.....	16-8
16.5.1	Population	16-8
16.5.2	Property.....	16-8
16.5.3	Critical Facilities and Infrastructure.....	16-8
16.5.4	Environment.....	16-8
16.6	Vulnerability	16-9
16.6.1	Population	16-9
16.6.2	Property	16-10
16.6.3	Critical Facilities and Infrastructure.....	16-10
16.7	Future Trends in Development.....	16-10
16.8	Scenario.....	16-10
16.9	Issues	16-11
Chapter 17. Planning Area Risk Ranking		17-1
17.1	Probability of Occurrence	17-1
17.2	Impact.....	17-1
17.3	Risk Rating and Ranking	17-4
Chapter 18. Other Hazards of Interest		18-1
18.1	Air Quality/Smoke Pollution.....	18-1
18.2	Avalanches	18-1
18.2.1	How Avalanches Occur.....	18-1
18.2.2	Local Avalanche History.....	18-2
18.2.3	Potential Avalanche Scenario	18-3
18.3	Energy Shortages	18-3
18.4	Fish Disease	18-3

18.5 Hazardous Materials..... 18-4
18.6 Noxious Weeds 18-5

PART 3 — MITIGATION STRATEGY

Chapter 19. Mitigation Alternatives 19-1
Chapter 20. Area-Wide Mitigation Initiatives 20-1
20.1 Selected County-Wide Mitigation Initiatives..... 20-1
20.2 Benefit/Cost review..... 20-1
20.3 County-Wide Action Plan Prioritization 20-3
References 1

Appendices

- A. Acronyms and Definitions
- B. Public Outreach
- C. Example Progress Report
- D. Plan Adoption Resolutions from Planning Partners

LIST OF TABLES

<i>No.</i>	<i>Title</i>	<i>Page No.</i>
Table ES-1.	Action Plan—Countywide Mitigation Initiatives	ES-5
Table 2-1.	Planning Partners	2-2
Table 2-2.	Steering Committee Members	2-4
Table 2-3.	Plan Development Milestones	2-6
Table 3-1.	Summary of Public Meetings	3-8
Table 8-1.	Presidential Disaster Declarations for Hazard Events in siskiyou County	7-5
Table 8-2.	Critical Facilities by Jurisdiction and Category	7-7
Table 8-3.	Critical Infrastructure by Jurisdiction and Category	7-7
Table 8-4.	City and County Population Data	7-9
Table 8-5.	Disability Status of Non-Institutionalized Population	7-12
Table 9-1.	Dams in Siskiyou County	7-4
Table 9-2.	Corps of Engineers Hazard Potential Classification	7-5
Table 9-3.	Population at Risk from Dam Failure	7-7
Table 9-4.	Value of Property Exposed to Dam Failure	7-7
Table 9-5.	Critical Facilities in Dam Failure Inundation Areas	7-8
Table 9-6.	Critical Infrastructure in Dam Failure Inundation Areas	7-8
Table 9-7.	Loss Estimates for Dam Failure	7-9
Table 11-1.	Earthquake Magnitude Classes	7-3
Table 11-2.	Earthquake Magnitude and Intensity	7-3
Table 11-3.	Mercalli Scale and Peak Ground Acceleration Comparison	7-4
Table 11-4.	NEHRP Soil Classification System	7-4
Table 11-5.	Historical Earthquakes Impacting the Planning area	7-5
Table 11-6.	Recent Earthquakes Magnitude 5.0 or Greater Felt Within Siskiyou County	7-7
Table 11-7.	Estimated Earthquake Impact on Person and Households	7-10
Table 11-8.	Earthquake Building Loss Potential—Probabilistic	7-11
Table 11-9.	Estimated Earthquake-Caused Debris	7-11
Table 11-10.	Age of Structures in Siskiyou County	7-12
Table 11-11.	Critical Facility Vulnerability to 100-Year Earthquake Event	7-14
Table 11-12.	Functionality of Critical Facilities for 100-Year Event	7-14
Table 12-1.	Siskiyou County Flood Events	7-6
Table 12-2.	Summary of Peak Discharges Within Siskiyou County	7-9
Table 12-3.	Area and Structures Within the 100-Year Floodplain	7-12
Table 12-4.	Area and Structures Within the 500-Year Floodplain	7-13
Table 12-5.	Value of Exposed Buildings Within 100-Year Floodplain	7-13
Table 12-6.	Value of Exposed Buildings Within 500-Year Floodplain	7-14
Table 12-7.	Critical Facilities in the 100-Year Floodplain	7-14
Table 12-8.	Critical Facilities in the 500-Year Floodplain	7-15
Table 12-9.	Critical Infrastructure in the 100-Year Floodplain	7-15
Table 12-10.	Critical Infrastructure in the 500-Year Floodplain	7-15
Table 12-11.	Estimated Flood Loss for the 100-Year Flood Event	7-18
Table 12-12.	Flood Insurance Statistics for Siskiyou County	7-19
Table 12-13.	Repetitive Loss Properties in Siskiyou County	Error! Bookmark not defined.
Table 13-1.	Siskiyou County Structures in all Landslide Risk Areas	7-7
Table 13-2.	Critical Facilities Exposed to Landslide Hazards	7-8
Table 13-3.	Estimated Building Losses in the Landslide Risk Areas	7-9

Table 14-1. Severe Weather Events Impacting Planning Area Since 1990	14-5
Table 14-2. Buildings Vulnerable to Severe Weather Hazard	14-10
Table 15-1. Structures Exposed to Volcano/Lahar/Debris Avalanche	15-9
Table 15-2. Critical Facilities Exposed to Lahar Hazards	15-10
Table 16-1. Fires by Cause—Siskiyou County Unit, 2005-2010	16-4
Table 16-2. Population Estimates Within Fire Hazard Severity Zones	Error! Bookmark not defined.
Table 16-3. Planning Area Structures Exposed to Moderate Wildfire Hazards.....	Error! Bookmark not defined.
Table 16-4. Planning Area Structures Exposed to High Wildfire Hazards.....	Error! Bookmark not defined.
Table 16-5. Planning Area Structures Exposed to Very High Wildfire Hazards.....	Error! Bookmark not defined.
Table 16-6. Critical Facilities Exposed to Wildfire Hazards	Error! Bookmark not defined.
Table 16-7. Buildings Vulnerable to Wildfire Hazard.....	Error! Bookmark not defined.
Table 17-1. Probability of Hazards.....	17-1
Table 17-2. Impact on People from Hazards	17-3
Table 17-3. Impact on Property from Hazards	17-3
Table 17-4. Impact on Economy from Hazards.....	17-4
Table 17-5. Hazard Risk Rating.....	17-4
Table 17-6. Hazard Risk Ranking.....	17-5
Table 19-1. Catalog of Mitigation Alternatives—Dam Failure	19-2
Table 19-2. Catalog of Mitigation Alternatives—Drought.....	19-3
Table 19-3. Catalog of Mitigation Alternatives—Earthquake	19-4
Table 19-4. Catalog of Mitigation Alternatives—Flood.....	19-5
Table 19-5. Catalog of Mitigation Alternatives—Landslide	19-7
Table 19-6. Catalog of Mitigation Alternatives—Severe Weather.....	19-8
Table 19-7. Catalog of Risk Reduction Measures—Volcano	19-9
Table 19-8. Catalog of Mitigation Alternatives—Wildfire.....	19-10
Table 20-1. Action Plan—Countywide Mitigation Initiatives	20-2
Table 20-2. Prioritization of Countywide Mitigation Initiatives	20-3

LIST OF FIGURES

<i>No.</i>	<i>Title</i>	<i>Page No.</i>
Figure 2-1.	Hazard Mitigation Planning Area	2-3
Figure 3-1.	Sample Pages from Questionnaire Distributed to the Public	3-2
Figure 3-2.	Yreka Public Meeting Photo 1	3-3
Figure 3-3.	Yreka Public Meeting Photo 2	3-3
Figure 3-4.	Mt. Shasta Public Meeting Photo 3.....	3-4
Figure 3-5.	Mt. Shasta Public Meeting Photo 4.....	3-4
Figure 3-6.	Open House Flyers Posted Throughout County	3-5
Figure 3-7.	News Article from the May 4, 2011 Mount Shasta Area Newspapers.....	3-6
Figure 3-8.	Sample Page from Hazard Mitigation Plan Web Site	Error! Bookmark not defined.
Figure 8-1.	Main Features of Siskiyou County.....	7-1
Figure 8-2.	California and Siskiyou County Population Growth.....	7-8
Figure 8-3.	Siskiyou County Age Distribution	7-10
Figure 8-4.	Siskiyou County Race Distribution.....	7-11

