Appendix A Planning Process

A.1 Lists of HMPC Invites/Stakeholders

Table A-1 Initial LHMP Invite List

Name	Jurisdiction	Title	Email
Jessica Driskill	Public Health	Program Mgr.	jdriskill@buttecounty.net
David Hawks	Butte County Fire/CAL FIRE	Div. Chief	david.hawks@fire.ca.gov
Pete Calarco	Dept. Development Services	Asst. Director	pcalarco@buttecounty.net
Terry Edwards	Public Works	Sr. Engineer	tedwards@buttecounty.net
Heather Macdonald	BC Economic Development	Mgt. Analyst	hmacdonald@buttecounty.net
Kristen McKillop	Northstar Eng.		kmckillop@northstareng.com
Kamie Loeser	Northstar Eng.		kloeser@northstareng.com
Dan Breedon	Dept. Development Services	Principal Planner	dbreedon@buttecounty.net
Holly Jorgensen	Sac River Watershed Program	Executive Director	holly@sacriver.org
Mark Sorensen	City of Biggs	City Administrator	mark@biggs-ca.gov
Mark Orme	City of Chico	City Manager	mark.orme@chicoca.gov
Jesse Alexander	City of Chico	Chico Fire-Rescue	jesse.alexander@chicoca.gov
Paul Eckert	City of Gridley	City Administrator	eckert@gridley.ca.us
Donna Decker	City of Gridley	Planning Director	des.llc@comcast.net
Chief Bill LaGrone	City of Oroville	Director of Public Safety	blagrone@oropd.org
Lauren Gill	Town of Paradise	Town Manager	lgill@townofparadise.com
Jim Broshears	Town of Paradise		prafirejb@comcast.net
Marc Mattox	Town of Paradise		mmattox@townofparadise.com
Craig Baker	Town of Paradise		cbaker@townofparadise.com
John Messina	Cal Fire/Town of Paradise/FSC	Butte County Fire	john.messina@fire.ca.gov
Shawn Rohrbacker	FRRPD	Gen. Manager	shawn@frrpd.com
Scott Thompson	FRRPD		scottt@frrpd.com
Brian Wilson	FRRPD		brian@frrpd.com
Scott McCutcheon	LOAPUD	Gen. Manager	scottm@loapud.com

Name	Jurisdiction	Title	Email
Matt Colwell	South Feather W&P	Water Div. Mgr	mcolwell@southfeather.com
Jayme Boucher	TWSD	Gen. Manager	jboucher@twsd.info
Chris Heindell	TWSD		cheindell@twsd.info
Kevin Phillips	Paradise Irrigation Dist	CFO	kphillips@paradiseirrigation.com
Jim Passanisi	Paradise Irrigation Dist		jpassanisi@paradiseirrigation.com
Dan Efseaff	Paradise Rec & Park Dist	Dist. Manager	defseaff@paradiseprpd.com
Calli-Jane DeAnda	Butte County Fire Safe Council	Executive Director	firesafe@buttefiresafe.net
Dan Taverner	USDA/NRCS	District Conservationist	daniel.taverner@ca.usda.gov
Evan Levang	Diversability Action Center	Director	evan@actionctr.org
Carolyn Nave	Diversability Action Center		carolyn@actionctr.org
Michelle Wetmore	Far Northern Regional	Em. Preparedness	mwetmore@farnorthernrc.org
George Barber	Cal Water	Gen. Manager	gbarber@calwater.com
Jon Clark	BCAG	Executive Director	jclark@bcag.org
Mark Shelton	BC General Services	Safety Officer	mwshelton@buttecounty.net
Rod Daugherty	Cal OES	ESC	Rod.Daugherty@caloes.ca.gov
Lindsey Standley	Cal OES	ESC	lindsey.stanley@caloes.ca.gov
Tom Fossum	BC Public Works	Floodplain	tfossum@buttecounty.net
Jim Aranguren	Butte County GIS		jaranguren@buttecounty.net
Greg Hooper	Butte County GIS		ghooper@buttecounty.net
Casey Hatcher	Butte County Econ. Develop		chatcher@buttecounty.net
Cooper Cunningham	Oroville Hospital		ccunningham@orohosp.com
Wendy VanCott	Feather River Hospital		VanCotWG@ah.org
Bob Kiuttu	Enloe Medical Center		bob.kiuttu@enloe.org
Matt Washburn	Orchard Hospital		mwashburn@orchardhospital.com
Brenda Rightmyer	Yankee Hill Fire Safe Council		brightmyer@att.net
Phil John	Paradise Ridge Fire Safe Council		pjohn7179@aol.com
Derek Bell	BCSO		jbell@buttecounty.net

Name	Jurisdiction	Title	Email
Shari McCracken	Butte County CAO		smccracken@buttecounty.net
Kory Honea	Butte County Sheriff		khonea@buttecounty.net
Steve Standridge	Chico Fire & Rescue		steve.standridge@chicoca.gov
Sang Kim	BC DCAO		skim@buttecounty.net
Brian Ring	BC ACAO		bring@buttecounty.net
Berry Creek Rancheria	Tribal - EPA		dbrown@berrycreekrancheria.com
Francis Steele	Berry Creek Rancheria		Francis.Steele@berrycreekrancheria.com
Enterprise Rancheria			info@enterpriserancheria.org
Mooretown Rancheria - Gary Archuleta	Tribal Chairman		gwarchuleta@mooretown.org
Michael Garcia	Mechoopda Tribe	Environmental Tech	mgarcia@mechoopda-nsn.gov
Colin Klinesteker	Mechoopda Tribe		cklinesteker@mechoopda-nsn.gov
George Ballard	Mechoopda Tribal Council		gballard@mechoopda-nsn.gov
Mark Stemen	Chico State		mstemen@csuchico.edu
Joe Wilson	PG&E		j8we@pge.com
Louie Mendoza	Ag Commissioner		lmendoza@buttecounty.net
Steve Lambert	Chair, BOS		slambert@buttecounty.net
Doug Teeter	Vice Chair, BOS		dteeter@buttecounty.net
Victoria LaMar-Haas	Cal OES		victoria.LaMar-Haas@caloes.ca.gov
Emma Reed	FEMA		emma.reed@fema.dhs.gov
Jesse Carpentier	FEMA		jesse.carpentier@fema.dhs.gov
Jeanine Foster	Foster Morrison		jeanine.foster@fostermorrison.com
Chris Morrison	Foster Morrison		chris.morrison@fostermorrison.com
Kira Souders	Butte County Admin	Mgt. Analyst Sr.-C	ksouders@buttecounty.net
Shane Vargas	State Fire Marshal - Land Use		shane.vargas@fire.ca.gov
Scott Henry	State Fire Marshal - Land Use		scott.henry@fire.ca.gov
Rudy Baltazar	State Fire Marshal - Land Use		rudy.baltazar@fire.ca.gov
Asia King	FEMA Region IX	Hazard Mitigation Planner	asia.king@fema.dhs.gov
David Brillenz	Plumas National Forest		davidbbrillenz@fs.fed.org

Name	Jurisdiction	Title	Email
Lee Anne Schramel	Plumas National Forest		easchramel@fs.fed.us
Ryan Tompkins	Plumas National Forest		rtompkins@fs.fed.us
Lynn Campbell	Sierra Nevada Conservancy		lynn.campbell@sierranevada.ca.gov
Ursula Parker	BC Air Qlty Management		uparker@bcaqmd.org
John Messina	CalFIRE		john.messina@fire.ca.gov
Jesse Alexander	Chico Fire		jesse.alexander@chicoca.gov
Mary Sakuma	BCOE Superintendant of Schools		msakuma@bcoe.org
Chris Heindell	TWSD		cheindell@twsd.info
Barry	Fish and Wildlife		barry.ceccon@wildlife.ca.gov
Jim DeAngelo	CalOES		jfdeangelo@gmail.com
Ken Leep	PID		Ken.Leep@weareharris.com
Bill Llewellyn	PID		wldlm131@gmail.com
Patty Arena	Enloe Medical Center		patricia.arena@enloe.org
Gina House	Cal DWR		gina@water.ca.gov
Jaymie Perrin	SFWPA		jperrin@southfeather.com
Courtney Farrell	CSU Chico		cafarrell@csuchico.edu
Ken Worman	Cal OES		ken.worman@caloes.ca.gov
Dan Blair	PG&E		dan.blair@pge.com
Gretchen Bender	Orchard Hospital		gbender@orchardhospital.com
Jerry Hight	BCOE, DROC Liaison		jhight@bcoe.org
Joe Deal	City of Oroville PD		jdeal@oropd.org
Xing Liu	FEMA		xing.liu@fema.dhcs.gov
Scott Tucker	Butte County PH E-Coordinator		stucker@buttecounty.net
Adam Sutkus	CalOES		adam.sutkus@caloes.ca.gov
Stephanie Stephens	CalOES		stephanie.stephens@caloes.ca.gov
Greg Eaton	Town of Paradise - Consultant		gregory.w.eaton@ey.com
Rob Hill	Ag Commissioner		rhill@buttecounty.net
Steve Kenny	Butte County Fair	CEO	skenny@buttecountyfair.org
Lt. Steve Collins	BCSO		SCollins@buttecounty.net
Kryssy Mache	DWR	Env. Scientist	krystle.mache@water.ca.gov

Name	Jurisdiction	Title	Email
Jason Mandly	BCAQMD	Air Quality Planner	jmandly@bcaqmd.org
Steve Lucas	LAFCo		slucas@buttecounty.net
Tara Rhoads	Rock Creek Reclamation Dist	General Manager	rockcreekreclamation@aol.com
Cindi Dunsmoor	Butte County	OES	CDunsmoor@buttecounty.net
Lori Mendoza	Butte County	County Ag	lmendoza@buttecounty.net
Sandy Frizell	Butte County Fairground		sandy@buttcountyfair.org
Randy Murphy	FRRPD		randy@frrpd.com
Jim Houtman	Butte County Fire Safe Council		jimh@buttefirsafe.net
Mike Hensley	City of Gridley		mhensley@gridley.ca.us
Stephen Kenny	Butte County Fairground		skenny@buttecountyfair.org
Karen McCready-Hoover	Cal OES		karen.mccreadyhoover@caloes.ca.gov
Kelly Riley	Cal OES		kelly.riley@caloes.ca.gov
Steve Crowder	Town of Paradise		scrowder@townofparadise.com
George Barber	Cal DWR		gbarber@calwater.com
Dan Sanders	LOAPUD		dsanders@loapud.com
John Gaddy	Cal Fire/BCFD		john.gaddie@calfire.ca.gov
Steve Solano	Oroville PD		ssolano@oropd.org
Lauren Sugay	Butte County Planning		lsugay@buttecounty.net

Table A-2 HMPC Participant List

Name	Jurisdiction	Title	Email
Pete Calarco	Dept. Development Services	Asst. Director	pcalarco@buttecounty.net
Heather Macdonald	BC Economic Development	Mgt. Analyst	hmacdonald@buttecounty.net
Kamie Loeser	Northstar Eng.		
Dan Breedon	Dept. Development Services	Principal Planner	dbreedon@buttecounty.net
Mark Sorensen	City of Biggs	City Administrator	mark@biggs-ca.gov
Mark Orme	City of Chico	City Manager	mark.orme@chicoca.gov
Jesse Alexander	City of Chico	Chico Fire-Rescue	jesse.alexander@chicoca.gov
Paul Eckert	City of Gridley	City Administrator	eckert@gridley.ca.us
Donna Decker	City of Gridley	Planning Director	des.llc@comcast.net
Chief Bill LaGrone	City of Oroville	Director of Public Safety	blagrone@oropd.org
Lauren Gill	Town of Paradise	Town Manager	lgill@townofparadise.com
John Messina	Cal Fire/Town of Paradise/FSC	Butte County Fire	john.messina@fire.ca.gov
Shawn Rohrbacker	FRRPD	Gen. Manager	shawn@frrpd.com
Scott Thompson	FRRPD		scottt@frrpd.com
Brian Wilson	FRRPD		brian@frrpd.com
Scott McCutcheon	LOAPUD	Gen. Manager	scottm@loapud.com
Jayme Boucher	TWSD	Gen. Manager	jboucher@twsd.info
Chris Heindell	TWSD		cheindell@twsd.info
Kevin Phillips	Paradise Irrigation Dist	CFO	kphillips@paradiseirrigation.com
Kamie Loeser	Durham Irrigation District		
Kamie Loeser	North Yuba Water Dist.		
Dan Efseaff	Paradise Rec & Park Dist	Dist. Manager	defseaff@paradiseprpd.com
Calli-Jane DeAnda	Butte County Fire Safe Council	Executive Director	firesafe@buttefiresafe.net
Dan Taverner	USDA/NRCS	District Conservationist	daniel.taverner@ca.usda.gov
Michelle Wetmore	Far Northern Regional	Em. Preparedness	mwetmore@farnorthernrc.org
Mark Shelton	BC General Services	Safety Officer	mwshelton@buttecounty.net
Rod Daugherty	Cal OES	ESC	Rod.Daugherty@caloes.ca.gov
Tom Fossum	BC Public Works	Floodplain	tfossum@buttecounty.net

Name	Jurisdiction	Title	Email
Jim Aranguren	Butte County GIS		jaranguren@buttecounty.net
Cooper Cunningham	Oroville Hospital		ccunningham@orohosp.com
Bob Kiuttu	Enloe Medical Center		bob.kiuttu@enloe.org
Derek Bell	BCSO		jbell@buttecounty.net
Shari McCracken	Butte County CAO		smccracken@buttecounty.net
Steve Standridge	Chico Fire & Rescue		steve.standridge@chicoca.gov
Brian Ring	BC ACAO		bring@buttecounty.net
Steve Lambert	Chair, BOS		slambert@buttecounty.net
Doug Teeter	Vice Chair, BOS		dteeter@buttecounty.net
Victoria LaMar-Haas	Cal OES		victoria.LaMar-Haas@caloes.ca.gov
Emma Reed	FEMA		emma.reed@fema.dhs.gov
Jeanine Foster			jeanine.foster@fostermorrison.com
Chris Morrison			chris.morrison@fostermorrison.com
Kira Souders	Butte County Admin	Mgt. Analyst Sr.-C	ksouders@buttecounty.net
Shane Vargas	State Fire Marshal - Land Use		shane.vargas@fire.ca.gov
Asia King	FEMA Region IX	Hazard Mitigation Planner	asia.king@fema.dhs.gov
John Messina	CalFIRE		john.messina@fire.ca.gov
Jesse Alexander	Chico Fire		jesse.alexander@chicoca.gov
Mary Sakuma	BCOE Superintendant of Schools		msakuma@bcoe.org
Chris Heindell	TWSD		cheindell@twsd.info
Jim DeAngelo	CalOES		jfdeangelo@gmail.com
Patty Arena	Enloe Medical Center		patricia.arena@enloe.org
Gina House	Cal DWR		gina@water.ca.gov
Jaymie Perrin	SFWPA		jperrin@southfeather.com
Courtney Farrell	CSU Chico		cafarrell@csuchico.edu
Ken Worman	Cal OES		ken.worman@caloes.ca.gov
Dan Blair	PG&E		dan.blair@pge.com
Jerry Hight	BCOE, DROC Liaison		jhight@bcoe.org
Joe Deal	City of Oroville PD		jdeal@oropd.org
Xing Liu	FEMA		xing.liu@fema.dhcs.gov
Scott Tucker	Butte County PH E-Coordinator		stucker@buttecounty.net
Adam Sutkus	CalOES		adam.sutkus@caloes.ca.gov
Stephanie Stephens	CalOES		stephanie.stephens@caloes.ca.gov

Name	Jurisdiction	Title	Email
Greg Eaton	Town of Paradise - Consultant		gregory.w.eaton@ey.com
Rob Hill	Ag Commissioner		rhill@buttecounty.net
Steve Kenny	Butte County Fair	CEO	skenny@buttecountyfair.org
Jason Mandly	BCAQMD	Air Quality Planner	jmandly@bcaqmd.org
Steve Lucas	LAFCo		slucas@buttecounty.net
Tara Rhoads	Rock Creek Reclamation Dist	General Manager	rockcreekreclamation@aol.com
Cindi Dunsmoor	Butte County	OES	CDunsmoor@buttecounty.net
Lori Mendoza	Butte County	County Ag	lmendoza@buttecounty.net
Sandy Frizell	Butte County Fairground		sandy@buttcountyfair.org
Randy Murphy	FRRPD		randy@frrpd.com
Jim Houtman	Butte County Fire Safe Council		jimh@buttefirsafe.net
Mike Hensley	Gridley		mhensley@gridley.ca.us
Stephen Kenny	Butte County Fairground		skenny@buttecountyfair.org
Karen McCready-Hoover	Cal OES		karen.mccreadyhoover@caloes.ca.gov
Kelly Riley	Cal OES		kelly.riley@caloes.ca.gov
Steve Crowder	Town of Paradise		scrowder@townofparadise.com
George Barber	Cal DWR		gbarber@calwater.com
Dan Sanders	LOAPUD		dsanders@loapud.com
John Gaddy	Cal Fire/BCFD		john.gaddie@calfire.ca.gov
Steve Solano	Oroville PD		ssolano@oropd.org
Lauren Sugay	Butte County Planning		lsugay@buttecounty.net

A.2 Website for Hazard Mitigation Plan

A.3 Kickoff Meeting

A.3.1. Early Kickoff Meeting Invite to Stakeholders

From: Dunsmoor, Cindi <CDunsmoor@buttecounty.net>
Sent: Monday, November 5, 2018 3:31 PM
To: Duval-Critser, Aimee; Hawks, David; Calarco, Pete; Edwards, Terry; MacDonald, Heather; 'kmckillop@northstareng.com'; Breedon, Dan; 'holly@sacriver.org'; 'mark@biggs-ca.gov'; 'mark.orme@chicoca.gov'; 'eckert@gridley.ca.us'; 'blagrone@oropd.org'; 'lgill@townofparadise.com'; 'prafirejb@comcast.net'; 'randy@frrpd.com'; 'dlong@loapud.com'; 'mcolwell@southfeather.com'; Boucher, James; 'kphillips@paradiseirrigation.com'; 'efortner@paradiseirrigation.com'; 'defseaff@paradiseprpd.com'; 'firesafe@buttefiresafe.net'; 'daniel.taverner@ca.usda.gov'; 'evan@actionctr.org'; 'carolyn@actionctr.org'; 'mwetmore@farnorthernrc.org'; 'gbarber@calwater.com'; 'jclark@bcag.org'; 'mshelton@buttecounty.net'; 'Rod.Dougherty@caloes.ca.gov'; Lindsey, Stanley; Fossum, Tom; Aranguren, Jim; Hooper, Greg; Hatcher, Casey; 'ccunningham@orohospital.com'; 'VanCotWG@ah.org'; 'bob.kiuttu@enloe.org'; 'mwashburn@orchardhospital.com'; 'brightmyer@att.net'; 'pjohn7179@aol.com'; Bell, James; McCracken, Shari; Honea, Kory; 'steve.standridge@chicoca.gov'; Kim, Sang; Ring, Brian; 'dbrown@berrycreekrancheria.com'; 'info@enterpriserancheria.org'; 'gwarchuleta@mooretown.org'; 'eiacona@mechoopda-nsn.gov'; 'mit@mechoopda-nsn.gov'; 'mstemen@csuchico.edu'; 'j8we@pge.com'; Mendoza, Louie; Lambert, Steve; Kirk, Maureen; 'jpassanisi@paradiseirrigation.com'; 'victoria.LaMar-Haas@caloes.ca.gov'; 'emma.reed@fema.dhs.gov'; 'asia.king@fema.dhs.gov'; 'jesse.carpentier@fema.dhs.gov'; Jeanine Foster; Chris Morrison
Subject: Butte County Local Hazard Mitigation Plan Kick Off Meeting
When: Thursday, November 29, 2018 1:00 PM-4:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: Board of Supervisors Chambers - 25 County Center Dr., Suite 205, Oroville, CA

Butte County is kicking off efforts to develop a Local Hazard Mitigation Plan (LHMP) Update to their 2014 LHMP. The County is partnering with the five incorporated communities and several special Districts for this Update. The purpose of the LHMP process is to help reduce the impacts of natural hazards to the citizens, property, and critical infrastructure in the County. The Disaster Mitigation Act of 2000 (DMA 2000) requires that local governments have a FEMA-approved LHMP in place in order to be eligible for certain pre- and post-disaster mitigation funding to protect communities from future disaster-related losses. You are receiving this notice because we would like to invite you to take part in this plan update as a member of the Hazard Mitigation Planning Committee (HMPC).

County and agency participation and coordination is a requirement of an approved plan, as is the inclusion of any hazard data, information, and mitigation projects your department or agency may want to see included in this Update. Thus, your input will be critical to the success of this project. Participation includes:

- Attending and participating in the HMPC meetings (5 anticipated over the next 6-8 months)
- Providing available data/information requested of the HMPC
- Reviewing and providing comments on the plan drafts

Butte County, Office of Emergency Management is taking the lead on coordinating this project for the County. A project kickoff meeting will be held at the following location and time:

November 29, 2018
Butte County Board of Supervisors' Chambers
25 County Center Dr., Suite 205
Oroville, CA 95965

The kickoff meeting will explain the process and how you can be involved. A public stakeholder meeting will also be held the evening of the same day of the kickoff meeting. Details on the public meetings will be forthcoming.

A public stakeholder meeting will also be held at 5:30 on the same day.

Please RSVP by accepting this Outlook invitation and plan on attending or delegating attendance to this important meeting. You can forward this invitation to others in your agency that will attend.

Thank you and let me know if you have any questions,

Cindi

Cindi Dunsmoor
Emergency Services Officer
Office of Emergency Management
25 County Center Drive, Suite 213, Oroville, CA 95965
T: 530.552.3333 | F: 530.538.3831
Twitter | Facebook | You Tube | Pinterest

A.3.2. Kickoff Meeting Invite to Stakeholders

Sent: Wednesday, January 16, 2019 9:57 AM
To: Souders, Kira; Aranguren, Jim; Asia King; Bob Kiuttu; Breedon, Dan; Brenda Rightmyer; Calarco, Pete; Carolyn Nave; Chris Morrison; Dunsmoor, Cindi; Cooper Cunningham; D. Brown; Daniel Taverner; Hawks, David; Bell, James; Doyle, Hunter@DWR; Duval-Critser, Aimee; Edwards, Terry; Emma Reed; Evan Levang; Fossum, Tom; Francis Steele; Gary Archuleta; George Ballard; George Barber; Hatcher, Casey; Honea, Kory; Hooper, Greg; 'House, Gina@DWR'; Jeanine Foster; Jesse Carpentier; Jim Passanisi; Joe Wilson; Jon Clark; Kim, Sang; Kirk, Maureen; Lambert, Steve; Brian Wilson; Calli-Jane DeAnda; Dan Efseaff; Jaymie Perrin; Kristen McKillop; Matt Colwell; Randy Murphy; Scott McCutcheon; Scott Thompson; Bill LaGrone; Craig Baker; Ed Fortner; Boucher, James; Jim Broshears; Kevin Phillips; Lauren Gill; Mark Orme; Mark Sorensen; Paul Eckert; Lindsey Standley; MacDonald, Heather; Mark Stemen; Matt Washburn; McCracken, Shari; Mendoza, Louie; Michelle Wetmore; Miller, Jack@DWR; Phil John; Ring, Brian; Rod Daugherty; Rudy Baltazar; Shelton, Mark; Steve Standridge; Victoria LaMar-Haas; Wendy VanCott; Womack, Clint@DWR
Subject: Butte County Local Hazard Mitigation Plan Kick Off Meeting
When: Tuesday, February 5, 2019 1:00 PM-4:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: Board of Supervisors Chambers - 25 County Center Dr., Suite 205, Oroville, CA

Good morning all,

Butte County is kicking off efforts to develop a Local Hazard Mitigation Plan (LHMP) Update to their 2014 LHMP. The County is partnering with the five incorporated communities and several special Districts for this Update. The purpose of the LHMP process is to help reduce the impacts of natural hazards to the citizens, property, and critical infrastructure in the County. The Disaster Mitigation Act of 2000 (DMA 2000) requires that local governments have a FEMA-approved LHMP in place in order to be eligible for certain pre- and post-disaster mitigation funding to protect communities from future disaster-related losses. You are receiving this notice because we would like to invite you to take part in this plan update as a member of the Hazard Mitigation Planning Committee (HMPC).

County and agency participation and coordination is a requirement of an approved plan, as is the inclusion of any hazard data, information, and mitigation projects your department or agency may want to see included in this Update. Thus, your input will be critical to the success of this project. Participation includes:

- Attending and participating in the HMPC meetings (5 anticipated over the next 6-8 months)
- Providing available data/information requested of the HMPC
- Reviewing and providing comments on the plan drafts

Butte County Office of Emergency Management is taking the lead on coordinating this project for the County. A project kickoff meeting will be held at the following location and time:

February 5, 2019 at 1:00pm
Butte County Board of Supervisors' Chambers
25 County Center Dr., Suite 205
Oroville, CA 95965

The kickoff meeting will explain the process and how you can be involved.

A public stakeholder meeting will also be held at 5:30 on the same day.

Please RSVP by accepting this Outlook invitation and plan on attending or delegating attendance to this important meeting. You can forward this invitation to others in your agency that will attend.

A.3.3. Kickoff Meeting Agenda

Butte County
Local Hazard Mitigation Plan (LHMP) Update
HMPC (Kickoff) Meeting #1
February 15, 2019

1. Introductions
2. Hazard Mitigation & the Disaster Mitigation Act Planning Requirements
3. The Role of the Hazard Mitigation Planning Committee (HMPC)
4. Planning for Public Input
5. Coordinating with other Agencies
6. Hazard Identification
7. Schedule
8. Data Needs
9. Questions and Answers

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Kickoff Meeting #1
February 5, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Chris Dunsmore EO	cdunsmore@buttecounty.net	530-552-3333	Butte Co OEM
Jeanine Foster PM	jeanine.foster@fostermorrison.com	303 717-7171	Foster Morrison
Kira Souders Sr Mgmt analyst	~~kira.souders~~ ksouders@buttecounty.net	530-552-3321	Butte Co. Admin
Jim DeAngelo	JFDEANGELO@GMAIL.COM	505-45-2649	Cal OES
KEN LEEP	KEN.LEEP@WEARE HARRIS.COM	530-887-1045	PIP
Bill Wadell	WLDLM1316@GMAIL.COM	(916) 747 5939	"
Michelle Wetmore	mwetmore@farnorthernrc.org	895-8633	FNRC
Dan Taverner	daniel.taverner@CA.usda.gov	530 534-0112	NRCS
Mark Orme	mark.orme@chicoca.gov	530 896-7200	City of Chico
Bob Kiuttu	bob.kiuttu@enloe.org	530-332-7371	Enloe
Patty Arena	Patricia.arena@enloe.org	332 7465	Enloe
Lorie Mendoza AS Commissioner	LMendoza@buttecounty.net	552-4100	AS Dept
DAN BREEDON	DBREEDON@BUTTECOUNTY.NET		PDS

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Kickoff Meeting #1
February 5, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
DEREK BELL (LT)	dbell@buttecounty.net	693-7973	BCSO
DAN EFSEAFF	defseaff@ParadisePRPD.com	872-6393	PRPD
Gina House / Ops Supt.	gihou@water.ca.gov	530-534-2425	DWR
SCOTT MCCUTCHEON	Scottm@loapud.com	530-533-2000	LOAPUD
Cooper Cunningham	ccunningham@orovillehosp.com	624-4123	Oroville Hospital
RANDY MURPHY	RMURPHY@FRPD.com	533-2011	FRPD
JAYMIE PERRIN EH&S MGR	jperrin@southfeather.com	533-4578	S.F.W.P.A.
Courtney Farrell	cafarrell@csuchico.edu	570-5342	CSU Chico
Kristen McKillop	kmckillop@northstareng.com	893-1600	NYWD DID
ROD DAUGHERTY	rod.daugherty@caloes.ca.gov	916 624 8242	Cal OES
Mark Shelton	mwshelton@buttecounty.net	923-3071	Safety
Brian Ring	bring@buttecounty.net	552-3311	Admin
Tom Fossum	tfossum@buttecounty.net	538-7681	Public Works

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Kickoff Meeting #1
February 5, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Scott Thompson Park Supervisor	Scott@frrpd.com	5308645498	FRRPD
Jesse Alexander Division Chief	jesse.alexander@chicoca.gov	530-588-2823	Chico Fire
Ken Worman	Ken.Worman@CalOES	916-224-1892	CALOES
Victoria LaMarthaus	victoria.lamarthaus@calosca.gov	916-845-8531	CalOES
MARK SORENSEN			BIGGS
Steve Standridge	Steve.Standridge@chicoca.gov	897-3491	Chico Fire
John Messina	John.Messina@Fire.Ca.Gov	324-9891	CALFIRE/ Butte Co.
Dan Blair	Dan.Blair@pge.com	530-592-5004	PG+E
Jim Aranguren	jaranguren@buttecounty.net	5305523291	IS
Steve Lambert/County Supervisor	District4@Butte County.net	530-538-2516	Butte County BOS
Heather MacDonald/Analyst	HMacDonald@ButteCounty.net	530-552-3337	Butte County Admin

A.4 Risk Assessment Meeting (Part 1)

A.4.1. Email Invite to Risk Assessment (Part 1) Meetings

From: Souders, Kira <KSouders@buttecounty.net>
Sent: Monday, April 8, 2019 11:55 AM
To: Souders, Kira; Aranguren, Jim; Asia King; Bill Llewellyn; Bob Kiuttu; Breedon, Dan; Brenda Rightmyer; Calarco, Pete; Carolyn Nave; Chris Heindell; Chris Morrison; Dunsmoor, Cindi; Cooper Cunningham; Courtney Farrell; D. Brown; Dan Blair; Daniel Taverner; David Brillenz; Hawks, David; Bell, James; Doyle, Hunter@DWR; Driskill, Jessica; Edwards, Terry; Emma Reed; Evan Levang; Fossum, Tom; Francis Steele; Gary Archuleta; George Ballard; George Barber; Hatcher, Casey; Honea, Kory; Hooper, Greg; 'House, Gina@DWR'; Jeanine Foster; Jesse Alexander; Jesse Carpentier; Jim DeAngelo; Jim Passanisi; Joe Wilson; Messina, John; Jon Clark; Ken Leep; Ken Worman; Kim, Sang; Lambert, Steve; Lee Anne Schramel; Brian Wilson; Calli-Jane DeAnda; Dan Efseaff; Jaymie Perrin; Kristen McKillop; Matt Colwell; Randy Murphy; Scott McCutcheon; Scott Thompson; Bill LaGrone; Craig Baker; Ed Fortner; Boucher, James; Jim Broshears; Kevin Phillips; Lauren Gill; Mark Orme; Mark Sorensen; Paul Eckert; Lindsey Standley; Lynn Campbell; MacDonald, Heather; Mark Stemen; Mary Sakuma; Matt Washburn; McCracken, Shari; Mendoza, Louie; Michelle Wetmore; Miller, Jack@DWR; Patty Arena; Phil John; Ring, Brian; Rod Daugherty; Rudy Baltazar; Ryan Tompkins; Scott Henry; Shane Vargas; Shelton, Mark; Steve Standri dge; Teeter, Doug; Ursula Parker; Victoria LaMar-Haas; Wendy VanCott; Womack, Clint@DWR
Subject: Butte County Local Hazard Mitigation Plan - Risk Assessment Meeting
When: Wednesday, April 24, 2019 1:00 PM-4:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: 3 County Center Drive, Oroville CA 95965 - Human Resources Training Room West

Butte Hazard Mitigation Planning Committee:

You are invited to the second planning team meeting – The Risk Assessment Meeting – for the development of Butte County's Local Hazard Mitigation Plan (LHMP) Update. Earlier this year, Butte initiated its hazard mitigation planning effort, with support of Foster Morrison Consulting. Many of you attended the planning team kickoff meeting in February of this year. Over the past few months, the project team has been working to collect data to develop Chapter 4 of our LHMP, the Risk Assessment Chapter.

This upcoming meeting will be held on **Wednesday, April 24**. During this meeting, we will be reviewing the risk assessment data developed to date and will be looking for your feedback in refining and adding to this in-process Risk Assessment Chapter. Note: for all participating jurisdictions to this LHMP Update – please make sure you have provided all of the requested data and worksheets to Foster Morrison identified in the February 12th email follow-up to the kickoff meeting.

The Risk Assessment meeting will be held as follows:

Wednesday, April 24 at: 3 County Center Dr., Oroville CA 95965 – HR Training Room West from 1:00 pm to 4:00 pm

Please RSVP and plan on attending or delegating attendance to this Risk Assessment Meeting for the LHMP Update. Your input is critical to the success of this project.

Thank you,

Jeanine Foster, Foster Morrison Consulting (303) 717-7171
Cindi Dunsmoor, Butte County Emergency Services Officer (530) 552-3333
Kira Souders, Butte County Senior Management Analyst (530) 552-3321

A.4.2. Risk Assessment (Part 1) Meeting Agenda

Butte County
Local Hazard Mitigation Plan (LHMP) Update
HMPC Meeting #2 - Risk Assessment Part 1
April 24, 2019

1. Introductions
2. Status of the DMA Planning Process
3. Review of Risk Assessment
4. Review of Data Needs
5. Next Steps

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC #2 – Risk Assessment Part 1
April 24, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
MARY SAKUMA Butte Co. Supt. of Schools	msakuma@bcoe.org	532-5761	Butte Co Office of Education
JERRY WIGHT BCOE, DROC Liaison	jwight@bcoe.org	530-521-5803	Butte Co Supts Office
MARK SORENSEN	MARK@BIGGSCA.GOV		BIGGS
Shane Vargas CAL FIRE Land Use Planning	Shane.Vargas@fire.ca.gov	530-410-4225	CAL FIRE
MIKE HENSLEY	MHensley@Gridley.ca.us	530-846-6357	CITY OF GRIDLEY
JOE DEAL	JDEAL@OROPD.ORG	530-538.2448	ORDVILLE POLICE
Chris Heindell	cheindell@twsd.info	530 533-0740	TWSD
Kristen McKillop	kmckillop@northstareng.com	530-570-1290	NTWD DID
Tom Fossum	tfossum@buttecounty.net	530-538-7681	BC PW
Xing Liu	xing.liu@fema.dhs.gov.	510-627-7267	FEMA.
Emma Reed	emma.reed@fema.dhs.gov	202-718-3386	FEMA
Cindi Dunsmoor	cdunsmoor@buttecounty.net	530-552-3373	BCOEM
Courtney Farrell	cafarrell@csuchico.edu	530 5705342	CSU Chico GIC

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC #2 – Risk Assessment Part 1
April 24, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
SCOTT TUCKER - BCPN E. COORDINATOR	STUCKER@BUTTECOUNTY.NET	(530) 774 0848	BCPN
Ken Worman CALOES Hazard Mitigation	Ken.Worman@CALOES.CA.GOV	916-224-1892	Mitigation Planning Division
Adam Suttles	adam.suttles@caloes.ca.gov	916.213417[illegible]	" "
Stephanie Stephens	stephanie.stephens@caloes.ca.gov	(916) 845-8846	HMGP
Doug Leeter	dleeter@buttecounty.net	530 552 5000	BC Board of Supervisors
Jim DeAngelo	Jim.DeAngelo@caloes.ca.gov	505-415-2649	CAOES
DEREK BELL / BCSO LT.	jbell@buttecounty.net	530-538-6569	BCSO
BRIAN WILSON	brian@durhamrec.com	530.533.2011	FRRPD
Lauren Gill	lgill@townofparadise.com	530-872-[illegible]291 x112	Town of Paradise
John Messina	John.Messina@fire.ca.gov	530 529-9891	CALFIRE
GREG EATON	gregory.w.eaton@ey.com	708-288-5814	Town of PARADISE
Michelle Wetmore	mwetmore@farnorthernrc.org	530-895-8633	Far Northern Regional Center
Scott McCutcheon	scottm@loapud.com	530-533-2000	LAKE OROVILLE & ALERT P.U.D.

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC #2 – Risk Assessment Part 1
April 24, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
JAYMIE PERRIN EH&S MANAGER	jperrin@southfeather.com	530-533-4578	SOUTH FEATHER WATER + POWER AGENCY
Rob Hill	rhill@buttecounty.net	530-538-7381	Ag Comm. Dept.
DAN Breedon	DBreedon@BUTTECOUNTY.NET	552-3682	DSS SUCS
Kira Souders	ksouders@buttecounty.net	530-552-3321	County Admin

A.5 Risk Assessment Meeting (Part 2)

A.5.1. Email Invite to Risk Assessment (Part 2) Meetings

From: Souders, Kira <KSouders@buttecounty.net>
Sent: Wednesday, June 19, 2019 10:19 AM
To: Souders, Kira; Adam Sutkus; Aranguren, Jim; Asia King; Bill Llewellyn; Bob Kiuttu; Breedon, Dan; Brenda Rightmyer; Calarco, Pete; Carolyn Nave; Chris Heindell; Chris Morrison; Dunsmoor, Cindi; Cooper Cunningham; Courtney Farrell; D. Brown; Dan Blair; Daniel Taverner; David Brillenz; Hawks, David; Bell, James; Doyle, Hunter@DWR; Driskill, Jessica; Edwards, Terry; Emma Reed; Evan Levang; Francis Steele; Gary Archuleta; George Ballard; George Barber; Greg Eaton; Hatcher, Casey; Honea, Kory; Hooper, Greg; 'House, Gina@DWR'; Jeanine Foster; Jerry Hight; Jesse Alexander; Jesse Carpentier; Jim DeAngelo; Jim Passanisi; Joe Wilson; Messina, John; Jon Clark; Ken Leep; Ken Worman; Kim, Sang; Lambert, Steve; Lee Anne Schramel; Brian Wilson; Calli-Jane DeAnda; Dan Efseaff; Jaymie Perrin; Kristen McKillop; Matt Colwell; Randy Murphy; Scott McCutcheon; Scott Thompson; Bill LaGrone; Craig Baker; Ed Fortner; Jayme Boucher; Jim Broshears; Joe Deal; Kevin Phillips; Lauren Gill; Mark Orme; Mark Sorensen; Mike Hensley; Paul Eckert; Lindsey Standley; Lynn Campbell; MacDonald, Heather; Mark Stemen; Mary Sakuma; Matt Washburn; McCracken, Shari; Mendoza, Louie; Michelle Wetmore; Miller, Jack@DWR; Patty Arena; Phil John; Ring, Brian; Hill, Rob; Rod Daugherty; Rudy Baltazar; Ryan Tompkins; Scott Henry; Tucker, Scott; Shane Vargas; Shelton, Mark; Stehanie Stephens; Kenny, Stephen J.; Steve Standridge; Teeter, Doug; Ursula Parker; Victoria LaMar-Haas; Wendy VanCott; Womack, Clint@DWR; Xing Liu
Subject: Butte LHMP Risk Assessment Meeting Part 2
When: Wednesday, July 17, 2019 1:00 PM-4:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: 3 County Center Drive, Oroville CA 95965 - Human Resources Training Room West

Butte County Hazard Mitigation Planning Committee:

You are invited to the third planning team meeting for the development of Butte County's 2019 Local Hazard Mitigation Plan (LHMP) Update - Risk Assessment Meeting Part 2. Earlier this year, Butte initiated its hazard mitigation planning effort, with support of Foster Morrison Consulting. Many of you attended the planning team kickoff meeting in February of this year and the Risk Assessment Meeting Part 1 in April. Over the past few months, the Foster Morrison team have been working to collect data to develop Chapter 4 of our LHMP, the Risk Assessment Chapter and to develop the jurisdictional annexes for participating jurisdictions.