Figure 8-5. Industry in Siskiyou County 7-12

Figure 8-6. California and Siskiyou County Unemployment Rate 7-13

Figure 8-7. Occupations in Siskiyou County 7-14

Figure 9-1. Historical Causes of Dam Failure 7-2

Figure 10-1. Palmer Z Index Short-Term Drought Conditions (March 2011)..... 7-14

Figure 10-2. Palmer Drought Index Long-Term Drought Conditions (March 2011)..... 7-15

Figure 10-3. Palmer Hydrological Drought Index Long-Term Hydrologic Conditions (March 2011)
..... **Error! Bookmark not defined.**

Figure 10-4. 24-Month Standardized Precipitation Index (April 2009—March 2011) 7-16

Figure 10-5. Dry Hills and Shrub Lands in Northern Siskiyou County..... 7-18

Figure 11-1. PGA with 2-Percent Probability of Exceedance in 50 Years 7-7

Figure 11-2. The Creamery Building (1912) in Fort Jones..... 7-13

Figure 11-3. Historic Etna Museum (Original Town Hall)..... 7-13

Figure 11-4. Soft-Story Damage from Earthquake 7-13

Figure 12-1. CRS Communities by Class Nationwide as of May 1, 2010..... 7-4

Figure 12-2. The Broad, Flat Scott Valley Is Subject to Shallow Flooding 7-10

Figure 12-3. Horse Creek Road, January 4, 2006 7-16

Figure 13-1. Deep Seated Slide..... 7-2

Figure 13-2. Shallow Colluvial Slide..... 7-2

Figure 13-3. Bench Slide 7-2

Figure 13-4. Large Slide 7-2

Figure 13-5. California State Route 3—Fort Jones Road Rock Slide Area..... 7-4

Figure 14-1. The Thunderstorm Life Cycle 14-2

Figure 14-2. Severe Weather Probabilities in Warmer Climates..... 14-9

Figure 15-1. The Formation of Cascade Volcanoes..... 15-2

Figure 15-2. Mount Shasta..... 15-2

Figure 15-3. Extent of Mount Shasta Debris Avalanche Deposits 15-4

Figure 15-4. Hummocky, Volcanic Deposits from Mount Shasta Debris Avalanche 15-5

Figure 15-5. Past Eruptions in the Cascade Range 15-6

Figure 16-1. Wildfire-Prone Mountains in Northern Siskiyou County **Error! Bookmark not defined.**

Figure 16-2. CAL FIRE Station in Fort Jones, California 16-3

LIST OF MAPS

Maps are inserted at the end of each chapter

8-1 Critical Facilities

- 11-1 Peak Ground Acceleration; USGS 100-Year Probabilistic Event
- 11-2 Peak Ground Acceleration; USGS 500-Year Probabilistic Event
- 11-3 Klamath Falls Peak Ground Acceleration; 6.5 Magnitude Scenario
- 11-4 National Earthquake Hazard Reduction Program (NEHRP) Soil Site Classes

12-1 Special Flood Hazard Areas

12-2 Repetitive Loss Areas

13-1 Landslide Risk Areas Mapped by Siskiyou County

13-2 Landslide Risk Areas Mapped by Klamath National Forest

14-1 Average Annual Precipitation

14-2 Average Annual Maximum Temperature

14-3 Average Annual Minimum Temperature

14-4 Wind Power

15-1 Lahar Inundation Zones

16-1 Wildfire Hazard Areas

ACKNOWLEDGMENTS

Project Manager

Jasen Vela
Office of Emergency Services Deputy Director
Siskiyou County
806 S. Main Street
Yreka, CA 96097
Phone: 530-841-2155
FAX: 530-841-4076
Email: jvela@co.siskiyou.ca.us

For questions or comments please email Jasen.

Other Siskiyou County Staff

Christy Dawson, Siskiyou County Planning Department
Tom Morton, Siskiyou County Public Health
Holly Bunn, GIS specialist Siskiyou County Ag Department
Katie Eastman, Siskiyou County Public Health
Mike Mallory, Siskiyou County Assessor

Consultants

Robert Goyeneche, CAL OES
Greg Routh, CAL FIRE
Phil Anzo, CAL FIRE
Jackie Nushi, Local Resident

Special Acknowledgments

The development of this plan would not have been possible without the commitment to this process by the Siskiyou County Hazard Mitigation Plan Steering Committee, the Planning Partners, the stakeholders and citizens of Siskiyou County. The dedication of the Steering Committee volunteers who graciously allocated their time to this process is greatly appreciated. Siskiyou County citizens and all who participated in the public process are commended for their participation and contributions to this planning process.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Disaster Mitigation Act (DMA) is federal legislation enacted to promote proactive pre-disaster planning as a condition of receiving financial assistance under the Robert T. Stafford Act. The DMA emphasizes planning for disasters before they occur. It established a Pre-Disaster Mitigation Program and new requirements for the national post-disaster Hazard Mitigation Grant Program.

The DMA encourages state and local authorities to work together on pre-disaster planning, and it promotes sustainability as a strategy for disaster resistance. Sustainable hazard mitigation includes the sound management of natural resources, local economic and social resiliency, and the recognition that hazards and mitigation must be understood in the largest possible social and economic context. The enhanced planning network called for by the DMA helps local governments articulate accurate needs for mitigation, resulting in faster allocation of funding and more cost-effective risk-reduction projects.

Siskiyou County and nine local government planning partners worked together to create this Siskiyou County Hazard Mitigation Plan, fulfilling the DMA requirements for all participating partners. This effort was funded by a Hazard Mitigation Planning grant from the Federal Emergency Management Agency (FEMA), administered by the California Office of Emergency Services (Cal OES).

PLAN PURPOSE

Several factors initiated this planning effort for Siskiyou County and its planning partners:

- The Siskiyou County area has significant exposure to numerous natural hazards that have caused millions of dollars in past damage.
- Local resources for risk reduction are limited. Being able to leverage federal financial assistance is paramount to successful hazard mitigation in the area.
- The partners wanted to be proactive in preparing for the impacts of natural hazards

With these factors in mind, Siskiyou County committed to meeting with local partners and move forward with planning for the future and continuing to evaluate our risk in county. We set down as a committee to reevaluate our risk and perform a risk assessment sense the plan was developed in 2012. After closely looking at past events and disasters that have plagued the county in the past 5 years we determined that the risk have not changed. We still are dealing with the same hardships as we were in the past.

THE PLANNING PARTNERSHIP

A planning partnership was assembled consisting of Siskiyou County, nine incorporated cities and four special purpose districts, all defined as “local governments” under the DMA. This partnership represents approximately 30 percent of the eligible local governments in the planning area. Jurisdictional annexes are included in Volume 2 of this plan for the 10 planning partners who completed all required phases of the plan’s development. Jurisdictions not covered by this process can link to this plan at a future date by following prescribed linkage procedures identified in Appendix B of Volume 2.

PLAN DEVELOPMENT METHODOLOGY

Under Chapter 44 of the Code of Federal regulations (44 CFR), a local hazard mitigation plan must include the following:

- A description of the planning process

- Risk assessment (applicable to each planning partner)
- Mitigation strategy
 - Goals
 - Review of alternatives
 - Prioritized “action plan”
- A plan maintenance section
- Documentation of adoption.

The Siskiyou County Hazard Mitigation Plan was developed as follows to meet federal requirements:

- **Phase 1, Organize Resources**— A Planning Partnership was formed, and a 10-member Steering Committee was assembled to oversee development of the plan, consisting of planning partners and other planning area stakeholders. A multimedia public involvement strategy, centered on the plan being put on the county website for public review, was implemented. Coordination occurred with local, state and federal agencies involved in hazard mitigation. A review was conducted of existing programs in the planning area that may support hazard mitigation actions.
- **Phase 2, Hazard Identification & Profiling; Phase 3, Asset Inventory and Vulnerability Analysis**—Risk assessment is the process of assessing the vulnerability of people, buildings and infrastructure to natural hazards by estimating potential hazard-related loss of life, personal injury, economic loss, and property damage. It focuses on the following:
 - Hazard identification and profiling
 - The impact of hazards on physical, social and economic assets
 - Vulnerability identification
 - Estimates of the cost of damage or costs that can be avoided through mitigation.
- **Phase 4, Develop Mitigation Initiatives**—This phase included development of a guiding principle, goals and measurable objectives; comprehensive review of mitigation alternatives; development of a benefit/cost review methodology for prioritizing actions; ranking of risk to support prioritization of actions; review of jurisdiction-specific capabilities; identification of recommended mitigation initiatives (actions); and prioritization of the actions.
- **Phase 5, Prepare Draft Plan**—The Steering Committee assembled key information from Phases 1 and 2 into a document to meet the DMA requirements. The document was produced in two volumes: Volume 1 including all information that applies to the entire planning area; and Volume 2, including jurisdiction-specific information.
- **Phase 6, Plan Review and Revision**—The draft plan was circulated to planning partners, stakeholders, and agencies to solicit comment on the recommended actions. The plan was presented to the public for review and comment via the public involvement strategy developed under Phase 1. The means of engaging the public were web-based tools. A pre-adoption review draft of the plan was prepared along with a DMA compliance “crosswalk,” which was submitted to Cal OES for review and approval. Cal OES will forward the plan to FEMA Region IX for approval upon determining that the plan is compliant with federal requirements.

- **Phase 7, Plan Adoption and Submittal**— Final plan adoption occurs once pre-adoption approval has been granted by Cal OES and FEMA. Each planning partner is required to adopt the plan according to its own formal adoption protocol.

MITIGATION GUIDING PRINCIPLE, GOALS AND OBJECTIVES

The following guided the Steering Committee and the Planning Partners in selecting the initiatives contained in this plan:

- **Guiding Principle**—Through partnerships among local jurisdictions, identify and reduce the vulnerability to natural hazards in order to protect the health, safety, quality of life, environment and economy of the diverse communities within Siskiyou County.
- **Goals:**
 - 1. Protect life, health, property and the environment.
 - 2. Increase public awareness of vulnerability and enable the public to mitigate, prepare for, respond to and recover from the impacts of hazards and disasters.
 - 3. Reduce the adverse impacts of disasters on the economy.
 - 4. Improve cooperative emergency management capabilities among all entities.
 - 5. Facilitate the development and implementation of long-term, cost-effective and environmentally sound mitigation projects and programs
- **Objectives:**
 - 1. Eliminate or minimize disruption of local government operations caused by natural hazards.
 - 2. Increase resilience of (or protect and maintain) infrastructure and critical facilities.
 - 3. Consider the impacts of natural hazards on future land uses within the planning area.
 - 4. Sustain reliable local emergency operations and facilities during and after a disaster.
 - 5. Educate the public on the risk from natural hazards and increase awareness, preparation, mitigation, response, and recovery activities.
 - 6. Retrofit, relocate or elevate structures in high hazard areas including those known to be repetitively damaged.
 - 7. Improve understanding of the location, causes and potential impacts of natural hazards.
 - 8. Encourage coordination among all jurisdictions, adjoining communities and stakeholders.
 - 9. Develop or improve early warning emergency response systems, communications and evacuation procedures.

MITIGATION INITIATIVES

In this document, mitigation initiatives are defined as activities designed to reduce or eliminate losses resulting from natural hazards. The mitigation initiatives are the key element of the hazard mitigation plan. Implementing the initiatives will help the Planning Partners become disaster-resistant.

Although grant funding eligibility was a driving influence for preparing this plan, the plan's purpose goes beyond access to federal funding. It was important to the Planning Partnership and the Steering

**TABLE ES-1.
ACTION PLAN—COUNTYWIDE MITIGATION INITIATIVES**

Hazards Addressed	Lead Agency	Possible Funding Sources or Resources	Time Line ^a	Objectives
CW-1 —Continue to maintain a countywide hazard mitigation plan website to house the plan and plan updates, in order to provide the public an opportunity to monitor plan implementation and progress. Each planning partner may support the initiative by including an initiative in its action plan and creating a web link to the website.				
All Hazards	County OES	General Fund	Short term/ongoing	1, 5, 7, 8
CW-2 —Leverage public outreach partnering capabilities to inform and educate the public about hazard mitigation and preparedness.				
All Hazards	County OES	General Fund	Short term/ongoing	1, 5, 7, 8, 9
CW-3 —Coordinate all mitigation planning and project efforts, including grant application support, to maximize all resources available to the planning partnership.				
All Hazards	County OES	General Fund, FEMA mitigation grants	Short term/ongoing	1, 2, 3, 4, 5, 7, 8, 9
CW-4 —Support the collection of improved data (hydrologic, geologic, topographic, volcanic, historical, etc.) to better assess risks and vulnerabilities.				
All Hazards	County OES	General Fund, FEMA mitigation grants	Short term/ongoing	1, 3, 5, 7, 8
CW-5 —Provide coordination and technical assistance in grant application preparation that includes assistance in cost vs. benefit analysis for grant-eligible projects.				
All Hazards	County OES	General Fund, FEMA mitigation grants	Short term/ongoing	1, 8
CW-6 —Where appropriate, support retrofitting, purchase, or relocation of structures or infrastructure located in hazard-prone areas to protect structures/infrastructure from future damage, with repetitive loss and severe repetitive loss properties as priority when applicable.				
All Hazards	County OES	FEMA mitigation grants	Long term	1, 2, 4, 5, 6
CW-7 — Continue to maintain the Steering Committee as a viable committee to monitor the progress of the hazard mitigation plan, provide technical assistance to Planning Partners and oversee the update of the plan as necessary.				
All Hazards	County OES	General Fund	Short term/ongoing	1, 8
CW-8 — In areas of the County with urban/wildland fire interface exposure, continue to promote access for ingress and egress as part of a defensible space initiative.				
Wildfire	Siskiyou Area Fire Safe Council	FEMA mitigation Grants, Fire Safe Council funding sources	Short term/ongoing	1,5,7,8,9
CW-9 — Promote landscape approach to fuel reduction as part of a defensible space initiative in areas with high wildfire exposure.				
Wildfire	Siskiyou Area Fire Safe Council	FEMA mitigation Grants, Fire Safe Council funding sources	Short term/ongoing	1,5,7,8,9

Committee to look at initiatives that will work through all phases of emergency management. Some of the initiatives outlined in this plan are not grant eligible—grant eligibility was not the focus of the selection. Rather, the focus was the initiatives' effectiveness in achieving the goals of the plan and whether they are within each jurisdiction's capabilities.

This planning process resulted in the identification 156 mitigation actions to be targeted for implementation by the Planning Partners. Jurisdiction-specific initiatives are listed in Volume 2 of this plan. In addition, a series of countywide initiatives were identified by the Steering Committee and the Planning Partnership. These are initiatives that benefit the whole partnership, to be implemented by pooling resources based on capability. These initiatives are summarized in Table ES-1.

CONCLUSION

Full implementation of the recommendations of this plan will take time and resources. The measure of the plan's success will be the coordination and pooling of resources within the Planning Partnership. Keeping this coordination and communication intact will be the key to the successful implementation of this plan. Teaming together to seek financial assistance at the state and federal level will be a priority to initiate projects that are dependent on alternative funding sources. This plan was built upon the effective leadership of a multi-disciplined Steering Committee and a process that relied heavily on public input and support. The plan will succeed for the same reasons.

Each jurisdiction wishing to join the planning partnership was asked to provide a “letter of intent to participate” that designated a point of contact and confirmed the jurisdiction’s commitment to the process and understanding of expectations. Procedures have been established for any jurisdiction wishing to link to this plan in the future (see Volume 2). Letters of intent were received from 14 planning partners, establishing a 15-member planning partnership including the County (see Table 2-1).

Jurisdiction	Point of Contact	Title
Siskiyou County	Jasen Vela	OES Deputy Director
City of Dorris	Wayne Frost	Fire Chief
City of Dunsmuir	Mark Brannigan	City Manager
City of Etna	Sara Griggs	City Clerk
City of Montague	Dave Dunn	Public Works Supervisor
City of Mt. Shasta	Juliana Lucchesi	City Planner
City of Tulelake	Jenny Coelho	City Clerk
City of Weed	Ron Stock	City Administrator
City of Yreka	Steve Baker	City Manager
Lake Shastina Community Services District	Mike Wilson Robert Moser	General Manager
McCloud Community Services District	Kimberly Paul	General Manager

2.3. DEFINING THE PLANNING AREA

The defined planning area for this planning effort consists of all of Siskiyou County as shown in Figure 2-1. All partners to this plan have jurisdictional authority over specific locations within this planning area.

2.4. THE STEERING COMMITTEE

Hazard mitigation planning enhances collaboration and support among diverse parties whose interests can be affected by hazard losses. A steering committee was formed to oversee development of this plan. Committee members included key planning partner staff and other planning area stakeholders. The planning team assembled a list of interests within the planning area that could have recommendations for the plan or be impacted by its recommendations. The partnership confirmed a committee of 14 members at the kickoff meeting. Table 2-2 lists the committee members.

8.1 COMMUNITIES

Some of the county's cities and towns are located along major transportation corridors, including Interstate 5, while others are located along small rural highways that connect the scenic valleys:

Yreka, located on Interstate 5 and near State Routes 96 and 3, has the largest population in the county. Yreka was a gold rush boomtown and its downtown district, museum and monuments attract many tourists each year.

Mount Shasta is the County's second largest city.

The City of Dunsmuir is a hub for tourism and once was an important railroad yard.

The city of Montague is home to a historic preservation district, an annual hot air balloon fair and several old-fashioned farms and ranches.

Tulelake, in the eastern corner of the county, is known for its volcanic cinder cones, lava bed landscapes and a wildlife refuge visited by millions of migrating birds.

Weed is named after a lumber mill pioneer, although the timber industry has scaled back. The town's economy is now supported by tourism, the College of the Siskiyous and the Crystal Geyser bottled water company.