This upcoming Risk Assessment Part 2 meeting will be held on Wednesday, July 17. During this meeting, we will be reviewing the additional risk assessment data and analyses and will be looking for your feedback in refining and adding to this in-process Risk Assessment Chapter. We will also be focusing on LHMP requirements and status for participating jurisdictions.

The meeting will be held as follows:

Wednesday, July 17 at: 3 County Center Dr., Oroville CA 95965 – HR Training Room West from 1:00 pm to 4:00 pm

Please RSVP and plan on attending or delegating attendance to this Risk Assessment Meeting for the LHMP Update. Your continued input is critical to the success of this project.

Thank you,

Jeanine Foster, Foster Morrison Consulting (303) 717-7171
Cindi Dunsmoor, Butte County Emergency Services Officer (530) 552-3333

A.5.2. Risk Assessment (Part 2) Meeting Agenda

Butte County
Local Hazard Mitigation Plan (LHMP) Update
HMPC Meeting #3 - Risk Assessment Part 2/LHMP Goals
July 17, 2019

1. Introductions
2. Status of the DMA Planning Process
3. Review of Risk Assessment Part 2
4. Review of Data Needs
5. Mitigation Strategy: Goals Development
6. Mitigation Strategy: Initial Mitigation Action Strategy Discussion and Preparation
7. Next Steps

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Risk Assessment #2 – Goals Meeting
July 17, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Donna Decker Planning Director	ddecker@desllc.net	(530) 768-5090	City of Gridley
Stephen Kenny CEO	skenny@buttecountyfair.org	530 846-3626	Butte County Fairground
Sandy Fritzwell	sandy@sdfconsults.com	530-263-4576	Butte Co. Fairgrd.
Kira Souders	ksouders@buttecounty.net	530-552-3321	Butte County Admin
Chris Heindell	cheindell@twsd.info	(530) 533-0740	Thermalito Water & Sewer
Jim Houtman	jimh@buttefiresafe.net	530-762-9717	Butte County Fire Safe Council
JAYMIE PERRIN	JPERRIN@SOUTHFEATHER.COM	530-534-2223	SOUTH FEATHER WATER & POWER AGENCY
Mark Shelton	mwshelton@buttecounty.net	530-923-3071	Safety
STEPHANIE STEPHENS	stephanie.stephens@caloes.ca.gov	(916) 845-8844	CAL OES - HAZARD MITIGATION
Dan Breedon	DBREEDON@BUTTECOUNTY.net	530-552-3282	BUTTE DEV. SVCS
Shari McCracken	smccracken@buttecounty.net	530-552-3305	Butte CAO
Kristen McKillop	kimckillop@northstareng.com	530-893-1600	Durham Irrigation, North Yuba Water District
JERRY HIGHT	jhight@bcoe.org	530-521-5803	Butte Co Office of Ed.

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Risk Assessment #2 – Goals Meeting
July 17, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
CINDI DUNSMOOR ESD	Cdunsmoor@buttecounty.net	530-552-3333	BUTTE OEM
Steve Crowder PARADISE TOWN COUNCIL	SCROWDER@TOWNOFPARADISE.COM	530 559-4365	TOWN OF PARADISE
Rob Hill	rhill@buttecount.net	530 552-4100	Ag Comm.
Steve Lambert	slambert@butte county.net	530-538-2516	BOS CHAIR
Scott Thompson Park Sup.	Scott@frrpd.com	864 5498	FRRPD
Jason Mandly	jmandly@bcaqmd.org	332-9400	Air Quality
SCOTT MCCUTCHEON	Scottm@loapud.com	533-2000	LOAPUD
MARK SORENSEN	MARK@BIGGS.CA.GOV		BIGGS
STEVE COLLINS	scollins@buttecounty.net	693-7101	BCSO
Karen McCready-Hoover	Karen.mccreadyhoover@caloes.ca.gov	(916) 845-8177	Cal OES
Dan Efseaff	defseaff@ParadisePRPD.com	530 872-6393	Paradise Rec & Park District
KELLY RILEY	Kelly.Riley@caloes.ca.gov	916 500 2544	Cal OES
Victoria La Mar-Haas	victoria.lamar-haas@caloes.ca.gov	916 845 8531	Cal OES

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Risk Assessment #2 – Goals Meeting
July 17, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Ken Worman	Ken.Worman@CALOES.CA.GOV	916-224-1892	CalOES HM Planning
John Messina	John.Messina@fire.ca.gov	530 329-9891	CALFIRE/Butte Co./Paradise
Doug Teeter	dteeter@buttecounty.net		Butte County

A.6 Mitigation Strategy Meetings

A.6.1. Email Invites to Mitigation Strategy Meetings

From: Souders, Kira <KSouders@buttecounty.net>
Sent: Thursday, July 18, 2019 11:52 AM
To: Souders, Kira; 'House, Gina@DWR'; Adam Sutkus; Aranguren, Jim; Asia King; Bell, James; Bill LaGrone; Bill Llewellyn; Bob Kiuttu; Breedon, Dan; Brenda Rightmyer; Brian Wilson; Calarco, Pete; Calli-Jane DeAnda; Carolyn Nave; Chris Heindell; Chris Morrison; Collins, Stephen; Cooper Cunningham; Courtney Farrell; Craig Baker; D. Brown; Dan Blair; Dan Efseaff; Daniel Taverner; David Brillenz; Donna Decker; Doyle, Hunter@DWR; Driskill, Jessica; Dunsmoor, Cindi; Ed Fortner; Edwards, Terry; Emma Reed; Evan Levang; Francis Steele; Gary Archuleta; George Ballard; George Barber; Greg Eaton; Hatcher, Casey; Hawks, David; Hill, Rob; Honea, Kory; Hooper, Greg; Jayme Boucher; Jaymie Perrin; Jeanine Foster; Jerry Hight; Jesse Alexander; Jesse Carpentier; Jim Broshears; Jim DeAngelo; Jim Passanisi; Joe Deal; Joe Wilson; Jon Clark; Ken Leep; Ken Worman; Kenny, Stephen J.; Kevin Phillips; Kim, Sang; Kristen McKillop; Lambert, Steve; Lauren Gill; Lee Anne Schramel; Lindsey Standley; Lynn Campbell; MacDonald, Heather; Mark Orme; Mark Sorensen; Mark Stemen; Mary Sakuma; Matt Colwell; Matt Washburn; McCracken, Shari; Mendoza, Louie; Messina, John; Michelle Wetmore; Mike Hensley; Miller, Jack@DWR; Patty Arena; Paul Eckert; Phil John; Randy Murphy; Ring, Brian; Rod Daugherty; Rudy Baltazar; Ryan Tompkins; Scott Henry; Scott McCutcheon; Scott Thompson; Shane Vargas; Shawn Rohrbacker; Shelton, Mark; Stehanie Stephens; Steve Standridge; Teeter, Doug; Tucker, Scott; Ursula Parker; Victoria LaMar-Haas; Wendy VanCott; Womack, Clint@DWR; Xing Liu
Cc: Donna Decker; Lord, John; Nuzum, Danielle; Quin, Aaron; Quist, Katharine; Scordino, JoAnn; Scott Thompson; jim.deangelo@hagertyconsulting.com
Subject: Butte LHMP Mitigation Strategy Meeting #1
When: Tuesday, July 30, 2019 1:00 PM-4:00 PM (UTC-08:00) Pacific Time (US & Canada).
Where: 3 County Center Drive, Oroville CA 95965 - Human Resources Training Room West

All,

Thanks to everyone who attended this week's LHMP Meeting #3. As a follow up to this meeting and as preparation for the upcoming meetings, the following is attached:

--the 2014 Mitigation Strategy Update Worksheet – please provide an update to the mitigation actions from the 2014 Butte County LHMP by completing the status of 2014 actions in BOTH the Table AND via Text briefly describing the status of these past actions. This information is organized by Participating Jurisdictions to the 2014 LHMP. Please provide this information electronically in advance of our upcoming meetings.

--the Mitigation Action Worksheet for 2019 LHMP mitigation actions – this worksheet will need to be completed for all actions that will be included in this 2019 Butte County LHMP Update. For current projects that you know will be included in this Update, such as current FEMA NOIs, you can complete this form in advance of the meetings. You can also wait and provide completed mitigation action worksheets as a follow up to the next meetings.

Upcoming Mitigation Strategy Meetings. You are invited to the 4rd and 5th planning team meetings for the development of Butte County's LHMP Update. These upcoming meetings will be held on July 30 & 31, and will continue the most important phase of our LHMP planning process – the Mitigation Strategy.

Our focus for these meetings will be identifying and prioritizing potential mitigation actions for reducing each community's risk and vulnerability to identified hazards and disasters

The meetings will be held as follows:

Tuesday, July 30 at: 3 County Center Dr., Oroville CA 95965 – HR Training Room West from 1:00m - 4:00pm

Wednesday, July 31 at: 3 County Center Dr., Oroville CA 95965 – HR Training Room West from 9:00am - 12:00pm

Please RSVP and plan on attending or delegating attendance to these important meetings. Everyone with mitigation project ideas should attend. County, city and agency participation and coordination is a requirement of an approved plan, as is the inclusion of any hazard data, information, and mitigation projects your department or agency may want to see included in the plan. Your continued participation and input is critical to the success of this project.

Thank You!

> ***Note:*** *The 2nd Mitigation Strategy Meeting (on July 31, 2019) was cancelled due to the addition of a second Risk Assessment Meeting, where the first part of the Mitigation Strategy (Goals) was also addressed, and due to the efficiencies of the HMPC in working through Mitigation Actions and Projects during this first Mitigation Strategy Meeting on July 30, 2019.*

A.6.2. Mitigation Strategy Meeting Agenda

Butte County
Local Hazard Mitigation Plan (LHMP) Update
Mitigation Strategy Meetings
July 30, 2019

HMPC Meeting #2:

1. Introductions
2. Status of the DMA Planning Process
3. Risk Assessment Update
4. Outstanding Items
5. Develop Updated Plan Goals and Objectives
6. Identify and Review Mitigation Alternatives/Projects

HMPC Meeting #3:

7. Introductions
8. Identify and discuss Mitigation Alternatives/Projects
9. Review Mitigation Selection Criteria
10. Prioritize Mitigation Projects
11. Mitigation Action Worksheet
12. Review of Schedule/Next Steps

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC #4 – Mitigation Strategy Meeting
July 30, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
JAYMIE PERRIN / EH+S MANG.	jperrin@southfeather.com	530-534-2223	SFWPA
SANDY FRIZZELL	sandy@sdfconsults.com	530-263-4576	Butte Co. Fairgrounds
Donna Decker	ddecker@deslic.net	530-768-5090	city of Gridley
Cindi Dunsmoor	cdunsmoor@buttecounty.net	530-552-3333	BUTTE OEM
Victoria LaMar-Haas	victoria.lamar-haas@caloes.ca.gov	916-845-8531	Cal OES
Steve CROWDER Council MAN TOWN of PARADISE	SCROWDER@TOWNOFPARADISE.COM	530 559-4365	TOWN of PARADISE
Jim DeAngelo	Jim.DeAngelo@caloes.ca.gov	505-415-2649	OES
KELLY RILEY	Kelly.Riley@caloes.ca.gov	916 500 2544	OES
Maria Hurtado	mhurtado@buttecounty.net		Butte OEM
Chris Heindell	cheindell@twsd.info	(530) 533-0770	TWSD
JERRY HIGHT	jhight@bcoe.org	530.521.5803	BCOE
GEORGE BARBER	GBARBER@CALWATER.COM	530-513-1497	CAL WATER
Jason Mandly	jmandly@bcaqmd.org	530-332-9400 x108	Air Quality

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC #4 – Mitigation Strategy Meeting
July 30, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Scott McLachlan GM.	Scottm@loapud.com	530-533-2000	LOAPUD
Dan W. Sanders	dsanders@loapud.com	530-520-7118	LOAPUD
JOHN GADDIE	JOHN.GADDIE@FIRE.CA.GOV	530-538-7111	CAL FIRE/BCFD
MARK SORENSEN	MARK@BIGGS-CA.GOV		BIGGS
PETE CALARCO	pcalarco@buttecounty.net	530.532.3641	Butte Co.
GREG EATON	gregory.w.EATON@Eyecom	708.288.5894	Town of Paradise
Scott Thompson Park Sup.	Scott@frrpd.com	530 864 5498	FRRPD
Jesse Alexander	jesse.alexander@chicoca.gov	530 588-2523	Chico FD
STEVE COLLINS	scollins@buttecounty.net	530-693-7101	BCSO
STEVE SOLANO	ssolano@oropd.org	530 538-2059	Oroville PD
Kira Sanders	ksanders@buttecounty.net	530 552 3324	Butte County Admin

A.7 Final Team Meeting

A.7.1. Final Team Meeting Invite

From: Dunsmoor, Cindi <CDunsmoor@buttecounty.net>
Sent: Friday, September 27, 2019 6:38 PM
To: Driskill, Jessica <JDriskill@buttecounty.net>; Hawks, David <David.Hawks@fire.ca.gov>; Calarco, Pete <PCalarco@buttecounty.net>; Edwards, Terry <TEdwards@buttecounty.net>; MacDonald, Heather <HMacDonald@buttecounty.net>; Breedon, Dan <DBreedon@buttecounty.net>; 'holly@sacriver.org' <holly@sacriver.org>; 'mark@biggs-ca.gov' <mark@biggs-ca.gov>; 'mark.orme@chicoca.gov' <mark.orme@chicoca.gov>; 'jesse.alexander@chicoca.gov' <jesse.alexander@chicoca.gov>; 'eckert@gridley.ca.us' <eckert@gridley.ca.us>; 'des.llc@comcast.net' <des.llc@comcast.net>; 'blagrone@oropd.org' <blagrone@oropd.org>; 'lgill@townofparadise.com' <lgill@townofparadise.com>; 'prafirejb@comcast.net' <prafirejb@comcast.net>; 'mmattox@townofparadise.com' <mmattox@townofparadise.com>; 'cbaker@townofparadise.com' <cbaker@townofparadise.com>; Messina, John <John.Messina@fire.ca.gov>; 'shawn@frrpd.com' <shawn@frrpd.com>; 'scottt@frrpd.com' <scottt@frrpd.com>; 'brian@frrpd.com' <brian@frrpd.com>; 'scottm@loapud.com' <scottm@loapud.com>; 'mcolwell@southfeather.com' <mcolwell@southfeather.com>; 'jboucher@twsd.info' <jboucher@twsd.info>; 'cheindell@twsd.info' <cheindell@twsd.info>; 'kphillips@paradiseirrigation.com' <kphillips@paradiseirrigation.com>; 'jpassanisi@paradiseirrigation.com' <jpassanisi@paradiseirrigation.com>; 'defseaff@paradiseprpd.com' <defseaff@paradiseprpd.com>; 'firesafe@buttefiresafe.net' <firesafe@buttefiresafe.net>; 'daniel.taverner@ca.usda.gov' <daniel.taverner@ca.usda.gov>; 'evan@actionctr.org' <evan@actionctr.org>; 'carolyn@actionctr.org' <carolyn@actionctr.org>; 'mwetmore@farnorthernrc.org' <mwetmore@farnorthernrc.org>; 'gbarber@calwater.com' <gbarber@calwater.com>; 'jclark@bcag.org' <jclark@bcag.org>; Shelton, Mark <MWShelton@buttecounty.net>; 'Rod.Daugherty@caloes.ca.gov' <Rod.Daugherty@caloes.ca.gov>; Lindsey, Stanley <Lindsey.Stanley@caloes.ca.gov>; Aranguren, Jim <JAranguren@buttecounty.net>; Hooper, Greg <ghooper@buttecounty.net>; Hatcher, Casey <CHatcher@buttecounty.net>; 'ccunningham@orohosp.com' <ccunningham@orohosp.com>; 'VanCotWG@ah.org' <VanCotWG@ah.org>; 'bob.kiuttu@enloe.org' <bob.kiuttu@enloe.org>; 'mwashburn@orchardhospital.com' <mwashburn@orchardhospital.com>; 'brightmyer@att.net' <brightmyer@att.net>; 'pjohn7179@aol.com' <pjohn7179@aol.com>; Bell, James <JBell@buttecounty.net>; McCracken, Shari <SMcCracken@buttecounty.net>; Honea, Kory <KHonea@buttecounty.net>; 'steve.standridge@chicoca.gov' <steve.standridge@chicoca.gov>; Kim, Sang <skim@buttecounty.net>; Ring, Brian <bring@buttecounty.net>; 'dbrown@berrycreekrancheria.com' <dbrown@berrycreekrancheria.com>; 'Francis.Steele@berrycreekrancheria.com' <Francis.Steele@berrycreekrancheria.com>; 'info@enterpriserancheria.org' <info@enterpriserancheria.org>; 'gwarchuleta@mooretown.org' <gwarchuleta@mooretown.org>; 'mgarcia@mechoopda-nsn.gov' <mgarcia@mechoopda-nsn.gov>; 'cklinesteker@mechoopda-nsn.gov' <cklinesteker@mechoopda-nsn.gov>; 'gballard@mechoopda-nsn.gov' <gballard@mechoopda-nsn.gov>; 'mstemen@csuchico.edu' <mstemen@csuchico.edu>; 'j8we@pge.com' <j8we@pge.com>; Mendoza, Louie <LMendoza@buttecounty.net>; Lambert, Steve <SLambert@buttecounty.net>; Teeter, Doug <DTeeter@buttecounty.net>; 'victoria.LaMar-Haas@caloes.ca.gov' <victoria.LaMar-Haas@caloes.ca.gov>; 'emma.reed@fema.dhs.gov' <emma.reed@fema.dhs.gov>; 'jesse.carpentier@fema.dhs.gov' <jesse.carpentier@fema.dhs.gov>; Jeanine Foster <jeanine.foster@fostermorrison.com>; Chris Morrison <chris.morrison@fostermorrison.com>; Souders, Kira <KSouders@buttecounty.net>; 'shane.vargas@fire.ca.gov' <shane.vargas@fire.ca.gov>; 'scott.henry@fire.ca.gov' <scott.henry@fire.ca.gov>; 'rudy.baltazar@fire.ca.gov' <rudy.baltazar@fire.ca.gov>; 'asia.king@fema.dhs.gov' <asia.king@fema.dhs.gov>; 'davidbbrillenz@fs.fed.org' <davidbbrillenz@fs.fed.org>; 'easchramel@fs.fed.us' <easchramel@fs.fed.us>; 'rtompkins@fs.fed.us'

<rtompkins@fs.fed.us>; 'lynn.campbell@sierranevada.ca.gov' <lynn.campbell@sierranevada.ca.gov>; 'uparker@bcaqmd.org' <uparker@bcaqmd.org>; Messina, John <John.Messina@fire.ca.gov>; 'jesse.alexander@chicoca.gov' <jesse.alexander@chicoca.gov>; 'msakuma@bcoe.org' <msakuma@bcoe.org>; 'cheindell@twsd.info' <cheindell@twsd.info>; 'barry.ceccon@wildlife.ca.gov' <barry.ceccon@wildlife.ca.gov>; 'jfdeangelo@gmail.com' <jfdeangelo@gmail.com>; 'Ken.Leep@weareharris.com' <Ken.Leep@weareharris.com>; 'wldlm131@gmail.com' <wldlm131@gmail.com>; 'patricia.arena@enloe.org' <patricia.arena@enloe.org>; 'gina@water.ca.gov' <gina@water.ca.gov>; 'jperrin@southfeather.com' <jperrin@southfeather.com>; 'cafarrell@csuchico.edu' <cafarrell@csuchico.edu>; 'ken.worman@caloes.ca.gov' <ken.worman@caloes.ca.gov>; 'dan.blair@pge.com' <dan.blair@pge.com>; 'gbender@orchardhospital.com' <gbender@orchardhospital.com>; 'jhight@bcoe.org' <jhight@bcoe.org>; 'jdeal@oropd.org' <jdeal@oropd.org>; 'xing.liu@fema.dhcs.gov' <xing.liu@fema.dhcs.gov>; Tucker, Scott <STucker@buttecounty.net>; 'adam.sutkus@caloes.ca.gov' <adam.sutkus@caloes.ca.gov>; 'stephanie.stephens@caloes.ca.gov' <stephanie.stephens@caloes.ca.gov>; 'gregory.w.eaton@ey.com' <gregory.w.eaton@ey.com>; Hill, Rob <RHill@buttecounty.net>; Kenny, Stephen J. <skenny@buttecountyfair.org>; Collins, Stephen <SCollins@buttecounty.net>; 'krystle.mache@water.ca.gov' <krystle.mache@water.ca.gov>; 'jmandly@bcaqmd.org' <jmandly@bcaqmd.org>; Lucas, Steve <SLucas@buttecounty.net>
Subject: Local Hazard Mitigation Plan Update - Update

Hello Everyone,

Please see below information on the final steps for the 2019 Butte County LHMP Update:

LHMP Public Review Draft and Public Meeting. The LHMP Public Review Draft will be up on the County website for public review and comment by **Tuesday October 2** at: http://www.buttecounty.net/oem/mitigationplans. Hard copies of the LHMP will also be placed at all Butte County libraries. A public meeting on the Draft LHMP Update will be held **Wednesday October 16, from 5:30pm – 7:00 pm at 25 County Center Dr., Suite 200, Oroville CA 95965 – Board of Supervisors Chambers**. A press release is being issued by the County. Please help get the word out to the public.

Final HMPC Meeting. Our final planning team meeting is scheduled for **Thursday October 17, from 1:00pm – 4pm, at 3 County Center Dr., Oroville CA 95965 – HR Training Room West**. It is important that everyone attend this final meeting to address any public comments received and to finalize all input to the plan.

Final LHMP Input. All final planning team input to the Draft LHMP needs to be provided **no later than Friday October 11, in order to meet our submittal deadline to Cal OES and FEMA.** Please take this time to download and review the document from the County website or from the project Dropbox: https://www.dropbox.com/sh/6xhbeqloanr3t0x/AABBGtY8gykSbTo0Vhi76Q3Ma?dl=0. You will see the Public Review Draft folder. This Public Review Draft will be available on the Dropbox by COB Friday September 27.

Also included on the Dropbox are updated Items to Complete documents that will assist in locating any yellow highlighted areas in the document where we still need planning team input. Any green highlighted areas will be filled in by Foster Morrison. This information is critical to ensure our plan will be approved by Cal OES and FEMA.

If you have any questions, please contact Jeanine Foster at Jeanine.foster@fostermorrison.com or 303.717.7171, or Cindi Dunsmoor at CDunsmoor@buttecounty.net or 530.552.3333.

Thank you for your continued engagement in the process. We are in the final stretch!

Cindi Dunsmoor
Jeanine Foster

Cindi Dunsmoor
Emergency Services Officer
Office of Emergency Management
25 County Center Drive, Suite 213, Oroville, CA 95965
T: 530.552.3333 | F: 530.538.3831
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A.7.2. Final Team Meeting Agenda

AGENDA
Butte County Local Hazard Mitigation Plan (LHMP) Update
Final Meeting
October 17, 2019

1. Introductions
2. Status of the LHMP Update Process
3. Addressing Public Comments
4. Summary of Changes in Butte County Planning Area Vulnerabilities/ Mitigation Priorities
5. Public Input: Data/Projects
6. Final Steps

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
HMPC Final Meeting #5
October 17, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Jim DeAngelo	Jim.DeAngelo@GMAIL.COM	505-415-2649	Cal OES
SANDY Frizzell	sandy@sdfconsults	530 263 4576	Butte County Fairground
Scott McCutcheon	scottm@loapud.com	530 533 2000	L.O.A.P.U.D
JAYMIE PERRIN	jperrin@southfeather.com	530-534-2223	SFWPA
Chris Heindell	cheindell@twsd.info	530-533-0740	TWSD
DAN Efseaff	defseaff@ParadisePRPD.com	530-872-6393	Paradise Rec & Park District
JERRY HIGHT	Jhight@bcoe.org	530.521.5803	Butte Co Office of Ed.
Lauren Sugay	lsugay@buttecounty.net	310-218-9456	Butte County Dept. of Develop. - Planning
Shawn Rohrbacker	shawn@frrpd.com	530-533-2011	Feather River Recreation + Park District
Jesse Alexander	jesse.alexander@chicoca.gov	530-588-2823	Chico Fire
STEVE SOLANO	ssolano@oropd.org	530-538-2059	OROVILLE PD
TARA RHODES	rockcreekreclamation@aol.com	530-567-1725	Rock Creek Reclamation District
Kim Souders	ksouders@buttecounty.net	530-552-3321	Butte County Admin

A.8 Public Involvement

A.8.1. Early Public Meeting Flyer

Help Reduce Disaster Losses in Your Community by Participating in the Butte County Local Hazard Mitigation Plan Update

Butte County is developing a Local Hazard Mitigation Plan (LHMP) Update to their 2014 plan. The purpose of this LHMP Update is to assess risk to natural hazards, implement actions to reduce future losses, and maintain eligibility for federal mitigation funds in accordance with the Disaster Mitigation Act of 2000. Partners in this planning effort include the five incorporated communities and many special districts throughout the County.

What is Hazard Mitigation?

Hazard mitigation means any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards.

Why is Natural Hazard Mitigation Important?

Most people who live or work in Butte County have been affected by natural hazards in one way or another. Butte County and its residents are vulnerable to a variety of hazards including floods, dam failure, drought, wildfire, and other severe weather events.

The rising costs associated with disaster response and recovery have focused the attention of federal, state, and local governments on addressing natural hazards before they occur. For example, torrential rains and floods cannot always be prevented from occurring. Planning for natural hazards and implementing mitigation measures, however, can reduce the impact of such events when they do occur. Emergency response and recovery costs; property damage; personal injury and loss of life; and the overall economic and social impact on the community can all be reduced, and in some instances eliminated through natural hazard mitigation.

Local Hazard Mitigation Plan and Plan Update Process

After securing Federal Emergency Management Agency (FEMA) mitigation grant funding, Butte County is using the funds to support an update of the 2014 LHMP. This LHMP Update is being developed by a Hazard Mitigation Planning Committee comprised of representatives from various County and City departments; neighboring jurisdictions, key federal, state, and local agency stakeholders and the public.

The plan addresses an updated list of hazards, assesses the likely impacts of these hazards to the people and assets of the Butte County planning area, and establishes updated goals and prioritizes projects to reduce the impacts of future disasters on people and property as well as to critical facilities and infrastructure.

Opportunities for Input

Members of the community have a very important role in this process. A draft of the LHMP Update is available for review and comment by the public and all interested stakeholders on the County website at: http://www.buttecounty.net/oem/mitigationplans and in Butte County public libraries. A public meeting on the Draft Plan is scheduled for Wednesday October 16 from 5:30 – 7:00 pm at the Board of Supervisors Chambers, 25 County Center Drive, Oroville. All interested stakeholders and members of the public are welcome to attend.

For more information on this project contact the following individuals:

Cindi Dunsmoor	**Jeanine Foster**
Butte County, Office of Emergency Management	Foster Morrison Consulting Ltd.
Phone: (530) 552-3333	Phone: (303) 717-7171
cdunsmorr@buttecounty.net	jeanine.foster@fostermorrison.com

A.8.2. Early Public Meeting Invite Flyer

County of Butte
Local Hazard Mitigation Plan Update: Kickoff Meeting
Public Meeting #1 - Press Release

Get Involved!

HELP YOUR COMMUNITY BE HAZARD-READY!

Butte County, CA: Butte County is partnering with the incorporated communities and several special districts to update their 2014 Local Hazard Mitigation Plan (LHMP). Floods, drought, wildfires, and severe weather are just a few of the hazards of concern to our local communities. While natural hazards such as these cannot be prevented, an LHMP forms the foundation for a community's long-term strategy to reduce disaster losses by breaking the repeated cycle of disaster damage and reconstruction. Communities with a FEMA-approved LHMP are eligible to apply for both pre- and post-disaster mitigation grant funding.

The people most aware of potential hazards are the people that live and work in the affected communities. In addition to plan participation by local, state and federal agencies, the community is seeking members of the public to participate in our LHMP Update process.

An initial public information meeting will be held in the following location:

February 5, 2019
LHMP Public Information Meeting at 1:00pm
Board of Supervisors Chambers
25 County Center Dr., Suite 205, Oroville, CA

If you have questions, please contact Cindi Dunsmoor at (530) 552-3333, or email at cdunsmoor@buttecounty.net, or Kira Souders at (530) 552-3321, or email at ksouders@buttecounty.net. For more information and to review the 2014 LHMP document, please go to http://www.buttecounty.net/oem/mitigationplans.

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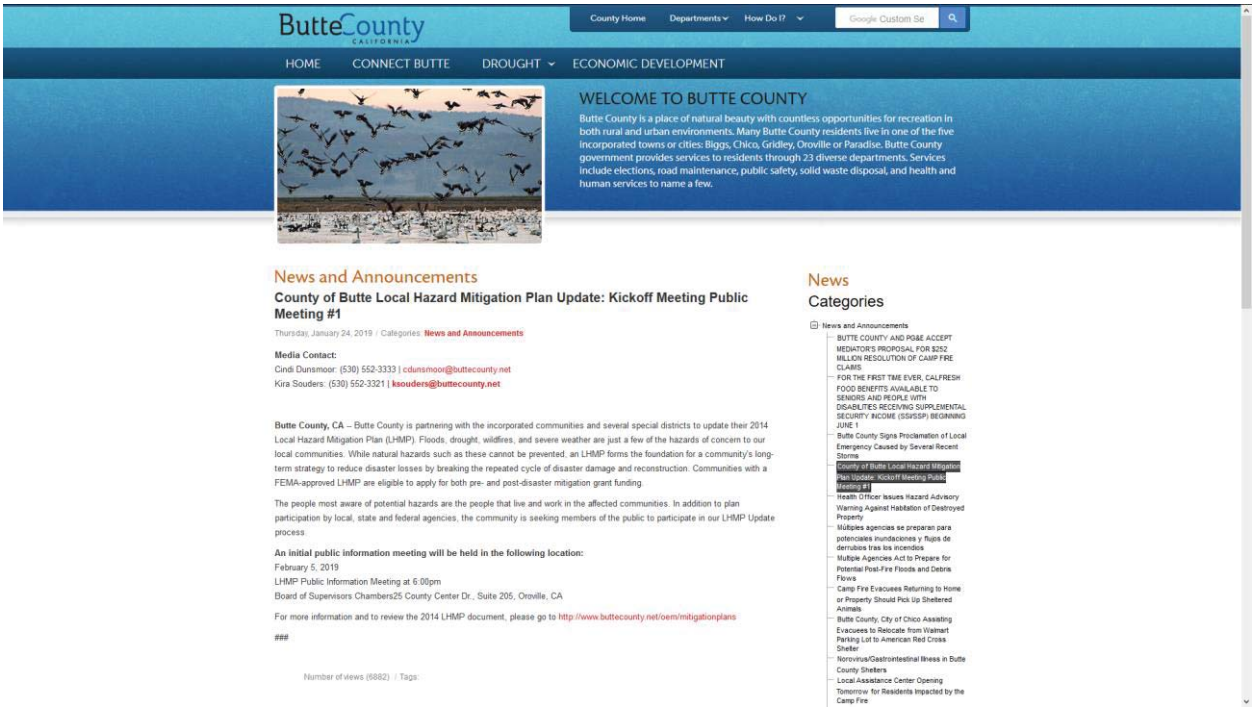
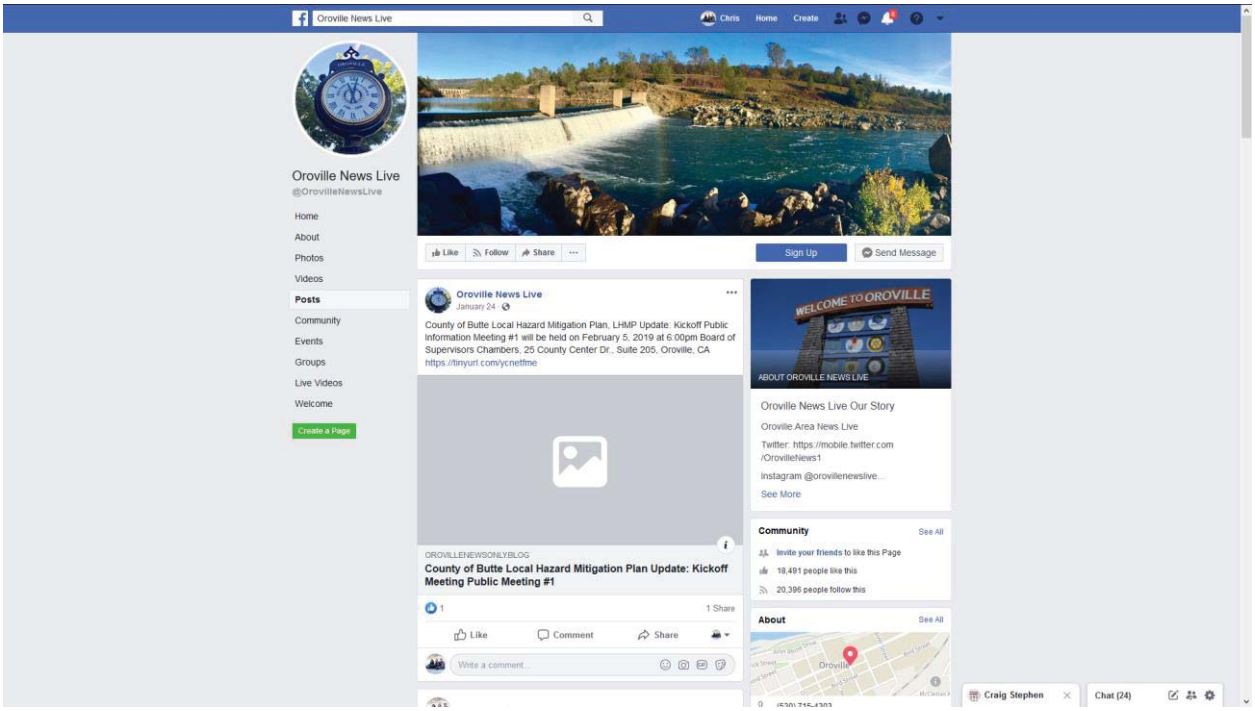
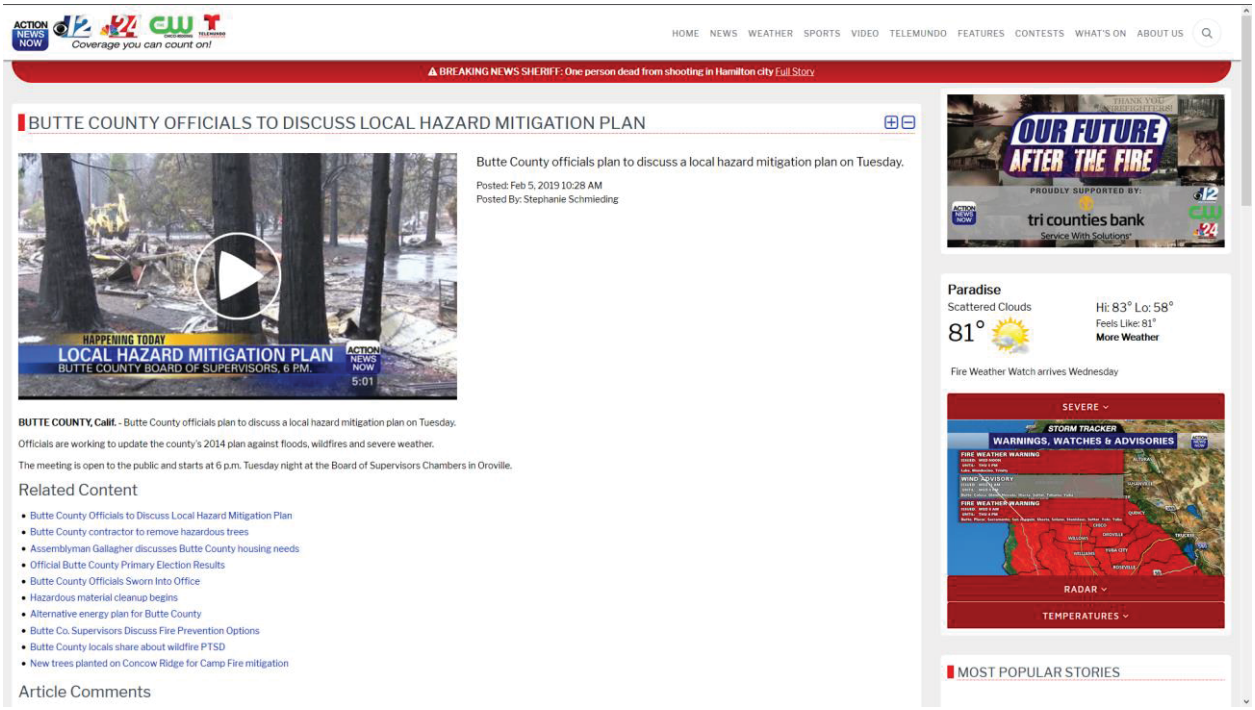
A.8.3. Early Public Meeting Outreach on Butte County Website



A.8.4. Early Public Meeting Outreach on Facebook



A.8.5. Early Public Meeting Article on Action News Now



ACTION NEWS NOW Coverage you can count on!

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BUTTE COUNTY OFFICIALS TO DISCUSS LOCAL HAZARD MITIGATION PLAN

HAPPENING TODAY
LOCAL HAZARD MITIGATION PLAN
BUTTE COUNTY BOARD OF SUPERVISORS, 6 PM.
5:01

Butte County officials plan to discuss a local hazard mitigation plan on Tuesday.