The community of Dorris is located in the Butte Valley at the California-Oregon boundary.

Surrounded by ranch lands in the Scott Valley, the City of Etna attracts anglers in search of stillwater rainbow trout.

The Scott River runs through the Town of Fort Jones, which is an historical military post.

Significant unincorporated communities in Siskiyou County include Callahan, Edgewood, Forks of Salmon, Gazelle, Greenview, Grenada, Happy Camp, Hornbrook, Horse Creek, Klamath River, Lake Shastina, Macdoel, McCloud, Sawyers Bar, Scott Bar, Seiad Valley, and Somes Bar.

8.2 HISTORICAL OVERVIEW

The presence of Native Americans in Siskiyou County has been traced back over 7,000 years, and oral histories of local tribes extend even further back. The historical distribution of tribes in the area was as follows:

The area north of Mount Shasta and west into Scott Valley was the territory of the Shasta Indians. The tribe had a vast land base encompassing a substantial proportion of Northern California and Southern Oregon.

The Karuk Tribe lived along the Klamath River and across the Marble and Salmon Mountains in the Scott Valley area. People of the Karuk Tribe lived sustainably within their ancestral lands using land management techniques such as burning. The rivers and surrounding forests sustained the population with fish, game and acorns.

The traditional homelands of the Modocs were east of Mount Shasta and up into Butte Valley and the Klamath Basin. In the late 1800s, the federal government relocated the Modoc people to Oklahoma reservations where the majority of tribe remains.

The Wintu people lived south of Mount Shasta, including most of Shasta and Trinity Counties.

The Achomawi and Klamath native peoples had some historical territory within what is now Siskiyou County.

15.5.2 Property

Most of the County would be exposed to ash fall and tephra accumulation in the event of a volcanic eruption. Property located along the lahar inundation areas would be exposed to lahar flows as well as a potential debris avalanche (see Figure 15-3). Table 15-1 lists the total number of Siskiyou County structures located in the lahar zones or debris avalanche zones and their values. The majority of the properties exposed to lahar are in unincorporated Siskiyou County. The Cities of Weed and Montague as well as Lake Shastina CSD could have significant exposure to debris avalanches.

**TABLE 15-1.
STRUCTURES EXPOSED TO VOLCANO/LAHAR/DEBRIS AVALANCHE**

	Buildings Exposed	Assessed Value			% of Total Assessed Value
		Structure	Contents	Total	
Dorris	0	0	0	0	0
Dunsmuir	0	0	0	0	0
Etna	0	0	0	0	0
Fort Jones	0	0	0	0	0
Montague	558 ^a	\$41,485,718	\$30,267,898	\$71,754,174	100.00%
Mt. Shasta	0	0	0	0	0
Tulelake	0	0	0	0	0
Weed	1,003 ^a	\$125,492,838	\$108,474,307	\$233,968,148	100.00%
Yreka	0	0	0	0	0
Unincorporated	2,862	\$389,519,391	\$287,823,099	\$677,345,352	25.87%
Total	4,423	\$556,497,947	\$426,565,304	\$983,067,674	22.37%

a. Structures exposed to potential debris avalanches (see Figure 15-3).

15.5.3 Critical Facilities

Infrastructure exposed to lahar inundation includes bridges that cross the Shasta and Little Shasta Rivers in the lahar zone. All transportation routes are exposed to ash fall and tephra accumulation, which could create hazardous driving conditions on roads and highways and hinder evacuations and response. Seventeen school facilities and six fire stations are exposed to lahar outflow zones. Table 15-2 summarizes the exposed critical facilities in the County.

15.5.4 Environment

The environment is highly exposed to the effects of a volcanic eruption. Even if ash fall from a volcanic eruption were to fall elsewhere, it could still be spread throughout the County by the surrounding rivers and streams. A volcanic blast would expose the local environment to many effects such as lower air quality, and many other elements that could harm local vegetation and water quality.

Siskiyou County
HAZARD MITIGATION PLAN
VOLUME 2: PLANNING PARTNER ANNEXES

DRAFT

August 2018

(242 Pages)

Prepared for:
Siskiyou County Office of Emergency Services
806 South Main
Yreka, California 96097

**Siskiyou County
Hazard Mitigation Plan;
Volume 2—Planning Partner Annexes**

TABLE OF CONTENTS

PART 1— INTRODUCTION	1
Chapter 1. Planning Partner Participation.....	1-1
1.1. Background	1-1
1.2. The Planning Partnership	1-1
1.3. Annex-Preparation Process	1-3
1.4. Final Coverage Under the Plan	1-6
PART 2— ANNEXES FOR MUNICIPALITIES	1
Chapter 2. Unincorporated Siskiyou County Annex.....	2-1
2.1. Hazard Mitigation Plan Point of Contact	2-1
2.2. Jurisdiction Profile	2-1
2.3. Jurisdiction-Specific Natural Hazard Event History	2-3
2.4. Hazard Risk Ranking	2-4
2.5. Capability Assessment	2-4
2.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives	2-4
2.7. Future Needs to Better Understand Risk/Vulnerability	2-4
2.8. Hazard Area Extent and Location	2-4
Chapter 3. City of Dorris Annex	3-1
3.1. Hazard Mitigation Plan Point of Contact	3-1
3.2. Jurisdiction Profile	3-1
3.3. Jurisdiction-Specific Natural Hazard Event History	3-2
3.4. Hazard Risk Ranking	3-2
3.5. Capability Assessment	3-2
3.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives	3-2
3.7. Future Needs to Better Understand Risk/Vulnerability	3-3
3.8. Additional Comments	3-3
3.9. Hazard Area Extent and Location	3-3
Chapter 4. City of Etna Annex	4-1
4.1. Hazard Mitigation Plan Point of Contact	4-1
4.2. Jurisdiction Profile	4-1
4.3. Jurisdiction-Specific Natural Hazard Event History	4-2
4.4. Hazard Risk Ranking	4-2
4.5. Capability Assessment	4-3
4.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives	4-3
4.7. Hazard Area Extent and Location	4-3
Chapter 5. Town of Fort Jones Annex	5-1
5.1. Hazard Mitigation Plan Point of Contact	5-1

5.2. Jurisdiction Profile	5-1
5.3. Jurisdiction-Specific Natural Hazard Event History	5-2
5.4. Hazard Risk Ranking	5-2
5.5. Capability Assessment	5-2
5.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives	5-2
5.7. Hazard Area Extent and Location.....	5-3
Chapter 6. City of Mt. Shasta Annex	9
6.1. Hazard Mitigation Plan Point of Contact.....	Error! Bookmark not defined.
6.2. Jurisdiction Profile.....	Error! Bookmark not defined.
6.3. Jurisdiction-Specific Natural Hazard Event History	Error! Bookmark not defined.
6.4. Hazard Risk Ranking	Error! Bookmark not defined.
6.5. Capability Assessment	Error! Bookmark not defined.
6.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives.....	Error! Bookmark not defined.
6.7. Future Needs to Better Understand Risk/Vulnerability	Error! Bookmark not defined.
6.8. Hazard Area Extent and Location.....	Error! Bookmark not defined.
Chapter 7. City of Tulelake Annex	7-1
7.1. Hazard Mitigation Plan Point of Contact.....	Error! Bookmark not defined.
7.2. Jurisdiction Profile.....	Error! Bookmark not defined.
7.3. Jurisdiction-Specific Natural Hazard Event History	Error! Bookmark not defined.
7.4. Hazard Risk Ranking	Error! Bookmark not defined.
7.5. Capability Assessment	Error! Bookmark not defined.
7.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives.....	Error! Bookmark not defined.
7.7. Future Needs to Better Understand Risk/Vulnerability	Error! Bookmark not defined.
7.8. Additional Comments	Error! Bookmark not defined.
7.9. Hazard Area Extent and Location.....	Error! Bookmark not defined.
Chapter 8. City of Weed Annex	8-13
8.1. Hazard Mitigation Plan Point of Contact.....	8-13
8.2. Jurisdiction Profile	8-13
8.3. Jurisdiction-Specific Natural Hazard Event History	8-15
8.4. Hazard Risk Ranking	8-15
8.5. Capability Assessment	8-15
8.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives	8-15
8.7. Hazard Area Extent and Location.....	8-16
Chapter 9. City of Yreka Annex	9-1
9.1. Hazard Mitigation Plan Point of Contact.....	9-1
9.2. Jurisdiction Profile	9-1
9.3. Jurisdiction-Specific Natural Hazard Event History	9-2
9.4. Hazard Risk Ranking	9-3
9.5. Capability Assessment	9-3
9.6. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives	9-3
9.7. Future Needs to Better Understand Risk/Vulnerability	9-4
9.8. Additional Comments	9-4
9.9. Hazard Area Extent and Location.....	9-4
PART 3— SPECIAL PURPOSE DISTRICT ANNEXES	1
Chapter 10. Lake Shastina Community Services District Annex.....	10-1
10.1. Hazard Mitigation Plan Point of Contact.....	Error! Bookmark not defined.
10.2. Jurisdiction Profile.....	10-1