Posted: Feb 5, 2019 10:28 AM
Posted By: Stephanie Schmieding

BUTTE COUNTY, Calif. - Butte County officials plan to discuss a local hazard mitigation plan on Tuesday.

Officials are working to update the county's 2014 plan against floods, wildfires and severe weather.

The meeting is open to the public and starts at 6 p.m. Tuesday night at the Board of Supervisors Chambers in Oroville.

Related Content

- Butte County Officials to Discuss Local Hazard Mitigation Plan
- Butte County contractor to remove hazardous trees
- Assemblyman Gallagher discusses Butte County housing needs
- Official Butte County Primary Election Results
- Butte County Officials Sworn Into Office
- Hazardous material cleanup begins
- Alternative energy plan for Butte County
- Butte Co. Supervisors Discuss Fire Prevention Options
- Butte County locals share about wildfire PTSD
- New trees planted on Concow Ridge for Camp Fire mitigation

Article Comments

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A.8.6. Early Public Meeting: Kickoff Meeting – Public Agenda

Butte County
Local Hazard Mitigation Plan (LHMP)
Public Meeting #1
February 5, 2019

1. Introductions
2. Hazard Mitigation & the Disaster Mitigation Act Planning Requirements
3. Hazard Identification and Profiles
4. Opportunities for Public Participation and Input
5. Schedule
6. Questions and Answers

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
Public Meeting #1
February 5, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Chris Jennings	cjeningsbatik@earthlink.net	530 680-3559	
Robert Catalano	jakeshuman2@earthlink.net	530 588-4541	HRCBA
Frank Stewart	rpf235@comcast.net	530-893-4952	CFSC
Jason Hammond	jhammond@calwater.com	530-893-6315	California Water Svc
Kathy Fracolli	mamafracolli@gmail.com	925-640-3489	
John Gaddis	JOHN.GADDIS@FIRE.CA.GOV		CAL FIRE/BCFD
Kira Souders Sr. Mgmt analyst	ksouders@buttecounty.net	530-552-3321	Butte County Admin

A.8.8. Press Release for Final Public Meeting: Review of Plan – Public

From: McAfee-Bowersox, Miranda <MMcAfee-Bowersox@buttecounty.net>
Sent: Wednesday, October 2, 2019 1:51 PM
Subject: Press Release: Butte County Invites Comments on their Local Hazard Mitigation Plan

Butte County Administration Cindi Dunsmoor, Emergency Services (

Office of Emergency Management
25 County Center Drive, Suite 213
Oroville, California 95965
T: 530.552.3333
F: 530.538.3831
buttecounty.n

For Immediate Release
October 2, 2019

Butte County Invites Comments on their Local Hazard Mitigation Plan

HELP YOUR COMMUNITY BE HAZARD-READY!

Butte County, CA: Butte County is partnering with the incorporated communities and numerous special districts to update their 2014 Local Hazard Mitigation Plan (LHMP). Floods, drought, wildfires, and severe weather are just a few of the hazards of concern to our local communities. While natural hazards such as these cannot be prevented, an LHMP forms the foundation for a community's long-term strategy to reduce disaster losses by breaking the repeated cycle of disaster damage and reconstruction. Communities with a FEMA-approved LHMP are eligible to apply for both pre- and post-disaster mitigation grant funding.

The process began in January 2019 with an initial public and planning meeting and the establishment of a planning committee comprised of representatives from the County, incorporated communities, special districts, other key stakeholders, and the public. The plan is scheduled to be finalized and submitted to Cal OES and FEMA in October 2019.

Public Review Draft

The Public Review Draft of the LHMP Update is available online (pdf format) at: http://www.buttecounty.net/oem/mitigationplans. It is also available (in printed copy) at all Butte County locations.

Open Public Meeting

A final meeting to review and provide comments on the Butte County LHMP Update Public Review Draft is scheduled as follows:
Public Meeting: Wednesday October 16, 2019 - 5:30 - 7:00 pm
Board of Supervisors Chambers
25 County Center Drive, Oroville 95965

We encourage attendance and participation from the public and all interested stakeholders at our upcoming public meeting.

Comments on the Public Review Draft

There are several options for providing comments on the Public Review Draft:

- Email comments to Jeanine.foster@fostermorrison.com or cdunsmoor@buttecounty.net
- Drop off written comments or send by mail to: Butte County OES, Attn. Cindi Dunsmoor, 25 County Center Drive, Suite 213, Oroville 95965
- Bring comments to the meeting

If you have questions, please contact Cindi Dunsmoor at (530) 552-3333 or email at cdunsmoor@buttecounty.net.

###

Miranda Bowersox
Communications/Public Information Officer
Butte County Administration
25 County Center Drive, Oroville Ca. 95965
T. 530.552.3320 M. 530.282.2146

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A.8.9. Facebook Outreach for Final Public Meeting

Oroville News Live

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Oroville News Live
October 2 at 3:21 PM

Butte County Invites Comments on their Local Hazard Mitigation Plan
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Board of Supervisors Chambers

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-more-

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· Drop off written comments or send by mail to: Butte County OES, Attn: Cindi Dunsmoor, 25 County Center Drive, Suite 213, Oroville 95965
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If you have questions, please contact Cindi Dunsmoor at (530) 552-3333 or email at cdunsmoor@buttecounty.net

Butte County Administration Cindi Dunsmoor, Emergency Services Officer

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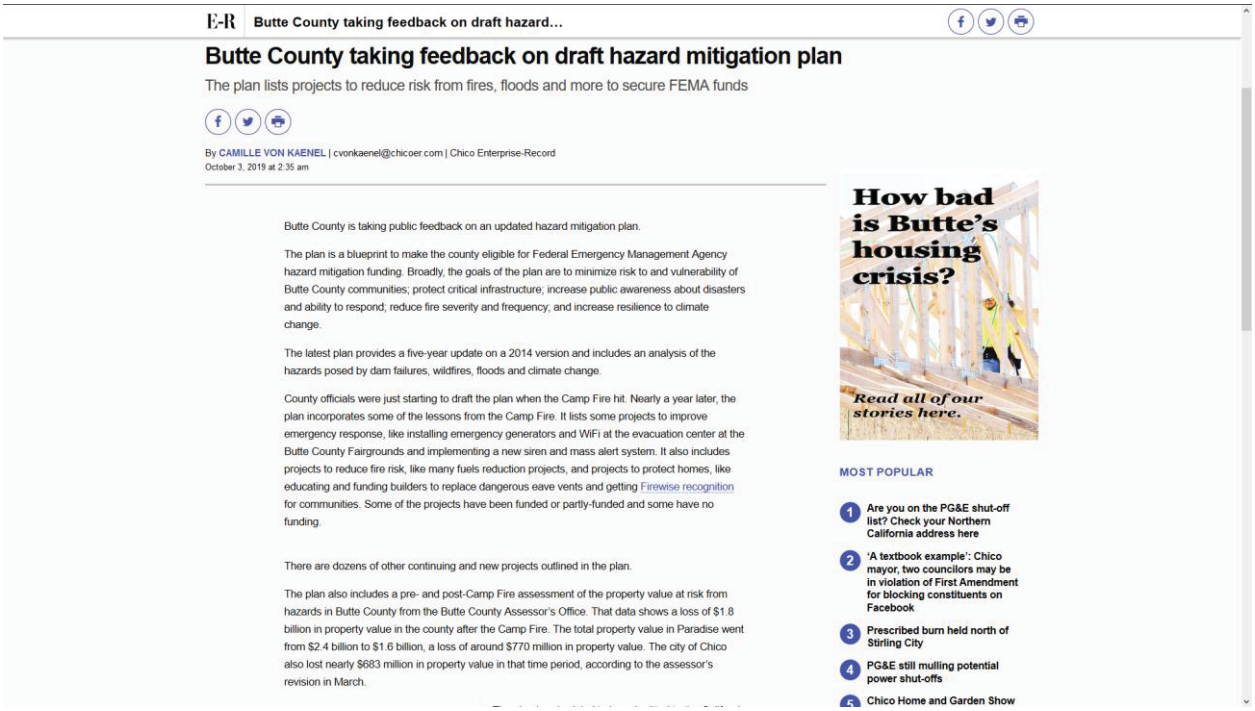
Craig Stephen Chat (25)

A.8.10. Butte County Enterprise Record Article on Public Meetings



E-R Butte County taking feedback on draft hazard...

Butte County taking feedback on draft hazard mitigation plan

The plan lists projects to reduce risk from fires, floods and more to secure FEMA funds

By CAMILLE VON KAENEL | cvonkaenel@chicoer.com | Chico Enterprise-Record
October 3, 2019 at 2:35 am

Butte County is taking public feedback on an updated hazard mitigation plan.

The plan is a blueprint to make the county eligible for Federal Emergency Management Agency hazard mitigation funding. Broadly, the goals of the plan are to minimize risk to and vulnerability of Butte County communities; protect critical infrastructure; increase public awareness about disasters and ability to respond; reduce fire severity and frequency; and increase resilience to climate change.

The latest plan provides a five-year update on a 2014 version and includes an analysis of the hazards posed by dam failures, wildfires, floods and climate change.

County officials were just starting to draft the plan when the Camp Fire hit. Nearly a year later, the plan incorporates some of the lessons from the Camp Fire. It lists some projects to improve emergency response, like installing emergency generators and WiFi at the evacuation center at the Butte County Fairgrounds and implementing a new siren and mass alert system. It also includes projects to reduce fire risk, like many fuels reduction projects, and projects to protect homes, like educating and funding builders to replace dangerous eave vents and getting Firewise recognition for communities. Some of the projects have been funded or partly-funded and some have no funding.

There are dozens of other continuing and new projects outlined in the plan.

The plan also includes a pre- and post-Camp Fire assessment of the property value at risk from hazards in Butte County from the Butte County Assessor's Office. That data shows a loss of $1.8 billion in property value in the county after the Camp Fire. The total property value in Paradise went from $2.4 billion to $1.6 billion, a loss of around $770 million in property value. The city of Chico also lost nearly $683 million in property value in that time period, according to the assessor's revision in March.

How bad is Butte's housing crisis?
Read all of our stories here.

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1. Are you on the PG&E shut-off list? Check your Northern California address here
2. 'A textbook example': Chico mayor, two councilors may be in violation of First Amendment for blocking constituents on Facebook
3. Prescribed burn held north of Stirling City
4. PG&E still mulling potential power shut-offs
5. Chico Home and Garden Show

A.8.11. Interview with Channel 12 on LHMP and Invitation for Public Meeting

A.8.12. Final Public Meeting: Final Review of Plan – Public Agenda

AGENDA
Butte County
Local Hazard Mitigation Plan (LHMP) Update
Final Public Meeting
October 16, 2019

1. Introductions
2. Status of the LHMP Update Process
3. Overview of the Butte County Risk Assessment/Mitigation Strategy
4. Public Comments/Input
5. Next Steps

SIGN-IN SHEET
Butte County
LOCAL HAZARD MITIGATION PLANNING PROJECT
Final Public Meeting
October 16, 2019

Name/Title	Email Address	Phone	Department/Organization/ Affiliation
Sandy Frizzell consultant	sandy@sdfconsults.com	530-263-4576	Butte County Fairground
KATE LEWIS BOARD MEMBER	KATE@NVADG.ORG	530 521 9314	NVADG
Tyra Rhoads General manager	rockcreekreclamation@aol.com	5305671725	Rock Creek Reclamation
Kina Souders	ksouders@buttecounty.net	530 552 3321	Butte County Admin
Meredith Cooper	meredithc@newsreview.com		CNSR
Maria Hurtado	mhurtado@buttecounty.net		Butte County Office of Emergency Management
Cindi Dunsmoor	cdunsmoor@buttecounty.net		BC OEM

A.9 Meeting Handouts

A.9.1. Kickoff Meeting Handouts

Butte County Hazard Identification and Profiles – 2019

Disaster Declarations and National Weather Service Research

Butte County – Disaster Declarations 1950-2018

Year	Disaster Name	Disaster Type	Disaster Cause	Disaster #	State Declaration #	Federal Declaration #
2018	California Wildfires	Fire	Fire	DR-4407	–	11/12/2018
2018	California Wildfires	Fire	Fire	EM-3409	–	11/9/2018
2018	Camp Fire	Fire	Fire	FM-5278	–	11/8/2018
2017	California Wildfires	Fire	Fire	DR-4344	10/9/2017	10/10/2017
2017	Laporte Fire	Fire	Fire	FM-5218	–	10/9/2017
2017	Cascade Fire	Fire	Fire	FM-5216	–	10/09/2017
2017	Ponderosa Fire	Fire	Fire	FP 2017-10	9/1/2017	–
2017	Wall Fire	Fire	Fire	FM-5189	7/9/2017	7/9/2017
2017	California Severe Winter Storms, Flooding, Mudslides	Flood	Storms	DR-4308	3/7/2017	4/1/2017
2017	California Severe Winter Storms, Flooding, and Mudslides	Flood	Storms	DR-4301	–	2/14/2017
2017	California Potential Failure of the Emergency Spillway at Lake Oroville Dam	Flood	Storms	EM-3381	–	2/14/2017
2014	California Drought	Drought	Drought	GP 2014-13	1/17/2014	–
2008	–	Agricultural	Drought	S2708	–	9/16/2008
2008	–	Agricultural	Freezing Temperatures	S3109	–	6/30/2008
2008	Mid-year fires	Fire	Fire	EM-3287	6/28/2008	–

Year	Disaster Name	Disaster Type	Disaster Cause	Disaster #	State Declaration #	Federal Declaration #
2008	Humboldt Fire	Fire	Fire	FM 2771	6/11/2008	–
2008	Ophir Fire	Fire	Fire	FM 2770	–	6/10/2008
2008	2008 January Storms	Flood	Storms	GP 2008-01	1/15/2008	–
2005/ 2006	2005/06 Winter Storms	Flood	Storms	DR-1628	–	2/3/2006
2005	Hurricane Katrina Evacuations	Economic	Hurricane	EM-3248 2005	–	9/13/2005
2004	Oregon Fire	Fire	Fire	FM-2545	–	8/11/2004
2001	Energy Emergency	Economic	Greed	GP-2001	1/1/2001	–
1999	1999 August Fires	Fire	Fire	EM-3140	8/26/1999	9/1/1999
1998	1998 El Nino Floods	Flood	Storms	DR-1203	Proclaimed	2/19/1998
1997	1997 January Floods	Flood	Storms	DR-1155	1/2/97-1/31/97	1/4/1997
1995	1995 Severe Winter Storms	Flood	Storms	DR-1046	1/6/95-3/14/95	3/12/1995
1995	1995 Severe Winter Storms	Flood	Storms	DR-1044	1/6/95-3/14/95	1/13/1995
1990	1990 Freeze	Freeze	Freeze	DR-894	12/19/1990 - 1/18/1991	2/11/1991
1990	1990 Severe Storms	Flood	Storms	GP 989-06	2/22/1990	–
1987	1987 Wildland Fires	Fire	Fire	GP	9/10/87	–
1986	1986 Storms	Flood	Storms	DR-758	2/18-86-3/12/86	2/18/1986
1982	Winter Storms	Flood	Flood	DR-677	12/8/82-3/21/83	2/9/1983
1976	1976 Drought	Drought	-	EM-3023	2/9/76, 2/13,76, 2/24/76, 3/26/76, 7/6/76	1/20/1977
1975	Butte Earthquake	Earthquake	Earthquake	DC 75-03	–	8/1/1975
1973	1973 Freeze	Freeze	Freeze	-	2/28/1973	–
1970	1970 Northern California Flooding	Flood	Flood	DR-283	1/27/1970, 2/3/1970, 2/10/1970, 3/2/1970	2/16/1970

Year	Disaster Name	Disaster Type	Disaster Cause	Disaster #	State Declaration #	Federal Declaration #
1969	1969 Storms	Flood	Storms	DR-253	1/23/69-3/12/69	1/26/1969
1964	1964 Late Winter Storms	Flood	Storms	DR-183	–	12/24/1964
1963	1963 Floods	Flood	Storms	–	2/14/1964	–
1962	1962 Floods and Rain	Flood	Storms	DR-138	10/17/62, 10/25/62, 10/30/62, & 11/4/62	10/24/1962
1961	1961 Widespread Fires	Fire	Fire	-	9/18/1961	–
1958	1958 April Storms and Floods	Flood	Storms	DR-82	4/5/1958	4/4/1958
1958	1958 February Storms and Floods	Flood	Storms	CDO 58-03	2/26/1958	–
1955	1955 Floods	Flood	Flood	DR-47	12/22/1955	12/23/1955
1950	1950 Floods	Flood	Flood	OCD 50-01	11/21/1950	–

Source: FEMA, Cal OES

Butte County Disaster Declaration Summary Table 1950-2018

Disaster Type	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Drought	2	1976, 2008	2	1976, 2014
Earthquake	1	1975	0	
Economic	0		1	2001
Flood	16	1955, 1958, 1962, 1964, 1969, 1970, 1982, 1986, 1995 (twice), 1997, 1998, 2005, 2017 (three times)	17	1950,1955, 1958 (twice), 1962, 1963, 1969, 1970, 1982, 1986, 1990, 1995 (twice), 1997, 1998, 2008, 2017
Freeze	2	1990, 2008	2	1973, 1990
Hurricane	1	2005	0	
Wildfire	10	1999, 2004, 2008, 2017 (four times), 2018 (three times)	8	1961, 1987, 1999, 2008 (twice), 2017 (three times)
Totals	**32**	–	**30**	**–**

Source: FEMA, Cal OES

*NCDC Severe Weather Events for Butte County 1950-10/31/2018**

Event Type	Number of Events	Deaths	Deaths (indirect	Injuries	Injuries (indirect)	Property Damage	Crop Damage
Astronomical Low Tide**	1	0	0	0	0	$0	$0
Blizzard	1	0	0	0	0	$0	$0
Cold/Wind Chill	2	0	0	0	0	$2,400,000	$0
Debris Flow	2	0	0	0	0	$4,308,000	$0
Dense Fog	1	0	0	0	0	$0	$0
Drought	12	0	0	0	0	$0	$0
Excessive Heat	2	2	0	2	0	$0	$0
Flash Flood	6	0	0	0	0	$700,000	$0
Flood	25	0	0	0	0	$551,645,000	$0
Frost/Freeze	5	0	0	0	0	$0	$0
Hail	9	0	0	0	0	$0	$0
Heat	12	1	0	0	0	$0	$0
Heavy Rain	19	0	0	0	0	$6,000	$0
Heavy Snow	25	1	0	0	0	$0	$0
High Surf**	1	0	0	0	0	$0	$0
High Winds	34	3	0	2	0	$11,425,000	$30,000,000
Lightning	3	0	0	0	0	$135,000	$0
Strong Wind	2	0	1	0	0	$300,000	$0
Thunderstorm Wind	7	0	0	0	0	$1,020,000	$0
Tornado	16	0	0	6	0	$8,230,500	$50
Wildfire	19	0	5	7	89	$2,380,000	$0
Winter Storm	134	0	0	0	0	$150,000	$0
Winter Weather	12	0	0	0	0	$0	$0
Total	**350**	**7**	**6**	**17**	**89**	**$582,699,500**	**$30,000,050**

Source: NCDC

*Note: Losses reflect totals for all impacted areas

**Due to the regional nature of reporting certain hazard events, these hazards are included in the NCDC database for Butte County

Butte County Hazard Identification from 2014

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/ Severity	Significance
Dam Failure	Significant	Unlikely	Critical	Medium
Drought & Water shortage	Extensive	Occasional	Critical	Medium
Earthquakes	Extensive	Occasional	Critical	Medium
Earth Movements: Landslide	Limited	Likely	Negligible	Low
Earth Movements: Erosion	Limited	Highly Likely	Significant	Medium
Floods: 100/200/500 year	Significant	Occasional	Critical	High
Floods: Localized Stormwater	Extensive	Highly Likely	Critical	Medium
Hazardous Materials Incidents: Transportation	Significant	Likely	Critical	Medium
Invasive Species: Pests/Plants	Significant	Highly Likely	Limited	Low
Levee Failure	Significant	Occasional	Limited	High
Marine Invasive Species	Limited	Occasional	Limited	Low
Severe Weather: Extreme Heat	Significant	Highly Likely	Critical	Low
Severe Weather: Freeze and Winter Storm	Significant	Highly Likely	Critical	Medium
Severe Weather: Heavy rain, hailstorm, lightning	Significant	Highly Likely	Critical	Medium
Severe Weather: Tornado	Limited	Likely	Limited	Low
Severe Weather: Windstorms	Extensive	Highly Likely	Critical	Medium
Volcanoes	Significant	Unlikely	Critical	Low
Wildfires	Significant	Highly Likely	Critical	High

Geographic Extent
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Likelihood of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year, or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.
Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.
Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.