10.3. Jurisdiction-Specific Natural Hazard Event History 10-3

10.4. Hazard Risk Ranking 10-3

10.5. Applicable Regulations and Plans..... 10-4

10.6. Classification in Hazard Mitigation Programs..... 10-4

10.7. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives 10-4

Chapter 11. McCloud Community Services District Annex.....11-1

11.1. Hazard Mitigation Plan Point of Contact..... 11-1

11.2. Jurisdiction Profile 11-1

11.3. Jurisdiction-Specific Natural Hazard Event History 11-2

11.4. Hazard Risk Ranking 11-2

11.5. Applicable Regulations and Plans..... 11-2

11.6. Classification in Hazard Mitigation Programs..... 11-2

11.7. Hazard Mitigation Action Plan and Evaluation of Recommended Initiatives 11-3

11.8. Future Needs to Better Understand Risk/Vulnerability 11-3

Appendices

- A. Planning Partner Expectations
- B. Procedures for Linking to the Hazard Mitigation Plan
- C. Jurisdictional Annex Instructions and Template for Municipalities
- D. Jurisdictional Annex Instructions and Template for Special-Purpose Districts

**PART I—
INTRODUCTION**

CHAPTER 1.

PLANNING PARTNER PARTICIPATION

1.1. BACKGROUND

The Federal Emergency Management Agency (FEMA) encourages multi-jurisdictional planning for hazard mitigation. Such planning efforts require all participating jurisdictions to fully participate in the process and formally adopt the resulting planning document. Chapter 44 of the Code of Federal Regulations (44CFR) states:

“Multi-jurisdictional plans (e.g. watershed plans) may be accepted, as appropriate, as long as each jurisdiction has participated in the process and has officially adopted the plan.”
(Section 201.6.a(4))

In the preparation of the Siskiyou County Hazard Mitigation Plan, a planning partnership was formed to leverage resources and to meet requirements of the federal Disaster Mitigation Act of 2000 (DMA) for as many eligible local governments in Siskiyou County as possible. The DMA defines a local government as follows:

“Any county, municipality, city, town, township, public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under State law), regional or interstate government entity, or agency or instrumentality of a local government; any Indian tribe or authorized tribal organization, or Alaska Native village or organization; and any rural community, unincorporated town or village, or other public entity.”

There are two types of planning partners in this process, with distinct needs and capabilities:

- Incorporated municipalities (cities and the County)
- Special purpose districts.

1.2. THE PLANNING PARTNERSHIP

Initial Solicitation and Letters of Intent

The planning team solicited the participation of the County and all County-recognized special purpose districts at the outset of this project. A meeting was held on July 28, 2010 at the Siskiyou County Department of Public Health and Community Development in Yreka to identify potential stakeholders for this process. The purpose of the meeting was to introduce the planning process to jurisdictions in the County that could have a stake in the outcome of the planning effort, to solicit planning partners, and to inform potential partners of the benefits of participation. All eligible local governments within the planning area were invited to attend. Various agency and citizen stakeholders were also invited to this meeting. The goals of the meeting were as follows:

- Provide an overview of the Disaster Mitigation Act.
- Provide an update on the planning grant.
- Outline the Siskiyou County plan development work plan.
- Describe the benefits of multi-jurisdictional planning.

- Solicit planning partners.
- Confirm a Steering Committee.

All interested local governments were provided with a list of planning partner expectations developed by the planning team and were informed of the obligations required for participation. Local governments wishing to join the planning effort were asked to provide the planning team with a “notice of intent to participate” that agreed to the planning partner expectations (see Appendix A) and designated a point of contact for their jurisdiction. In all, formal commitment was received from 15 planning partners by the planning team, and the Siskiyou County Planning Partnership was formed.

Maps for each participating city are provided in the individual annex for that city. These maps will be updated periodically as changes to the partnership occur, either through linkage or by a partner dropping out due to a failure to participate.

Planning Partner Expectations

The planning team developed the following list of planning partner expectations, which were confirmed at the kickoff meeting held on July 28, 2010.

- Each partner will provide a “Letter of Intent to Participate.”
- Each partner will support and participate in the selection and function of the Steering Committee overseeing the development of the plan. Support includes allowing this body to make decisions regarding plan development and scope on behalf of the partnership.
- Each partner will provide support for the public involvement strategy developed by the Steering Committee in the form of mailing lists, possible meeting space, and media outreach such as newsletters, newspapers or direct-mailed brochures.
- Each partner will participate in plan development activities such as:
 - Steering Committee meetings
 - Public meetings or open houses
 - Workshops and planning partner training sessions
 - Public review and comment periods prior to adoption.

Attendance will be tracked at such activities, and attendance records will be used to track and document participation for each planning partner. No minimum level of participation will be established, but each planning partner should attempt to attend all such activities.

- Each partner will be expected to perform a “consistency review” of all technical studies, plans, and ordinances specific to hazards identified within the planning area to determine the existence of plans, studies or ordinances not consistent with the equivalent documents reviewed in preparation of the County plan. For example: if a planning partner has a floodplain management plan that makes recommendations that are not consistent with any of the County’s basin plans, that plan will need to be reviewed for probable incorporation into the plan for the partner’s area.
- Each partner will be expected to review the risk assessment and identify hazards and vulnerabilities specific to its jurisdiction. Contract resources will provide jurisdiction-specific mapping and technical consultation to aid in this task, but the determination of risk and vulnerability will be up to each partner.

- Each partner will be expected to review the mitigation recommendations chosen for the overall county and determine if they will meet the needs of its jurisdiction. Projects within each jurisdiction consistent with the overall plan recommendations will need to be identified, prioritized and reviewed to determine their benefits and costs.
- Each partner will be required to create its own action plan that identifies each project, who will oversee the task, how it will be financed and when it is estimated to occur.
- Each partner will be required to sponsor at least one public meeting to present the draft plan at least two weeks prior to adoption.
- Each partner will be required to formally adopt the plan.

It should be noted that by adopting this plan, each planning partner also agrees to the plan implementation and maintenance protocol established in Volume 1. Failure to meet these criteria may result in a partner being dropped from the partnership by the Steering Committee, and thus losing eligibility under the scope of this plan.

Linkage Procedures

Eligible local jurisdictions that did not participate in development of this hazard mitigation plan may comply with DMA requirements by linking to this plan following the procedures outlined in Appendix B. Linkage is also an option for any planning partner that did not meet its planning partner expectations during the initial plan development process.

1.3. ANNEX-PREPARATION PROCESS

Templates

Templates were created to help the planning partners prepare their jurisdiction-specific annexes. Since special purpose districts operate differently from incorporated municipalities, separate templates were created for the two types of jurisdictions. The templates were created so that all criteria of Section 201.6 of 44CFR would be met, based on the partners' capabilities and mode of operation. Each partner was asked to participate in a technical assistance workshop during which key elements of the template were completed by a designated point of contact for each partner and a member of the planning team. The templates were set up to lead each partner through a series of steps that would generate the DMA-required elements that are specific for each partner. The templates and their instructions can be found in Appendices C and D to this volume of the Hazard Mitigation Plan.

Workshop

A workshop was held for planning partners to learn about the templates and the overall planning process. Topics included the following:

- DMA
- Siskiyou County plan background
- The templates
- Risk ranking
- Developing your action plan
- Cost/benefit review.

The workshop was segregated by special districts and municipalities, in order to better address each type of partner's needs. The sessions provided technical assistance and an overview of the template completion process. Attendance at this workshop was mandatory under the planning partner expectations established by the Steering Committee. This workshop was attended by 11 planning partners.

In the risk-ranking exercise, each planning partner was asked to rank each risk specifically for its jurisdiction, based on the impact of the hazard on the area within its jurisdictional boundary. The concept stressed by this exercise is that each planning partner will have different concerns regarding the hazards addressed by this plan. Cities were asked to base this ranking on probability of occurrence and the potential impact on people, property and the economy. Special purpose districts were asked to base this ranking on probability of occurrence and the potential impact on their constituency, their vital facilities and the facilities' functionality after an event. The methodology followed that used for the countywide risk ranking presented in Volume 1. A principal objective of this exercise was to familiarize the partnership with how to use the risk assessment as a tool to support other planning and hazard mitigation processes. A "tool kit" was provided to each participant that included the following:

- The risk assessment results developed for this plan
- Hazard maps for all hazards of concern
- Special district boundary maps that illustrated the sphere of influence for each special purpose district partner
- The guiding principal, goals and objectives of the plan
- Hazard mitigation catalogs
- Federal funding and technical assistance catalogs
- Historical loss data (SHELDUS, FEMA, Cal OES)
- The California State Hazard Mitigation Plan
- Results from the hazard mitigation survey
- A fact sheet on FEMA Hazard Mitigation Assistance (HMA) grants.