Magnitude/Severity
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Butte County Hazard Identification 2019

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/ Severity	Significance	Climate Change Influence
Climate Change					–
Dam Failure					Medium
Drought & Water shortage					High
Earthquake					Low
Floods: 100/200/500 year					Medium
Floods: Localized Stormwater					Medium
Hazardous Materials Transportation					Low
Invasive Species: Pests/Plants					Low
Landslide, Mudslide, and Debris Flow					Medium
Levee Failure					Medium
Marine Invasive Species					Low
Severe Weather: Extreme Heat					High
Severe Weather: Freeze and Winter Storm					Medium
Severe Weather: Heavy Rain and Storms (Hail, Lightning, Wind)					Medium
Severe Weather: Wind and Tornado					Low
Stream Bank Erosion					Low
Volcano					Low
Wildfire					High

Geographic Extent
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Likelihood of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year, or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.
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Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
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Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Climate Change Influence
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Hazard Identification Table - Jurisdiction:_____

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/ Severity	Significance	Climate Change Influence
Climate Change					
Dam Failure					
Drought & Water shortage					
Earthquake					
Floods: 100/200/500 year					
Floods: Localized Stormwater					
Hazardous Materials Transportation					
Invasive Species: Pests/Plants					
Landslide, Mudslide, and Debris Flow					
Levee Failure					
Marine Invasive Species					
Severe Weather: Extreme Heat					
Severe Weather: Freeze and Winter Storm					
Severe Weather: Heavy Rain and Storms (Hail, Lightning, Wind)					
Severe Weather: Wind and Tornado					
Stream Bank Erosion					
Volcano					
Wildfire					

Geographic Extent
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Likelihood of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year, or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.
Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.
Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.

Magnitude/Severity
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Climate Change Influence
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Butte County LHMP Update: 2019 Hazards

- Climate Change
- Dam Failure
- Drought and Water Shortage
- Earthquake
- Flood: (100/200/500 year)
- Flood: Localized/Stormwater
- Hazardous Materials Transportation
- Invasive Species: Pests/Plants
- Landslide Mudslide, and Debris Flow
- Levee Failure
- Invasive Species: Aquatic
- Severe Weather: Extreme Heat
- Severe Weather: Freeze and Winter Storms
- Severe Weather: Heavy Rains and Storms (Hail, Lightning)
- Severe Weather: Wind and Tornadoes
- Streambank Erosion
- Volcano
- Wildfire

Butte County Historic Hazard Worksheet (Past Occurrences)

Please fill out one sheet for each significant hazard event with as much detail as possible. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Opinion on likelihood of occurring again	
Source of information	
Comments	

	Please return worksheets by mail, email, or fax to: Jeanine Foster, Foster Morrison 5628 West Long Place Littleton, CO 80123 fax: (720) 893-0863 email: jeanine.foster@fostermorrison.com
Prepared by:	
Phone:	
Email:	
Date:	

Butte County
2019 Local Hazard Mitigation Plan Update
County and Participating Jurisdiction: Vulnerability & Capability Worksheets

Risk and Vulnerability Questions

Localized/Stormwater Flooding

1. Please describe the localized/stormwater flood issue specific to your jurisdiction in paragraph form. In addition, please complete a table similar to the below example detailing types and location of localized/stormwater flooding problems. If available, also attach a map of problem areas.

Text Description:

Table 3 Localized Flooding Areas

Road Name	Flooding	Pavement Deterioration	Washouts	High Water/ Creek Crossing	Landslides/ Mudslides	Debris	Downed Trees

Earthquake Vulnerability

1. Number of unreinforced masonry buildings. If available, please provide an inventory of URM buildings specific to your jurisdiction. Include any tables and/or maps. Is this a layer available in GIS?

Special Populations

1. Describe any hazard-related concerns or issues regarding the vulnerability of special needs populations, such as the elderly, disabled, low-income, or migrant farm workers.

Development Trends

1. Describe development trends and expected growth areas and how they relate to hazard areas and vulnerability concerns/issues. Please provide zoning maps and maps and tables detailing areas targeted for future development within your jurisdiction.

CAPABILITY ASSESSMENT

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning and Regulatory

The following planning and land management tools are typically used by local jurisdictions to implement hazard mitigation activities. Please indicate which of the following your jurisdiction has in place. If your jurisdiction does not have this capability or authority, please indicate in the comments column if a higher level of government has the authority.

Plans	**Y/N** **Year**	**Does the plan/program address hazards?** **Does the plan identify projects to include in the mitigation strategy?** **Can the plan be used to implement mitigation actions?**
General Plan		
Capital Improvements Plan		
Economic Development Plan		
Local Emergency Operations Plan		
Continuity of Operations Plan		
Transportation Plan		
Stormwater Management Plan/Program		
Engineering Studies for Streams		
Community Wildfire Protection Plan		
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)		
Building Code, Permitting, and Inspections	**Y/N**	**Are codes adequately enforced?**
Building Code		
Building Code Effectiveness Grading Schedule (BCEGS) Score		
Fire department ISO rating:		
Site plan review requirements		
Land Use Planning and Ordinances	**Y/N**	**Is the ordinance an effective measure for reducing hazard impacts?** **Is the ordinance adequately administered and enforced?**
Zoning ordinance		
Subdivision ordinance		
Floodplain ordinance		

Natural hazard specific ordinance (stormwater, steep slope, wildfire)	
Flood insurance rate maps	
Elevation Certificates	
Acquisition of land for open space and public recreation uses	
Erosion or sediment control program	
Other	
How can these capabilities be expanded and improved to reduce risk?	

Administrative/Technical

Identify the technical and personnel resources responsible for activities related to hazard mitigation/loss prevention within your jurisdiction. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, please indicate so in the comments column.

Administration	**Y/N**	**Describe capability Is coordination effective?**
Planning Commission		
Mitigation Planning Committee		
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)		
Mutual aid agreements		
Other		
Staff	**Y/N FT/PT**	**Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?**
Chief Building Official		
Floodplain Administrator		
Emergency Manager		
Community Planner		
Civil Engineer		
GIS Coordinator		
Other		
Technical	**Y/N**	**Describe capability Has capability been used to assess/mitigate risk in the past?**

Warning systems/services (Reverse 911, outdoor warning signals)
Hazard data and information
Grant writing
Hazus analysis
Other
How can these capabilities be expanded and improved to reduce risk?

Fiscal

Identify whether your jurisdiction has access to or is eligible to use the following financial resources for hazard mitigation

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding		
Authority to levy taxes for specific purposes		
Fees for water, sewer, gas, or electric services		
Impact fees for new development		
Storm water utility fee		
Incur debt through general obligation bonds and/or special tax bonds		
Incur debt through private activities		
Community Development Block Grant		
Other federal funding programs		
State funding programs		
Other		
How can these capabilities be expanded and improved to reduce risk?		

Education and Outreach

Identify education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information.

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.		
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)		
Natural disaster or safety related school programs		
StormReady certification		
Firewise Communities certification		
Public-private partnership initiatives addressing disaster-related issues		
Other		
How can these capabilities be expanded and improved to reduce risk?		

National Flood Insurance Program (NFIP) Worksheet

Use this worksheet to collect information on your community's participation in and continued compliance with the NFIP, as well as identify areas for improvement that could be potential mitigation actions.

NFIP Topic	Comments
Insurance Summary	
How many NFIP policies are in the community? What is the total premium and coverage?	FM to complete
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FM to complete
How many structures are exposed to flood risk within the community?	FM to complete
Describe any areas of flood risk with limited NFIP policy coverage	
Staff Resources	
Is the Community Floodplain Administrator or NFIP Coordinator certified?	
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	
What are the barriers to running an effective NFIP program in the community, if any?	
Compliance History	
Is the community in good standing with the NFIP?	
Are there any outstanding compliance issues (i.e., current violations)?	
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	
Is a CAV or CAC scheduled or needed?	
Regulation	
When did the community enter the NFIP?	FM to complete
Are the FIRMs digital or paper?	FM to complete
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	
Provide an explanation of the permitting process.	
Community Rating System	
Does the community participate in CRS?	
What is the community's CRS Class Ranking?	
What categories and activities provide CRS points and how can the class be improved?	
Does the plan include CRS planning requirements?	

Prepared by:	Date	Email	Phone

HISTORIC HAZARD EVENTS WORKSHEET

Please fill out one sheet for each significant hazard event with as much detail as possible. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Opinion on likelihood of occurring again	
Source of information	
Comments	

	Please return worksheets by mail, email, or fax to: Jeanine Foster, Foster Morrison 5628 West Long Place Littleton, CO 80123 fax: (720) 893-0863 email: jeanine.foster@fostermorrison.com
Prepared by:	
Phone:	
Email:	
Date:	

A.9.2. Risk Assessment Meeting Handouts

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/ Severity	Significance	Climate Change Influence
Climate Change	Extensive	Likely	Limited	Medium	–
Dam Failure	Extensive	Occasional	Catastrophic	High	Medium
Drought & Water shortage	Extensive	Likely	Critical	Medium	High
Earthquake: Major	Extensive	Unlikely	Catastrophic	Medium	Low
Floods: 100/200/500 year	Significant	Likely	Critical	High	Medium
Floods: Localized Stormwater	Significant	Highly Likely	Limited	Medium	Medium
Hazardous Materials Transportation	Significant	Likely	Limited	Medium	Low
Invasive Species: Aquatic	Limited	Likely	Limited	Medium	Low
Invasive Species: Pests/Plants	Extensive	Highly Likely	Limited	Medium	Low
Landslide, Mudslide, and Debris Flow	Significant	Highly Likely	Critical	Medium	Medium
Levee Failure	Significant	Occasional	Critical	High	Medium
Severe Weather: Extreme Heat	Extensive	Highly Likely	Limited	Medium	High
Severe Weather: Freeze and Winter Storm	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: Heavy Rain and Storms (Hail, Lightning)	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: Wind and Tornado	Extensive	Highly Likely/Likely	Critical	Medium	Low
Stream Bank Erosion	Significant	Highly Likely	Limited	Medium	Low
Volcano	Extensive	Unlikely	Negligible	Low	Low
Wildfire	Extensive	Highly Likely	Catastrophic	High	High

Geographic Extent
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Likelihood of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year, or happens every year.
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Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Climate Change Influence
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Risk Assessment Methodology

Calculating Likelihood of Future Occurrence

The frequency of past events is used in this section to gauge the likelihood of future occurrences. Based on historical data, the likelihood of future occurrence is categorized into one of the following classifications:

- **Highly Likely**: Near 100% chance of occurrence in next year, or happens every year.
- **Likely**: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.
- **Occasional**: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.
- **Unlikely**: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.

Calculating Vulnerability

Vulnerability is measured in general, qualitative terms, and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential:

- **Extremely Low**: The occurrence and potential cost of damage to life and property is very minimal to non-existent.
- **Low**: Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**: Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**: Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have already occurred in the past.
- **Extremely High**: Very widespread and catastrophic impact.

Defining Significance (Priority) of a Hazard

Defining the significance or priority of a hazard to a community is based on a subjective analysis of several factors. This analysis is used to focus and prioritize hazards and associated mitigation measures for the plan. These factors include the following:

- **Past Occurrences**: Frequency, extent, and magnitude of historic hazard events.
- **Likelihood of Future Occurrences**: Based on past hazard events.
- **Ability to Reduce Losses through Implementation of Mitigation Measures**: This looks at both the ability to mitigate the risk of future occurrences as well as the ability to mitigate the vulnerability of a community to a given hazard event.

Risk Assessment Summary: Butte County Planning Area

Climate Change

- The 2018 State of California Multi-Hazard Mitigation Plan stated that climate change is already affecting California. Sea levels have risen by as much as seven inches along the California coast over the last century, increasing erosion and pressure on the state's infrastructure, water supplies, and natural resources. The State has also seen increased average temperatures, more extreme hot days, fewer cold nights, a lengthening of the growing season, shifts in the water cycle with less winter precipitation falling as snow, and both snowmelt and rainwater running off sooner in the year. Climate Change has the potential to alter the nature and frequency of most hazards.
- Butte County has a great CAP/Climate Vulnerability Assessment that we are pulling from.
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard

Dam failure

- According to data provided by Cal OES and National Performance of Dam's data, there are 35 dams in Butte County constructed for flood control, storage, electrical generation, and recreational purposes. Of these, 16 are high hazard, 5 are significant hazard, 4 are low hazard, and 10 are not rated.
- In addition to these dams, there are other dams outside the County with the potential to affect people and property in Butte County. These dams are: Shasta (Shasta County); Little Grass Valley Lake (Plumas County); and Lake Almanor (Plumas County).
- According to the General Plan Safety Element, Most substantial among is the Dams of concern in the County is the Oroville Dam, located northeast of the City of Oroville, which has a storage capacity of over 3.5 million acre-feet. There are smaller dams at Lake Wyandotte, Lake Madrone, Lost Creek, Round Valley, Magalia Reservoir, and elsewhere. The failure of a dam may affect the dam site, downstream areas, floodwater routing, or all three.
- The National Performance of Dams data shows 5 dam incidents for Butte County since 1932: 1932, 1938, 1965, 1997, and 2017.
- Likelihood of Future Occurrence: Occasional
- Vulnerability: Extremely High
- Priority Hazard

Drought and Water Shortage

- Historical drought data for the Butte County Planning Area and region indicate there have been 5 significant droughts in the last 84 years.
- Since 2012, snowpack levels in California had dropped dramatically. 2015 estimates place snowpack at 5 percent of normal levels. However, snowpack levels increased in 2016 and in 2017 snowpack levels were the highest they've been in 22 years. But then back down again in early 2018, only to be back up again in late 2018/2019.
- 3 disaster declarations (1977, 2008, 2014) for Butte County since 1950. There have been 12 NCDC drought events in Butte County, all related to events in the 2015 to 2016 drought.
- According to the General Plan, approximately 75% of residential water supply is from Groundwater sources? Groundwater is more predominant in the western portion of the County as compared to the eastern portion. TRUE?

- HMPC – CAN YOU PROVIDE DAMAGES OR RESTRICTIONS THAT HAVE OCCURRED IN THE COUNTY RECENTLY DUE TO THE MOST RECENT DROUGHT. WHAT HAS BEEN IMPACTED THE MOST? CONFIRM THE PRIMARY SOURCE OF WATER AND HOW HAS WATER SUPPLY BEEN AFFECTED IN THE COUNTY?
- Likelihood of Future Occurrence: Drought - Likely/Water supply - Occasional
- Vulnerability: Medium
- Priority Hazard

Earthquake

- Within Butte County, there is one active fault – Cleveland Hills Fault, and one potentially active fault – Big Bend fault, with many active faults located outside the County. The County could experience considerable ground shaking generated by faults located both inside and outside Butte County.
- The USGS National Seismic Hazard Maps provides acceleration and probabilities for various time periods. This data indicates that the expected severity of earthquakes in the region is mostly low to moderate.
- There has been one disaster declaration for earthquake in the County - the 1975 Oroville earthquake. This registered as a 5.8 magnitude. Property damage estimated at $2.5M.
- In addition, the County has felt ground shaking from earthquakes with epicenters located elsewhere. HMPC – WHAT WERE THERE ISSUES IN THE COUNTY FROM HISTORICAL EARTHQUAKES? HAVE ANY STUDIES BEEN DONE ON EARTHQUAKE AND SECONDARY IMPACTS SUCH AS TO DAMS AND LEVEES?
- Likelihood of Future Occurrence: Unlikely – large, damaging earthquake; Occasional – minor earthquake
- Vulnerability: High
- Priority Hazard

Earthquake Liquefaction

- Mapped areas of liquefaction potential are mapped in the County, with areas in the far western portion of the County in high liquefaction potential areas, moving to moderate in the middle portion of the County to low in the far eastern portion.
- HMPC – HAVE THERE BEEN ANY INCIDENTS OF LIQUEFACTION IN THE COUNTY DUE TO PAST EARTHQUAKE ACTIVITY? HAVE ANY STUDIES BEEN DONE ON LIQUEFACTION AND SECONDARY IMPACTS SUCH AS TO LEVEES?
- Likelihood of Future Occurrence: Unlikely
- Vulnerability: Medium
- Priority Hazard?

Flood Hazards

100/200/500 year

- Historically, portions of Butte County have always been at risk to flooding because of its annual percentage of rainfall in the winter and the number of watercourses that traverse the County. Flooding in Butte County results from prolonged heavy rainfall over tributary areas during the period from November through March.

- 17 state and 16 federal declarations from 1950-present were for heavy rains and flooding. Flooding is an ongoing issue for the planning area.
- HMPC - REVIEW RISK ASSESSMENT AND ADD INFORMATION ON MAJOR FLOOD EVENTS. NEED SUMMARY OF IMPACTS FROM 2017 AND 2018 FLOOD EVENTS.
- Likelihood of Future Occurrence: 100-Occasional; 200 – Unlikely; 500-Unlikely
- Vulnerability: High
- Priority Hazard

Localized/Stormwater flooding

- Significant localized flood history in the County – occurs annually
- CAN THE HMPC PROVIDE DETAILS ON THESE AREAS? PICTURES/DESCRIPTIONS - NEED SPECIFIC TO EACH JURISDICTION
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium
- Priority Hazard

Invasive Species: Aquatic

- Zebra and Quagga Mussels, invasive fish species, and aquatic weeds such as hydrilla, water hyacinth, Arundo, loosestrife, Sesbania, South American Spongeplant, and others are the primary issues.
- There have been no disaster declarations associated with invasive species in Butte County. The NCDC contains no records of invasive species in the County. Neither of these databases track these issues. 14 USDA declarations since 2012,:10 for drought, 2 for freeze, 2 for excessive rain and severe weather.
- CAN THE COUNTY PROVIDE INFORMATION ON PAST OCCURRENCES OR SPECIFIC CONCERNS/ISSUES SINCE THE LAST PLAN? HAVE QUAGGA MUSSELS BEEN FOUND IN THE COUNTY? NEAREST WATER BODY?
- Likelihood of Future Occurrence: Likely - Highly Likely
- Vulnerability: Medium
- Priority Hazard?