Prioritization

44CFR requires actions identified in the action plan to be prioritized (Section 201.c.3.iii). The planning team and steering committee developed a methodology for prioritizing the action plans that meets the needs of the partnership and the requirements of 44CFR. The actions were prioritized according to the following criteria:

- **High Priority**—Project meets multiple plan objectives, benefits exceed cost, funding is secured under existing programs, or is grant eligible, and project can be completed in 1 to 5 years (i.e., short term project) once funded.
- **Medium Priority**—Project meets at least 1 plan objective, benefits exceed costs, requires special funding authorization under existing programs, grant eligibility is questionable, and project can be completed in 1 to 5 years once funded.
- **Low Priority**—Project will mitigate the risk of a hazard, benefits exceed costs, funding has not been secured, project is not grant eligible, and time line for completion is long term (5 to 10 years).

These priority definitions are dynamic and can change from one category to another based on changes to a parameter such as availability of funding. For example, a project might be assigned a medium priority because of the uncertainty of a funding source, but be changed to high once a funding source has been identified. The prioritization schedule for this plan will be reviewed and updated as needed annually through the plan maintenance strategy.

Benefit/Cost Review

44CFR requires the prioritization of the action plan to emphasize a benefit/cost analysis of the proposed actions. Because some actions may not be implemented for up to 10 years, benefit/cost analysis was qualitative and not of the detail required by FEMA for project grant eligibility under the Hazard Mitigation Grant Program (HMGP) and Pre-Disaster Mitigation (PDM) grant program. A review of the apparent benefits versus the apparent cost of each project was performed. Parameters were established for assigning subjective ratings (high, medium, and low) to costs and benefits as follows:

- Cost ratings:

High—Existing funding levels are not adequate to cover the costs of the proposed action; implementation would require an increase in revenue through an alternative source (for example, bonds, grants, and fee increases).

Medium—The action could be implemented with existing funding but would require a re-apportionment of the budget or a budget amendment, or the cost of the action would have to be spread over multiple years.

Low—The action could be funded under the existing budget. The action is part of or can be part of an existing, ongoing program.

- Benefit ratings:

High—The action will have an immediate impact on the reduction of risk exposure to life and property.

Medium—The action will have a long-term impact on the reduction of risk exposure to life and property or will provide an immediate reduction in the risk exposure to property.

Low—Long-term benefits of the action are difficult to quantify in the short term.

Using this approach, projects with positive benefit versus cost ratios (such as high over high, high over medium, medium over low, etc.) are considered cost-beneficial and are prioritized accordingly.

It should be noted that for many of the strategies identified in this action plan, funding might be sought under FEMA's HMGP or PDM programs. Both of these programs require detailed benefit/cost analysis as part of the application process. These analyses will be performed on projects at the time of application preparation. The FEMA benefit-cost model will be used to perform this review. For projects not seeking financial assistance from grant programs that require this sort of analysis, the planning partners reserve the right to define "benefits" according to parameters that meet their needs and the goals and objectives of this plan.

Analysis of Mitigation Initiatives

Each planning partner reviewed its recommended initiatives to classify each initiative based on the hazard it addresses and the type of mitigation it involves. Mitigation types used for this categorization are as follows:

- **Prevention**—Government, administrative or regulatory actions that influence the way land and buildings are developed to reduce hazard losses. Includes planning and zoning, floodplain laws, capital improvement programs, open space preservation, and stormwater management regulations.
- **Property Protection**—Modification of buildings or structures to protect them from a hazard or removal of structures from a hazard area. Includes acquisition, elevation, relocation, structural retrofit, storm shutters, and shatter-resistant glass.
- **Public Education and Awareness**—Actions to inform citizens and elected officials about hazards and ways to mitigate them. Includes outreach projects, real estate disclosure, hazard information centers, and school-age and adult education.
- **Natural Resource Protection**—Actions that minimize hazard loss and preserve or restore the functions of natural systems. Includes sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- **Emergency Services**—Actions that protect people and property during and immediately after a hazard event. Includes warning systems, emergency response services, and the protection of essential facilities.
- **Structural Projects**—Actions that involve the construction of structures to reduce the impact of a hazard. Includes dams, setback levees, floodwalls, retaining walls, and safe rooms.

1.4. FINAL COVERAGE UNDER THE PLAN

Of the 14 committed planning partners, only 10 fully met the participation requirements specified by the Steering Committee. The principal requirement not met by the other partners was the completion of the jurisdictional annex template following the workshops. Eleven partners attended the workshop, but only 10 subsequently submitted completed templates. Therefore, only those 10 jurisdictions are included in this volume and will seek DMA compliance under this plan. The remaining jurisdictions will need to follow the linkage procedures described in Appendix B of this volume. Table 1-1 lists the jurisdictions that submitted letters of intent and their ultimate status in this plan.

**TABLE 1-1.
PLANNING PARTNER STATUS**

Jurisdiction	Letter of Intent Date	Attended Workshop ?	Completed Template?	Will Be Covered by This Plan?
City of Dorris	8/16/2010	Yes	Yes	Yes
City of Dunsmuir	10/20/2010	No	No	No
City of Etna	10/15/2010	Yes	Yes	Yes
Town of Fort Jones	9/8/2010	Yes	Yes	Yes
City of Montague	9/13/2010	Yes	No	No
City of Mt. Shasta	8/2/2010	Yes	Yes	Yes
City of Tulelake	8/16/2010	Yes	Yes	Yes
City of Weed	7/29/2010	Yes	Yes	Yes
City of Yreka	9/22/2010	Yes	Yes	Yes
Siskiyou County	N/A ^a	Yes	Yes	Yes
Happy Camp Community Services District	9/15/2010	No	No	No
Lake Shastina Community Services District	8/3/2010	Yes	Yes	Yes
McCloud Community Services District	9/10/2010	Yes	Yes	Yes
Happy Camp Sanitary District	6/26/2011	No	No	No

a. A letter of intent was not required for Siskiyou County because the County had committed to the process by securing the grant that funded the planning effort.

CHAPTER 10. LAKE SHASTINA COMMUNITY SERVICES DISTRICT ANNEX

10.1 HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact

Robert Moser
~~Michael Wilson~~, General Manager
16320 Everhart Dr.
Weed, CA. 96094
Telephone: 530 938-3281
E-mail Address: generalmanager@lakeshastina.com

Alternate Point of Contact

~~Robert Moser~~, PW Supervisor *Administration Office*
16320 Everhart Dr.
Weed, CA. 96094
Telephone: 530 938-3281
E-mail Address: ~~robert~~@lakeshastina.com
info

10.2 JURISDICTION PROFILE

Lake Shastina Community Services District is a special purpose district created to provide sewer, water, police and fire services to the area around Lake Shastina in Siskiyou County. A five-member elected board of directors governs the District. The Board assumes responsibility for the adoption of this plan; the general manager will oversee its implementation. As of June 2017, the District serves 1,276 water connections and 1,085 sewer connections, with a staff of 10. The Fire Department is a volunteer department of 19 members and a full-time paid chief. The Police Department has 4 sworn officers and a full-time chief. The jurisdiction's boundary is shown on Figure 10-1. The following is a summary of key information about the jurisdiction:

Population Served—2,852 as of 12/31/2016

Land Area Served—2,200 acres

Value of Area Served—The estimated value of the area served by the jurisdiction is \$337,000,000

Land Area Owned—10.5 acres

List of Critical Infrastructure/Equipment Owned by the Jurisdiction:

- 58 miles of water pipeline, 3 water wells, and 4 water storage tanks, 2 booster pump stations.
- 1 Public works yard, equipment, and 10 vehicles
- 79 miles of sewer pipeline, 20 sewer pump stations, 1 wastewater treatment plant
- Building contents and equipment
- 4 fire trucks and contents, 1 rescue rig and contents, 1 fire chief vehicle, 1 pick-up, 24 bunker sets
- 4 Police Vehicles and contents, 1 portable radar trailer, 1 animal control shelter

Total Value of Critical Infrastructure/Equipment—The total value of critical infrastructure and equipment owned by the jurisdiction is \$5,429,345

List of Critical Facilities Owned by the Jurisdiction:

- Administration Building \$570,000
- o Police and Fire Facility \$495,000
- o Medical Clinic \$500,000
- o Public Works Shop Building \$100,000

Total Value of Critical Facilities—The total value of critical facilities owned by the jurisdiction is \$1,665,000

Current and Anticipated Service Trends—Current trends of the District show an aging population with static growth of new homes. The Lake Shastina Area is currently 1/3 built out, meaning that 2/3 of the lots are vacant. Should current economic trends change, then so should the anticipated service area.

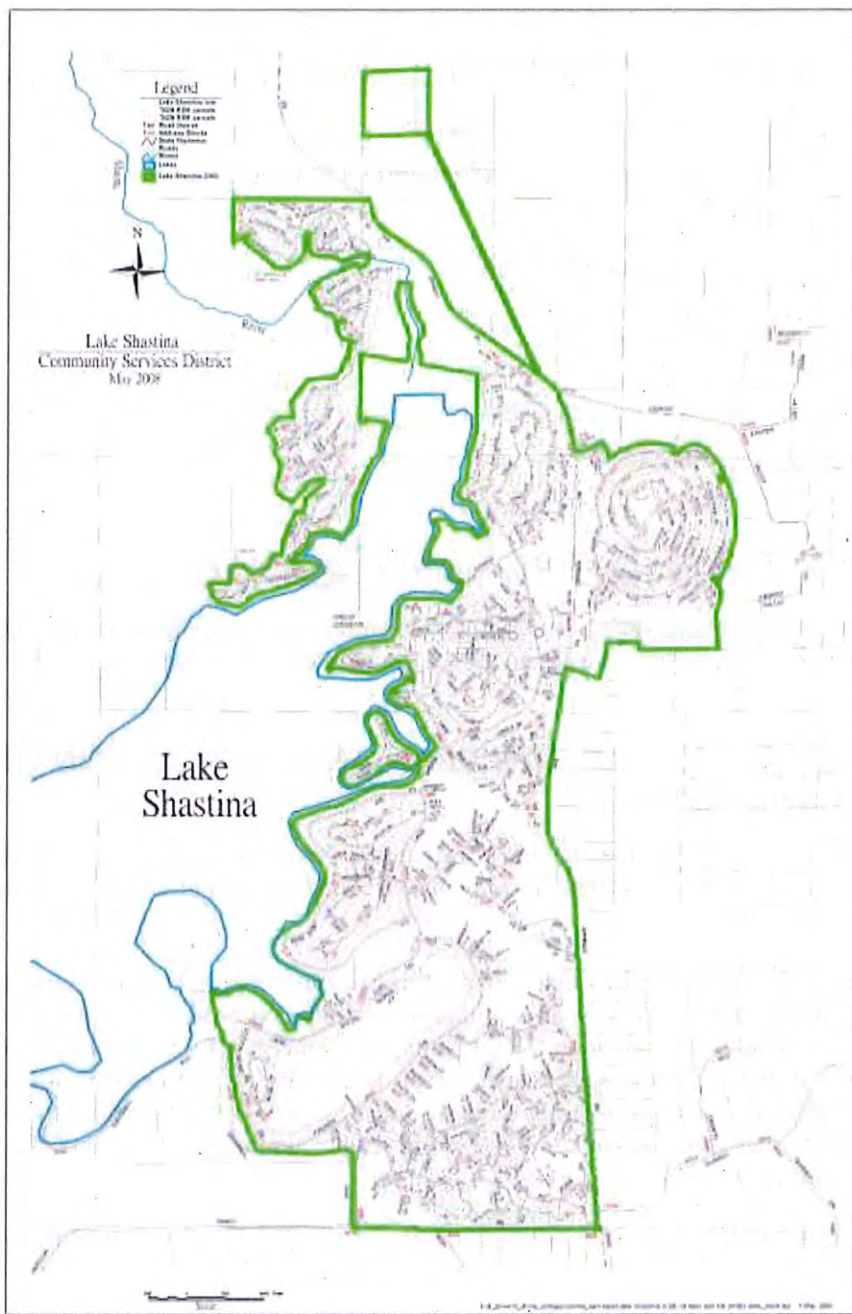


Figure 10-1. Lake Shastina Community Services District Boundary

10.3 JURISDICTION-SPECIFIC NATURAL HAZARD EVENT HISTORY

TABLE 10-1 lists all past occurrences of natural hazards within the jurisdiction.

10.4 HAZARD RISK RANKING

TABLE 10-2 presents the ranking of the hazards of concern.

10.5 APPLICABLE REGULATIONS AND PLANS

The following existing codes, ordinances, policies or plans are applicable to this hazard mitigation plan:

- Greater Lake Shastina Emergency Preparedness Handbook
- Greater Lake Shastina Fire Safe Council Community Wildfire Protection Plan
- County Land Use Ordinance
- Lake Shastina Wildland Fire Evacuation Plan 2003
- Lake Shastina CSD Water Ordinance
- Lake Shastina CSD Sewer Ordinance
- County Building Code, Seismic and Related Codes
- National Environmental Protection Act
- Federal Endangered Species Act.

10.6 CLASSIFICATION IN HAZARD MITIGATION PROGRAMS

The jurisdiction's classifications under various hazard mitigation programs are presented in **TABLE 10-**. Due to the insufficient staff and funding we were not able to integrate information from the 2012 plan in the new plan.

10.7 HAZARD MITIGATION ACTION PLAN AND EVALUATION OF RECOMMENDED INITIATIVES

TABLE 10- lists the initiatives that make up the jurisdiction's hazard mitigation plan. **TABLE 10-** identifies the priority for each initiative. **TABLE 10-** summarizes the mitigation initiatives by hazard of concern and the six mitigation types.

Part of the revision process is surveying the public about topics that are important to them and how they see the CSD will be changing in the next 25 years. Similar to the mapping exercise at a workshop, some of the questions are open ended asking about areas and features of concern. Over half of the participants indicated that safety was in the top 3 topic areas of interest. Even more of the participants mentioned flooding, wildfires, or natural disasters as high concerns for the CSD. Other major themes that came out of the survey is the need to preserve the pristine environment surrounding the CSD and the sense of community that is felt in the area.

The information gathered from the survey is integrated into the mitigation strategy of the 2018 update of the LHMP

The CSD General Plan which includes a Safety Element that will continue to collect input from the public. This information will be integrated into the Safety Element which is connected to the LHMP by state statute.

In addition to the General Plan process, the CSD will continually educate and engage the public in natural and man-made disaster planning with annual review of safety by the Planning Commission in a public meeting, publishing disaster related materials for the public, and engaging the public through public forums to address concerns.

Type of Event	Date	Preliminary Damage Assessment
Severe winter storms, flooding, and mudslides DR-4301	2/14/2017	Estimates unavailable
California Boles Fire (FM-5079)	9/15/2014	516 acres, 157 residences and 8 nonresidential buildings
Severe winter Storm DR-1884	3/8/2010	Estimates unavailable
Fire - Hotlum	2006	3,017 acres burned, damage estimates unavailable
Severe winter Storm DR-1628	2/3/2006	Estimates unavailable
Fire - Hoy	2006	1283 acres burned, damage estimates unavailable
Fire - Shastina	1998	Estimates unavailable

Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Wildfire	51
2	Severe Weather	42
3	Earthquake	26
4	Drought	20
5	Flood	18
6	Volcano	16
7	Landslide	12
8	Dam Failure	10

TABLE 10-3. LEGAL AND REGULATORY CAPABILITY					
ALL OF THESE CAPABILITIES MAY BE USED FOR MITIGATION ACTIVITIES IN THE FUTURE					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Zonings	Y	N	N	Y	NA
Subdivisions	Y	N	N	N	NA
Stormwater Management	N	N	N	?	NA
Growth Management	N	N	N	N	NA
Planning Documents					
Floodplain or Basin Plan	N	N	N	N	NA
Stormwater Plan	N	N	N	?	Presently being addressed
Capital Improvement Plan	N	N	N	N	NA
Emergency Response Plan	Y	N	N	Y	Fire and Police updates

Table 10-4. Administrative and Technical Capability		
All of these capabilities may be used for mitigation activities in the future		
Staff/Personnel Resources	Available for mitigation activities	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Y	Contract service with engineer and PMC (private planning company)
Staff with training in benefit/cost analysis	Y	General Manager
Emergency manager	Y	Police Chief

TABLE 10-5. FISCAL CAPABILITY	
ALL OF THESE CAPABILITIES MAY BE USED FOR MITIGATION ACTIVITIES IN THE FUTURE	
Financial Resources	Accessible or Eligible to Use? To use for mitigation actions.
Capital Improvements Project Funding	Y
Authority to Levy Taxes for Specific Purposes	Y
User Fees for Water Service	Y
State Sponsored Grant Programs	Y

TABLE 10-6. COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Public Protection	No	—	—
Storm Ready	No	—	—
Firewise	No	—	—