Invasive Species: Pests/Plants

- Numerous invasive species are common in Butte County: Gypsy Moth, Japanese Beetle, Light Brown Apple Moth, Mediterranean Fruit Fly, and Red Imported Fire Ant.
- There have been no disaster declarations associated with these invasive species incidents in Butte County. The NCDC contains no records of invasive species incidents in the County.
- CAN THE COUNTY PROVIDE INFORMATION ON PAST OCCURRENCES OR SPECIFIC CONCERNS/ISSUES?
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium
- Priority Hazard?

Hazardous Materials Transportation

- Several major transportation routes go through Butte County, with deliveries also occurring on many local routes. Highway routes: Highways 32, 45, 70, 99, 149, 162, 191 and 2 Union Pacific Railroad lines.

- There have been no disaster declarations associated with hazardous materials incidents in Butte County. The NCDC contains no records of hazardous materials incidents in the County. US DOT identifies 22 past spills since 1970.
- CAN THE COUNTY PROVIDE INFORMATION ON PAST INCIDENTS OR SPECIFIC CONCERNS/ISSUES?
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard?

Landslides, Mudslides, and Debris Flows

- There have been no disaster declarations associated with landslides in Butte County. The NCDC contains no records of landslides in the County.
- Landslide mapping indicate that portions of the eastern County are at moderate to high risk for landslides.
- WHAT SPECIFIC AREAS ARE AT RISK TO LANDSLIDES?
- CAN THE COUNTY PROVIDE INFORMATION ON PAST LANDSLIDE EVENTS?
- Need to add maps and analysis on post fire landslide and debris flow prone areas.
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard?

Levee Failure

- Agricultural and flood control levees have been constructed in many areas of Butte, mostly on the western side of the County.
- CAN WE GET AN UPDATED LIST OF LEVEES SEGMENTS AND THE LEVELS OF PROTECTION THEY PROVIDE? CERTIFIED VS. NON-CERTIFIED LEVEES?
- IS THERE A LEVEE INVENTORY/STATUS MAP? CAN WE ALSO GET THE GENERAL PLAN AREAS PROTECTED BY LEVEE MAP?
- No disaster declarations associated with levee failures; the NCDC does not identify any levee failure events.
- ANY PAST LEVEE FAILURE EVENTS TO NOTE?
- Likelihood of Future Occurrence: Occasional?
- Vulnerability: High
- Priority Hazard

Severe weather

Extreme Heat

- Annual occurrences of hot temperatures. The highest recorded daily extreme was 115°F in June 1962 and July 1972 in western Butte. In a typical year, maximum temperatures exceed 90°F on 93.3 days in western Butte. The highest recorded daily extreme was 113°F in August 1933 eastern Butte. In a typical year, maximum temperatures exceed 90°F on 51.2 days.
- 14 extreme heat event (NCDC) since 1993; No state or federal disaster declarations
- PLEASE PROVIDE DETAILS ON EXTREME HEAT EVENTS IN THE COUNTY.
- Likelihood of Future Occurrence: Highly Likely

- Vulnerability: Medium
- Priority Hazard?

Freeze and Winter Storms

- Annual occurrences of cold temperatures. The lowest recorded daily extreme was 12°F on December 22, 1990 in western Butte. In a typical year, minimum temperatures fall below 32°F on 21.8 days in western Butte, with no days falling below 0°. The lowest recorded daily extreme was -2°F on January 20, 1937. In a typical year, minimum temperatures fall below 32°F on 74.9 days with no days falling below 0°F.
- The County has had 2 past federal and 2 past state disaster declarations for extreme cold and freeze. NCDC identified 179 extreme cold or freeze events as well as snow and winter storms. Events.
- PLEASE PROVIDE DETAILS ON EXTREME COLD AND FREEZE EVENTS IN THE COUNTY. WHAT ARE THE MOST SIGNIFICANT ISSUES/CONCERNS?
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium
- Priority Hazard

Heavy rains and storms (Hail, Lightning)

- Significant County history: annual occurrences
- The NCDC data recorded 9 hail, 19 heavy rain, and 3 lightning events for Butte County since 1950.
- There have been 16 federal and 17 state declarations since 1950 for flooding, including heavy rains and storms.
- CAN THE HMPC PROVIDE DETAILS ON HEAVY RAIN AND STORM EVENTS IN THE COUNTY. JANUARY 2017/ RECENT 2018 STORMS – PA SHEEETS?
- Severe storms/heavy rains are the primary cause of most major flooding
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: High
- Priority Hazard

High Winds and Tornadoes

- Significant County history: annual occurrences
- The NCDC data recorded 43 high wind and 16 tornado incidents for Butte County since 1950. Most tornado events were EF0 and EF1 intensities, with one EF2 noted.
- CAN THE HMPC PROVIDE INFORMATION ON PAST HIGH WINDS AND TORNADO EVENTS AND DAMAGES? WHAT ARE THE PRIMARY CONCERNS TO THE COUNTY?
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: High
- Priority Hazard

Stream Bank Erosion

- Stream bank erosion processes are driven by two major components: stream bank characteristics (erodibility) and hydraulic/gravitational forces. Stream bank erosion occurs on rivers, streams, and other moving waterways in the County

- WHAT ARE THE PRIMARY AREAS/CONCERNS/IMPACTS ASSOCIATED WITH STREAM BANK EROSION IN THE COUNTY? DOES THE COUNTY/CITIES HAVE MAPS/DATA OF PROBLEM AREAS? DO WAVE ACTIONS DURING HIGH WINDS CONTRIBUTE SIGNIFICANTLY TO STREAM BANK EORSION.
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard?

Volcano

- Of the approximately 20 volcanoes in the State, only a few are active and pose a threat. Of these, Lassen Peak is the closest to Butte County. The Long Valley area is considered to be an active volcanic region of California and includes features such as the Mono-Inyo Craters, Long Valley Caldera, and numerous active and potential faults.
- The most recent eruptive activity occurred at Lassen Peak in 1914-1917. This eruptive episode began on May 30, 1914, when a small phreatic eruption occurred at a new vent near the summit of the peak. More than 150 explosions of various sizes occurred during the following year. The fall of fine ash was reported as far away as Elko Nevada, more than 300 miles east of Lassen Peak. Intermittent eruptions of variable intensity continued until about the middle of 1917
- PAST OCCURRENCES? ANY MAJOR ISSUES?
- Likelihood of Future Occurrence: Unlikely
- Vulnerability: Low
- Non-Priority Hazard

Wildfire

- Wildfires occur on an annual basis in the Butte County Planning Area.
- Any ignition has the potential to become an out of control wildfire. Wildfire is one of the most significant hazard the County faces.
- 10 federal and 8 state disaster declarations for Wildfire since 1950; 19 NCDC wildfire events since. The Camp Fire the most costly wildfire in California history.
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Extremely High
- Priority Hazard

Data Needs

Review of Key Items to date:

- Hazard-specific data
  - ✓ Hazard ID tables
  - ✓ Historic Hazard Worksheets or list of past hazard occurrences and impact to jurisdiction
- Risk Assessment Worksheets

Other Data Items:

General:

- Logos for each participating jurisdiction
- Historic Hazard Data and Key areas affected by Jurisdiction (items identified in today's meeting)
- EOC Activations
- PA Summaries
- Photos, Photos, Photos
- Critical Facilities – Updated, post fire layer to reflect changes in Paradise?
- Future Development Areas by Jurisdiction
- Levee Inventory/Status Map & Data

Flood:

- RL data CD – includes mitigated and unmitigated

- 200-year flood mapping?

Levee:

- Levee status table and map – which levees provide what level of protection?
- Areas protected by Levee – GIS. Get levee protected boundaries area from GP map

Wildfire:

- What maps and analysis has the County performed on the Camp Fire?
- What post fire GIS data does the County have?

Earthquake:

- URM inventory – and status of mitigation

City/District specific:

- Old participating jurisdictions – need past occurrences/hazard history since 2013
- New participating jurisdictions –significant hazard occurrences - back 50 years or so

A.9.3. Mitigation Strategy Meeting Handouts

Handouts specific to the Mitigation Strategy Meeting can be found in Appendix C.

A.9.4. Final Meeting Handouts

Handouts specific to the Final Meeting can be found in Section 2.2 of the Base Plan Update. That section provides a summary by hazard of significant changes in current conditions, Planning Area vulnerability, and any resulting modifications to the community's mitigation program priorities since the 2014 LHMP:

A.9.5. Early Public Meeting Handouts

Butte County LHMP Update: 2019 Hazards

- Climate Change
- Dam Failure
- Drought and Water Shortage
- Earthquake
- Flood: (100/200/500 year)
- Flood: Localized/Stormwater
- Hazardous Materials Transportation
- Invasive Species: Aquatic
- Invasive Species: Pests/Plants
- Landslide Mudslide, and Debris Flow
- Levee Failure
- Severe Weather: Extreme Heat
- Severe Weather: Freeze and Winter Storms
- Severe Weather: Heavy Rains and Storms (Hail, Lightning)
- Severe Weather: Wind and Tornadoes
- Streambank Erosion
- Volcano
- Wildfire

Butte County Historic Hazard Worksheet (Past Occurrences)

Please fill out one sheet for each significant hazard event with as much detail as possible. Attach supporting documentation, photocopies of newspaper articles, or other original sources.

Type of event	
Nature and magnitude of event	
Location	
Date of event	
Injuries	
Deaths	
Property damage	
Infrastructure damage	
Crop damage	
Business/economic impacts	
Road/school/other closures	
Other damage	
Insured losses	
Federal/state disaster relief funding	
Opinion on likelihood of occurring again	
Source of information	
Comments	

	Please return worksheets by mail, email, or fax to: Jeanine Foster, Foster Morrison 5628 West Long Place Littleton, CO 80123 fax: (720) 893-0863 email: jeanine.foster@fostermorrison.com
Prepared by:	
Phone:	
Email:	
Date:	

A.9.6. Final Public Meeting Handouts

BUTTE COUNTY LHMP UPDATE 2019
FINAL PUBLIC MEETING
October 16, 2019

Hazards List

- Climate Change
- Dam Failure
- Drought and Water Shortage
- Earthquake & Liquefaction
- Flood: 100/500–year
- Flood: Localized/Stormwater
- Hazardous Materials Transportation
- Invasive Species: Aquatic
- Invasive Species: Pests/Plants
- Landslide Mudslide, and Debris Flows
- Levee Failure
- Severe Weather: Extreme Cold and Freeze
- Severe Weather: Extreme Heat
- Severe Weather: Heavy Rains and Storms (winds, hail, lightning)
- Severe Weather: High Winds and Tornadoes
- Streambank Erosion
- Volcano
- Wildfire

Participating Jurisdictions

- Butte County*
- City of Biggs*
- City of Chico*
- City of Gridley*
- City of Oroville*
- Town of Paradise*
- Paradise Irrigation District*
- Thermalito Water and Sewer District*
- Durham Irrigation District
- North Yuba Water District
- Feather River Recreation and Park District
- Butte County Fire Safe Council
- Lake Oroville Area Public Utility District
- Paradise Recreation and Park District
- South Feather Power and Water Agency
- Butte County Board of Education

*2014 LHMP Participants

Mitigation Strategy: Butte County Planning Area Goals

Goal 1: Minimize risk and vulnerability of the community to hazards and reduce damages and protect lives, properties, and public health in Butte County

- Focus on the hazards that have the biggest impact on life safety
- Reduce the incidence of negative human consequences produced by a disaster
- Minimize economic and financial impacts
- Protect and preserve natural resources and the environment to preserve "our" way of life.
- Minimize impacts to both existing and future development

Goal 2: Provide protection for critical facilities, infrastructure, and services from hazard impacts.

- Protect/harden critical facilities, infrastructure, and lifeline utilities
- Minimize interruption of essential services
- Minimize effect of Public Safety Power Shutoff (PSPS) on critical infrastructure and services
- Provide for continuity of operations and essential services before, during, and after disasters
- Increase jurisdictional and statewide coordination to improve disaster response capabilities for designated critical facilities (shelters) such as the Butte County Fairgrounds

Goal 3: Increase public awareness of the risk and vulnerability of the community to hazards and promote personal awareness and responsibility

- Minimize damage to communities from disaster events through public awareness
- Enhance public outreach, education and preparedness to include all hazards of concern
- Educate residents and visitors on personal responsibility and self-reliance prior to, during, and after a disaster
- Train and educate public on actions to take during different emergencies
- Enhance public communications to keep public well informed during disasters
- Increase public's awareness and involvement in communities' mitigation projects

Goal 4: Increase communities' ability to be prepared for, respond to, and recover from a disaster event

- Improve/upgrade multi-agency mass warning and notification systems/Develop effective community warning systems for catastrophic events
- Implement better technology and processes for communication with public
- Increase inter-agency coordination and develop interagency mitigation and disaster response capabilities for major disasters
- Increase use of shared resources and facilities
- Increase and foster mutual aid to enhance and ensure desired response actions
- Provide staff and volunteers with education, training, and support to assist with disaster response
- Build and maximize GIS resources (platform, access, education)
- Minimize damage to communities from disaster events through comprehensive community planning at every stage to address all populations
- Enhance and participate in regional planning efforts in preparation for large events
- Improve communities' circulation, ingress and egress, and primary and secondary evacuation routes during disasters.
- Provide strategies and options for shelter in place at public facilities and parks for remote areas or if evacuation routes are blocked
- Actively prepare and practice (exercise) disaster plans to ensure effective implementation

- Provide effective and swift disaster recovery services (human and animals), resources, and relief

Goal 5: Reduce fire severity and intensity in Butte County and surrounding lands

- Reduce life safety issues, property loss, and damages associated with wildfires
- Prevent and reduce wildfire ignitions and wildfire-related losses
- Implement a fuels management strategy for fuels reduction by all landowners on both public and private lands
- Manage and reduce large fuel loads on non-grazed agricultural and grass lands
- Minimize danger of evacuation on roadways by reducing adjacent fuels
- Ongoing updates to Community Wildfire Protection Plans and Evacuation Routes (Projects?)

Goal 6: Coordinate land use development with LHMP and General Plan

- Consider and address priority hazards of concern in future land use planning and development
- Integrate regional and local climate change adaption planning efforts into future land use planning and development

Goal 7: Increase community resiliency to climate change's influence on disasters

- Integrate climate change into mitigation efforts for natural hazards with a focus on high loss disasters such as flood and wildfire

Goal 8: Ensure AB 2140 compliance

- Incorporate the LHMP Update into the Safety Element of the General Plan

Goal 9: Maintain FEMA eligibility/position the communities for grant funding.

- Monitor and communicate available grant programs, timelines, and processes to all communities.
- Educate jurisdictions/Annexes on how to utilize the LHMP during grant applications

Appendix B References

2006 Butte County Flood Mitigation Plan

2011 Butte County Emergency Operations Plan

2014 Butte County Hazard Mitigation Plan

2018 California State Hazard Mitigation Plan

2030 Butte County General Plan

2030 General Plan Conservation Element

2030 General Plan Land Use Element

2030 General Plan Safety Element

2030 General Plan Water Resources Element

ArkStorm at Tahoe - Stakeholder Perspectives on Vulnerabilities and Preparedness for an Extreme Storm Event in the Greater Lake Tahoe, Reno and Carson City Region. 2014.

Bureau of Land Management

Butte County 2015 - 2020 Community Wildfire Protection Plan

Butte County Assessor's Office

Butte County Building Department

Butte County Climate Adaptation Plan

Butte County Digital Flood Insurance Rate Map January 6, 2011 (updated with 8/30/2017 LOMRs)

Butte County Emergency Operations Plan

Butte County Flood Insurance Study January 6, 2011

Butte County General Plan Environmental Impact Report

Butte County GIS

Butte County Housing Element

Butte County Recovers

Butte County Rice Growers Association

Cal Atlas

Cal DWR Best Available Maps

CAL FIRE

CAL FIRE GIS datasets

Cal OES

Cal-Adapt

California Adaptation Planning Guide

California Department of Conservation

California Department of Finance, E-1 Report

California Department of Finance, E-4 Report

California Department of Finance, P-1 Report

California Department of Fish and Wildlife

California Department of Fish and Wildlife's Natural Diversity Database

California Department of Food and Agriculture

California Department of Parks and Recreation Office of Historic Preservation

California Department of Water Resources

California Department of Water Resources (Cal DWR) Division of Safety of Dams

California Department of Water Resources Best Available Maps

California Department of Water Resources DAC Mapping Tool

California Department of Water Resources Division of Safety of Dams

California Division of Mines and Geology

California Geological Survey

California Invasive Plant Council

California Native Plant Society

California Natural Diversity Database – BIOS Viewer Tool

California Natural Resource Agency

California Office of Emergency Services – Dam Inundation Data

California Office of Historic Preservation

California's Drought of 2007-2009, An Overview. State of California Natural Resources Agency, California Department of Water Resources.

Cal-IPC

CalTrans Truck Network

Chicowiki.org

City of Biggs General Plan 2014

City of Chico Climate Adaptation Plan

City of Chico 2030 General Plan

City of Chico Housing Element 2014-2022

City of Gridley 2030 General Plan

City of Oroville 2030 General Plan

City of Oroville Housing Element 2014-2022

Climate Change and Health Profile Report – Butte County

Climate Change and Health Profile Report – Colusa County

County Agricultural Commissioner's Annual Crop Reports

County and City staff

Debris Deposition in the Cherokee Canal Flood Control Project

DINS Damage Assessment

Don Schloesser, USGS, Biological Resources Division

Durham Irrigation District Municipal Service Review and Sphere of Influence Plan

Durham Irrigation District Final Municipal Service Review

Existing plans and studies

Feather River Recreation and Park District Municipal Service Review Update and Sphere of Influence Plan

Feather River Recreation and Park District 2020 Master Plan

FEMA

FEMA Disaster Declaration Database

FEMA: Building Performance Assessment: Oklahoma and Kansas Tornadoes

FEMA's HAZUS-MH 3.2 GIS-based inventory data

Flood Damage Survey Reports

HMPC input

Independent Forensic Team Report – Oroville Dam Spillway Incident.

Initial Study and Mitigated Negative Declaration Berry Creek Rancheria LOAPUD Annexation

IPCC Fifth Assessment Synthesis Report (2014)

Kenward, Alyson PhD, Adams-Smith, Dennis, and Raja, Urooj. Wildfires and Air Pollution – The Hidden Health Hazards of Climate Change. Climate Central. 2013.

Lake Oroville Area Public Utility District Municipal Service Review and Sphere of Influence Plan, 2013

Lake Oroville Area Public Utility District Sphere of Influence Update Final Environmental Impact Report

Levees in History: The Levee Challenge. Dr. Gerald E. Galloway, Jr., P.E., Ph.D., Water Policy Collaborative, University of Maryland, Visiting Scholar, USACE, IWR.

Liu, J.C., Mickley, L.J., Sulprizio, M.P. et al. Climatic Change. 138: 655. doi:10.1007/s10584-016-1762-6. 2016.