TABLE 10-7. HAZARD MITIGATION ACTION PLAN MATRIX							
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Status Update
Initiative LS1—District Police and Fire Seismic Improvements							
Existing	All Hazards	1,2,4,6,8,9	CSD	\$300,000 High	District Funds, FEMA Hazard Mitigation Grants	Short-term	Ongoing
Initiative LS2—District Water Well Electrical Generator Additions							
Existing	All Hazards	1,2,4	CSD	\$350,000 High	District fund, FEMA Hazard Mitigation Grants	Short-term	Ongoing
Initiative LS3—District Construction of Emergency Operations Center in conjunction with Police and Fire							
New	All Hazards	1,2,4,5,6,8,9	CSD	\$650,000 High	District fund, FEMA Hazard Mitigation Grants	Long Term	Ongoing
Initiative LS4—District Fire Engine Upgrade							
New	All Hazards	1,4,8,9	CSD	\$550,000 High	District Funds, FEMA Hazard Mitigation Grants	Short-Term	Ongoing
Initiative LS5—District Fire Fuels abatement program							
Existing	Wildfire	1,2,3,4,5,7,8	CSD	\$20,000/year High	Homeowners funds, FEMA Hazard Mitigation Grants	Short Term	Some areas completed Ongoing
Initiative LS6—Protect Lake Shastina as a fire suppression resource							
New	Wildfire, Volcano, Dam Failure	2,5,7,8	CSD	\$5,000/year Medium	District Funds, Homeowner funds	Short Term	Ongoing

**TABLE 10-7.
HAZARD MITIGATION ACTION PLAN MATRIX**

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline	Status Update
Initiative LS7 —Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe loss properties as priority							
New and Existing	All Hazards	1,2,3,4,5,6,7, 8,9	City	High	City, FEMA Mitigation Grants	Long Term	Ongoing
Initiative LS8 —Support County-wide initiatives identified in Volume 1 of this Plan							
New and Existing	All Hazards	1,2,3,4,5,6,7, 8,9	City	Low	City	Short Term	Ongoing
Initiative LS9 —Continue to support the implementation, monitoring, maintenance and updating of this Plan as identified in Volume 1							
New and Existing	All Hazards	1,2,3,4,5,6,7, 8,9	City	Low	City, FEMA Mitigation Grants	Short Term	Ongoing

**TABLE 10-8.
MITIGATION STRATEGY PRIORITY SCHEDULE**

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority ^a
LS1	6	High	High	Yes	Yes	No	High
LS2	3	High	High	Yes	Yes	No	High
LS3	7	High	High	Yes	Yes	No	High
LS4	4	High	High	Yes	Yes	No	High
LS5	7	High	High	Yes	Yes	Yes	Med
LS6	4	High	Med	Yes	No	Yes	Med
LS7	9	High	High	Yes	Yes	No	High
LS8	9	Med	Low	Yes	No	Yes	High
LS9	9	Med	Low	Yes	Yes	Yes	High

a. See Section 1.3 for definitions of high, medium and low priorities.

**TABLE 10-9.
ANALYSIS OF MITIGATION INITIATIVES**

Hazard Type	Initiative Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Dam Failure	3, 8, 9	3, 7	3, 6, 8, 9	6	14, 2	1, 3
Drought	8, 9	3, 7	3, 8, 9	6	3, 2	3

**TABLE 10-9.
ANALYSIS OF MITIGATION INITIATIVES**

Hazard Type	Initiative Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Earthquake	3, 8, 9	1, 3, 7	3, 8, 9	2	1, 4, 2	1, 3
Flood	8, 9	7	3, 8, 9		1, 4	1, 3
Landslide	8, 9	1, 3, 7	3, 8, 9		1, 4, 2	1, 3
Severe Weather	3, 8, 9	1, 3, 7	3, 8, 9	2	1, 4, 2	1, 3
Volcano	3, 8, 9	1, 3, 7	3, 8, 9	6	1, 4, 2	1
Wildfire	3, 8, 9	3, 7	6, 5, 8, 9	5, 6	14, 2	1

a. See Section 1.3 for description of mitigation types

**TABLE 10-10.
COMMUNITY OUTREACH**

WILL BE PERFORMING THESE OUTREACH EVENTS AND WILL INCLUDE MITIGATION EDUCATION TO THE PUBLIC.

Outreach
Community Meetings Go Bag planning Schools
Fire Safe Council Meetings
PSA about Emergency Notification System and Testing
Use of Facebook and Twitter
Joint Community Hmong Preparedness Meetings for evacuations



LAKE SHASTINA COMMUNITY SERVICES DISTRICT

Regular Meeting
 Wednesday, August 21, 2019
 Closed Session: 11:30 a.m. / Open Session: 1:00 p.m.
 Administration Building
 16320 Everhart Drive • Weed, California 96094 • (530) 938-3281

MINUTES

CALL TO ORDER AND ROLL CALL: 11:32 a.m.

LSCSD Board Roll Call: Beck Cupp MacIntosh Mitchell Thompson

*Dir. Cupp arrived at 11:34 a.m. Also present: GM Moser, AA Charvez and District Counsel Margaret Long. There were no people in the audience.

PUBLIC COMMENTS ON CLOSED SESSION: None

ADJOURN TO CLOSED SESSION: With no objections by the Board, Pres Thompson adjourned to Closed Session at 11:33 a.m.

CLOSED SESSION: 11:33 a.m.

Also present: GM Moser and District Counsel Long.

A. Personnel (Gov. Code Section 54957): Public Employee Performance Evaluation: District Counsel

B. Personnel (Gov. Code Section 54957): Public Employee Performance Evaluation: General Manager

With no objections by the Board, Pres. Thompson adjourned Closed Session at 12:40 p.m.

RETURN TO OPEN SESSION: 1:00 p.m.

Also present: GM Moser, SAC Nelle, APC Bullington, FC Pappas, AA Charvez and District Counsel Long. There were approximately 13 people in the audience.

PLEDGE OF ALLEGIANCE: Carried out.

REPORT ON CLOSED SESSION: Pres. Thompson reported that there was nothing to report.

PUBLIC COMMENTS: Comments received.

CONSENT CALENDAR: (All items accepted/approved by the Board unless otherwise noted.)

1. A. Approval of Minutes: Regular Meeting July 17, 2019 and Special Meeting/Workshop August 6, 2019
- B. Ratification of Disbursements: July 1 through July 31, 2019
- C. Budget Comparison: FY 2019/20
- D. LAIF Quarterly Report
- E. Ratification of transfer of funds in LAIF Savings

Motion by Dir. Cupp second Dir. Mitchell to approve Consent Calendar.

Ayes: Directors Beck, Cupp, MacIntosh, Mitchell and Thompson

Noes: None

Absent: None

MONTHLY REPORTS: NO ACTION ITEMS:

2. Department Written Reports
 - A. Fire Department: FC Pappas reported.
 - B. Police Department: APC Bullington reported.
 - C. Sewer Department: GM Moser reported.
 - D. Water Department: GM Moser reported.
3. Committee Written Reports / Approved Minutes – Nothing to report.

DISCUSSION / REPORTS: ACTION ITEMS:

4. Consideration of adopting a resolution accepting Volunteer Fire Assistance Program Grant Funding of \$6,815.00 with CSD match of \$6,815.00: FC Pappas reported. The Board discussed.

Motion by Dir. Beck second Dir. Mitchell to adopt Resolution 5-19 to accept the 2019 Volunteer Fire Assistance Grant with a 50% match by the CSD (funded amount not to exceed \$6,815.00).

Ayes: Directors Beck, Cupp, MacIntosh, Mitchell and Thompson

Noes: None

Absent: None

5. Consideration of adoption of resolution to approve an amendment to contract between CalPERS and LSCSD: GM Moser reported. The Board discussed.

Motion by Dir. Mitchell second Dir. Cupp to adopt Resolution 7-19 to approve an amendment to contract between CalPERS and LSCSD, as presented.

Ayes: Directors Cupp, MacIntosh, Mitchell and Thompson
Noes: None
Absent: None
Abstain: Director Beck

6. Consideration of adopting a resolution regarding the Siskiyou County Hazard Mitigation Plan: GM Moser reported. The Board discussed.

Motion by Dir. Cupp second Dir. MacIntosh to adopt Resolution 6-19 adopting the Siskiyou County Local Hazard Mitigation Plan.

Ayes: Directors Beck, Cupp, MacIntosh, Mitchell and Thompson
Noes: None
Absent: None

7. Burn Site: review / possible action regarding site preparation cost and operating recommendations: GM Moser reported. The Board discussed. Direction was given to staff to request organizations within the District to contribute to the cost of Site improvements (homeowner associations, golf course).

Motion by Dir. Mitchell second Dir. MacIntosh to approve expenditures needed for the Burn Site, as presented.

Ayes: Directors Beck, Cupp, MacIntosh, Mitchell and Thompson
Noes: None
Absent: None

STAFF COMMENTS: Comments received.

BOARD MEMBER COMMENTS: Comments received.

ADJOURNMENT: With no objections by the Board, Pres. Thompson adjourned the meeting at 2:23 p.m.

The next LSCSD Regular Board Meeting is on Wednesday, September 18, 2019, 1:00 p.m. at the Administration Building.

Approval Date: 9/18/19


Rick Thompson, Resident

ATTEST:


Robert Moser, General Manager/Secretary