Multi-Hazard Identification and Risk Assessment, FEMA 1997

National Climatic Data Center Storm Events Database

National Drought Mitigation Center

National Drought Mitigation Center – Drought Impact Reporter

National Integrated Drought Information System

National Levee Database

National Oceanic and Atmospheric Administration's National Climatic Data Center

National Park Service

National Park Service – Historic American Buildings Survey and Historic American Engineering Record

National Weather Service

Natural Resource and Conservation Service

NOAA Storm Prediction Center

North Yuba Water District Rate Study September 2015

Pacific Gas and Electric Company

Paradise Irrigation District Consumer Confidence Report

Paradise Irrigation District Draft Water System Recovery Plan

Paradise Recreation and Park District Municipal Service Review Update and Sphere of Influence Plan

Personal interviews with planning team members and staff from the County and participating jurisdictions

Proceedings of the National Academy of Sciences

Public Health Alliance of Southern California

Public Policy Institute of California

Review of Interim Flood Control Survey Report on Sacramento River and Tributaries, Cherokee Canal and Butte Creek, 15 June 1948

Sacramento River Reclamation District

Science Magazine

South Feather Water and Power Agency Municipal Service Review Update and Sphere of Influence Plan

State of California Department of Conservation Farmland Mapping and Monitoring Program

Statewide GIS datasets from other agencies such as Cal OES, FEMA, USGS, CGS, Cal Atlas, and others

Town of Paradise General Plan, 1994

U.S. Census Bureau 2010 Household Population Estimates

U.S. Department of Transportation

U.S. Department of Transportation's Emergency Response Guidebook

U.S. Environmental Protection Agency

U.S. Fish and Wildlife Service

U.S. Fish and Wildlife Service's National Wetlands Inventory maps

U.S. Forest Service GIS datasets

U.S. Geological Survey

U.S. Geological Survey Landslide Maps

U.S. Occupational Safety and Health Administration

United States Geological Survey Open File Report 2015-3009

University of California

US Army Corps of Engineers

US Department of Agriculture

US Department of Transportation Pipeline and Hazardous Materials Safety Administration's Office of Hazardous Materials Safety

US Drought Monitor

US Farm Service Agency

US Fish and Wildlife Service

US Geological Survey: Volcanic Ash: Effect & Mitigation Strategies

USDA Forest Service Region 5

USGS – A Sight "Fearfully Grans" – Eruptions of Lassen Peak California, 1914 to 1917

USGS National Earthquake Information Center

USGS Publication 2014-3120

Vaisala National Lightning Detection Network

Western Regional Climate Center

Written descriptions of inventory and risks provided by Butte County

Appendix C Mitigation Strategy

C.1 Mitigation Strategy Meeting Handout

Butte County
Local Hazard Mitigation Plan Update
HMPC Meetings #4 & 5 - Mitigation Strategy: Actions
July 30 & 31, 2019

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AGENDA

Butte County
Local Hazard Mitigation Plan (LHMP) Update
HMPC Meetings #4 &5 - Mitigation Strategy: Actions
July 30 & 31, 2019

HMPC Meetings #4 & 5 - July 30 & 31, 2019:

1. Introductions
2. Identify and discuss Mitigation Alternatives/Actions/Projects
3. Review Mitigation Selection Criteria
4. Prioritize Mitigation Projects
5. Review of Schedule/Data Needs
6. Next Steps

Mitigation Strategy Meetings

Day 1

Butte County Hazard Identification & Profiles

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/ Severity	Significance	Climate Change Influence
Climate Change	Extensive	Likely	Limited	Medium	–
Dam Failure	Extensive	Occasional	Catastrophic	High	Medium
Drought & Water shortage	Extensive	Likely	Critical	Medium	High
Earthquake and Liquefaction	Extensive	Unlikely	Catastrophic	Medium	Low
Floods: 100/200/500 year	Significant	Likely	Critical	High	Medium
Floods: Localized Stormwater	Significant	Highly Likely	Limited	Medium	Medium
Hazardous Materials Transportation	Significant	Likely	Limited	Medium	Low
Invasive Species: Aquatic	Limited	Likely	Limited	Medium	Low
Invasive Species: Pests/Plants	Extensive	Highly Likely	Limited	Medium	Low
Landslide, Mudslide, Debris Flow	Significant	Likely	Critical	Medium	Medium
Levee Failure	Significant	Occasional	Critical	High	Medium
Severe Weather: Extreme Heat	Extensive	Highly Likely	Limited	Medium	High
Severe Weather: Freeze and Winter Storm	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: Heavy Rain and Storms (Hail, Lightning)	Extensive	Highly Likely	Limited	Medium	Medium
Severe Weather: Wind/ Tornado	Extensive	Highly Likely/Likely	Critical	Medium	Low
Stream Bank Erosion	Significant	Highly Likely	Limited	Medium	Low
Volcano	Extensive	Unlikely	Negligible	Low	Low
Wildfire	Extensive	Highly Likely	Catastrophic	High	High

Geographic Extent
Limited: Less than 10% of planning area
Significant: 10-50% of planning area
Extensive: 50-100% of planning area

Likelihood of Future Occurrences
Highly Likely: Near 100% chance of occurrence in next year, or happens every year.
Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.
Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.
Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.

Magnitude/Severity
Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths
Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability
Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability
Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid

Significance
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Climate Change Influence
Low: minimal potential impact
Medium: moderate potential impact
High: widespread potential impact

Risk Assessment Methodology

Calculating Likelihood of Future Occurrence

The frequency of past events is used in this section to gauge the likelihood of future occurrences. Based on historical data, the likelihood of future occurrence is categorized into one of the following classifications:

- **Highly Likely**: Near 100% chance of occurrence in next year, or happens every year.
- **Likely**: Between 10 and 90% chance of occurrence in next year, or has a recurrence interval of 10 years or less.
- **Occasional**: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.
- **Unlikely**: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.

Calculating Vulnerability

Vulnerability is measured in general, qualitative terms, and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential:

- **Extremely Low**: The occurrence and potential cost of damage to life and property is very minimal to non-existent.
- **Low**: Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**: Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**: Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have already occurred in the past.
- **Extremely High**: Very widespread and catastrophic impact.

Defining Significance (Priority) of a Hazard

Defining the significance or priority of a hazard to a community is based on a subjective analysis of several factors. This analysis is used to focus and prioritize hazards and associated mitigation measures for the plan. These factors include the following:

- **Past Occurrences**: Frequency, extent, and magnitude of historic hazard events.
- **Likelihood of Future Occurrences**: Based on past hazard events.
- **Ability to Reduce Losses through Implementation of Mitigation Measures**: This looks at both the ability to mitigate the risk of future occurrences as well as the ability to mitigate the vulnerability of a community to a given hazard event.

Risk Assessment Summary: Butte County Planning Area

Climate Change

- The 2018 State of California Multi-Hazard Mitigation Plan stated that climate change is already affecting California. Sea levels have risen by as much as seven inches along the California coast over the last century, increasing erosion and pressure on the state's infrastructure, water supplies, and natural resources. The State has also seen increased average temperatures, more extreme hot days, fewer cold nights, a lengthening of the growing season, shifts in the water cycle with less winter precipitation falling as snow, and both snowmelt and rainwater running off sooner in the year. Climate Change has the potential to alter the nature and frequency of most hazards.
- Butte County has a great CAP/Climate Vulnerability Assessment that we are pulling from.
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard

Dam Failure

- According to data provided by Cal OES and National Performance of Dam's data, there are 35 dams in Butte County constructed for flood control, storage, electrical generation, and recreational purposes. Of these, 16 are high hazard, 5 are significant hazard, 4 are low hazard, and 10 are not rated. (In process of updating classifications to include Extremely High)
- In addition to these dams, there are other dams outside the County with the potential to affect people and property in Butte County. These dams are: Shasta (Shasta County); Little Grass Valley Lake (Plumas County); Lake Almanor (Plumas County), and possibly Lake Davis (Sierra County).
- According to the General Plan Safety Element, Most substantial among is the Dams of concern in the County is the Oroville Dam, which has a storage capacity of over 3.5 million acre-feet. There are smaller dams at Lake Wyandotte, Lake Madrone, Lost Creek, Round Valley, Magalia Reservoir, and elsewhere. The failure of a dam may affect the dam site, downstream areas, floodwater routing, or all three.
- The National Performance of Dams data shows 5 dam incidents for Butte County since 1932: 1932, 1938, 1965, 1997, and 2017.
- Likelihood of Future Occurrence: Occasional
- Vulnerability: Extremely High
- Priority Hazard

Drought and Water Shortage

- Historical drought data for the Butte County Planning Area and region indicate there have been 5 significant droughts in the last 84 years.
- Since 2012, snowpack levels in California had dropped dramatically. 2015 estimates place snowpack at 5 percent of normal levels. However, snowpack levels increased in 2016 and in 2017 snowpack levels were the highest they've been in 22 years. But then back down again in early 2018, only to be back up again in late 2018/2019.

- 3 disaster declarations (1977, 2008, 2014) for Butte County since 1950. There have been 12 NCDC drought events in Butte County, all related to events in the 2015 to 2016 drought.
- According to the General Plan, approximately 75% of residential water supply is from Groundwater sources. Groundwater is more predominant in the western portion of the County as compared to the eastern portion. We are updating this with info from the Integrated Regional Water Management Plan.
- According to input from the last meeting on the previous drought, in addition to mandatory restrictions and increase in dry fuels contributing to the wildfire issues, lots of wells went dry, mostly in the fractured rock areas. Many wells on valley floor drilled or deepened. Other impacts included a curtailment of water rights to Ag users. DID IT AFFECT WATER DISTRICTS?
- HMPC – ANYTHING ELSE TO ADD?
- Likelihood of Future Occurrence: Drought - Likely/Water supply - Occasional
- Vulnerability: Medium
- Priority Hazard

Earthquake

- Within Butte County, there is one active fault – Cleveland Hills Fault, and one potentially active fault – Big Bend fault, with many active faults located outside the County. The County could experience considerable ground shaking generated by faults located both inside and outside Butte County.
- The USGS National Seismic Hazard Maps provides acceleration and probabilities for various time periods. This data indicates that the expected severity of earthquakes in the region is mostly low to moderate.
- There has been one disaster declaration for earthquake in the County - the 1975 Oroville earthquake. This registered as a 5.8 magnitude. Property damage estimated at $2.5M.
- In addition, the County has felt ground shaking from earthquakes with epicenters located elsewhere.
- From last meeting, biggest concern is a catastrophic earthquake in Bay Area or other populated areas where people go elsewhere to relocate. The Camp Fire demonstrated how difficult it can be to absorb large populations of displaced people.
- HMPC – ANYTHING ELSE TO ADD? HAVE ANY STUDIES BEEN DONE ON EARTHQUAKE AND SECONDARY IMPACTS SUCH AS TO DAMS AND LEVEES?
- Likelihood of Future Occurrence: Unlikely – large, damaging earthquake; Occasional – minor earthquake
- Vulnerability: High
- Priority Hazard

Earthquake Liquefaction

- Mapped areas of liquefaction potential are mapped in the County, with areas in the far western portion of the County in high liquefaction potential areas, moving to moderate in the middle portion of the County to low in the far eastern portion.
- HMPC –HAVE ANY STUDIES BEEN DONE ON LIQUEFACTION AND SECONDARY IMPACTS SUCH AS TO LEVEES?
- Likelihood of Future Occurrence: Unlikely
- Vulnerability: Medium
- Priority Hazard?

Flood Hazards

100/200/500 year

- Historically, portions of Butte County have always been at risk to flooding because of its annual percentage of rainfall in the winter and the number of watercourses that traverse the County. Flooding in Butte County results from prolonged heavy rainfall over tributary areas during the period from November through March.
- 19 state and 18 federal declarations from 1950-present were for heavy rains and flooding. Flooding is an ongoing issue for the planning area.
- HMPC - REVIEW RISK ASSESSMENT AND ADD INFORMATION ON MAJOR FLOOD EVENTS. NEED SUMMARY OF IMPACTS FROM 2017, 2018, and 2019 FLOOD EVENTS FOR ALL JURISDICTIONS - PA SHEETS
- Likelihood of Future Occurrence: 100-Occasional; 200 – Unlikely; 500-Unlikely
- Vulnerability: High
- Priority Hazard

Localized/Stormwater flooding

- Significant localized flood history in the County – occurs annually
- CAN THE HMPC PROVIDE DETAILS ON THESE AREAS? PICTURES/DESCRIPTIONS - NEED SPECIFIC TO EACH JURISDICTION.
- COUNTY AG DEPARTMENT IS WORKING ON REVIEWING AND UPDATING DATA
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: High
- Priority Hazard

Invasive Species: Aquatic

- Zebra and Quagga Mussels, invasive fish species, and aquatic weeds such as hydrilla, water hyacinth, Arundo, loosestrife, Sesbania, South American Spongeplant, and others are the primary issues.
- There have been no disaster declarations associated with invasive species in Butte County. The NCDC contains no records of invasive species in the County. Neither of these databases track these issues. 14 USDA declarations since 2012,:10 for drought, 2 for freeze, 2 for excessive rain and severe weather.
- CAN THE COUNTY PROVIDE INFORMATION ON PAST OCCURRENCES OR SPECIFIC CONCERNS/ISSUES SINCE THE LAST PLAN?
- COUNTY AG DEPARTMENT IS WORKING ON REVIEWING AND UPDATING DATA
- Likelihood of Future Occurrence: Likely - Highly Likely
- Vulnerability: Medium
- Priority Hazard

Invasive Species: Pests/Plants

- Numerous invasive species are common in Butte County: Gypsy Moth, Japanese Beetle, Light Brown Apple Moth, Mediterranean Fruit Fly, and Red Imported Fire Ant.
- There have been no disaster declarations associated with these invasive species incidents in Butte County. The NCDC contains no records of invasive species incidents in the County.

- CAN THE COUNTY PROVIDE INFORMATION ON PAST OCCURRENCES OR SPECIFIC CONCERNS/ISSUES?
- COUNTY AG DEPARTMENT IS WORKING ON REVIEWING AND UPDATING DATA
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium
- Priority Hazard

Hazardous Materials Transportation

- Several major transportation routes go through Butte County, with deliveries also occurring on many local routes. Highway routes: Highways 32, 45, 70, 99, 149, 162, 191 and 2 Union Pacific Railroad lines.
- There have been no disaster declarations associated with hazardous materials incidents in Butte County. The NCDC contains no records of hazardous materials incidents in the County. US DOT identifies 22 past spills since 1970.
- From last meeting: numerous rail accidents have occurred over the years. Shell Oil transport on Hwy 73 – is a big issue. Plumas County has seen its fair share of incidents which are a concern to Butte if releases are transported downstream.
- CAN THE COUNTY/JURISDICTIONS PROVIDE SPECFIC INFORMATION ON PAST INCIDENTS/AREAS/DAMAGES?
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard

Landslides, Mudslides, and Debris Flows

- There have been no disaster declarations associated with landslides in Butte County. The NCDC contains no records of landslides in the County.
- Landslide mapping indicate that portions of the eastern County are at moderate to high risk for landslides.
- WHAT SPECIFIC AREAS ARE AT RISK TO LANDSLIDES? NEED THIS FOR ALL JURISDICTIONS.
- CAN THE COUNTY/JURISDICTIONS PROVIDE INFORMATION ON PAST LANDSLIDE EVENTS?
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard?

Levee Failure

- Agricultural and flood control levees have been constructed in many areas of Butte, mostly on the western side of the County.
- WE HAVE NEW DATA ON LEVEES IN BUTTE COUNTY, AND THE LEVEL OF PROTECTION THEY PROVIDE. WILL NEED REVIEW AND VERIFICATION.
- No disaster declarations associated with levee failures; the NCDC does not identify any levee failure events.

- ANY PAST LEVEE FAILURE EVENTS/ISSUES/CONCERNS TO NOTE WITHIN EACH JURISDICTION?
- Likelihood of Future Occurrence: Occasional?
- Vulnerability: High
- Priority Hazard

Severe weather

Extreme Heat

- Annual occurrences of hot temperatures. The highest recorded daily extreme was 115°F in June 1962 and July 1972 in western Butte. In a typical year, maximum temperatures exceed 90°F on 93.3 days in western Butte. The highest recorded daily extreme was 113°F in August 1933 eastern Butte. In a typical year, maximum temperatures exceed 90°F on 51.2 days.
- 14 extreme heat event (NCDC) since 1993; No state or federal disaster declarations
- PLEASE PROVIDE DETAILS ON EXTREME HEAT EVENTS IN THE COUNTY/JURISDICTIONS.
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium
- Priority Hazard

Freeze and Winter Storms

- Annual occurrences of cold temperatures. The lowest recorded daily extreme was 12°F on December 22, 1990 in western Butte. In a typical year, minimum temperatures fall below 32°F on 21.8 days in western Butte, with no days falling below 0°. The lowest recorded daily extreme was -2°F on January 20, 1937. In a typical year, minimum temperatures fall below 32°F on 74.9 days with no days falling below 0°F.
- The County has had 2 past federal and 2 past state disaster declarations for extreme cold and freeze. NCDC identified 179 extreme cold or freeze events as well as snow and winter storm events.
- PLEASE PROVIDE DETAILS ON EXTREME COLD AND FREEZE EVENTS IN THE COUNTY/JURISDICTIONS. WHAT ARE THE MOST SIGNIFICANT ISSUES/CONCERNS?
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium
- Priority Hazard

Heavy rains and storms (Hail, Lightning)

- Significant County history: annual occurrences
- The NCDC data recorded 9 hail, 19 heavy rain, and 3 lightning events for Butte County since 1950.
- There have been 18 federal and 19 state declarations since 1950 for flooding, including heavy rains and storms.
- CAN THE HMPC PROVIDE DETAILS ON HEAVY RAIN AND STORM EVENTS IN THE COUNTY. JANUARY 2017/ RECENT 2018 AND 2019 STORMS – PA SHEEETS?
- Severe storms/heavy rains are the primary cause of most major flooding
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Medium

- Priority Hazard

High Winds and Tornadoes

- Significant County history: annual occurrences
- The NCDC data recorded 43 high wind and 16 tornado incidents for Butte County since 1950. Most tornado events were EF0 and EF1 intensities, with one EF2 noted.
- CAN THE HMPC PROVIDE INFORMATION ON PAST HIGH WINDS AND TORNADO EVENTS AND DAMAGES?
- From last meeting biggest concerns include power outages, downed trees. Fire damaged tree removal is a big concern moving forward.
- HMPC – ANYTHING ELSE TO ADD? WILL NEED INPUT SPECIFIC TO EACH JURISDICTION
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: High
- Priority Hazard

Stream Bank Erosion

- Stream bank erosion processes are driven by two major components: stream bank characteristics (erodibility) and hydraulic/gravitational forces. Stream bank erosion occurs on rivers, streams, and other moving waterways in the County
- From last meeting, sediment buildup in reservoirs, waterways is a big concern.
- WHAT ARE OTHER AREAS/CONCERNS/IMPACTS ASSOCIATED WITH STREAM BANK EROSION IN THE COUNTY? DOES THE COUNTY/CITIES HAVE MAPS/DATA OF PROBLEM AREAS? DO WAVE ACTIONS DURING HIGH WINDS CONTRIBUTE SIGNIFICANTLY TO STREAM BANK EORSION.
- Likelihood of Future Occurrence: Likely
- Vulnerability: Medium
- Priority Hazard?

Volcano

- Of the approximately 20 volcanoes in the State, only a few are active and pose a threat. Of these, Lassen Peak is the closest to Butte County. The Long Valley area is considered to be an active volcanic region of California and includes features such as the Mono-Inyo Craters, Long Valley Caldera, and numerous active and potential faults.
- The most recent eruptive activity occurred at Lassen Peak in 1914-1917. This eruptive episode began on May 30, 1914, when a small phreatic eruption occurred at a new vent near the summit of the peak. More than 150 explosions of various sizes occurred during the following year. The fall of fine ash was reported as far away as Elko Nevada, more than 300 miles east of Lassen Peak. Intermittent eruptions of variable intensity continued until about the middle of 1917
- NO MAJOR CONCERNS IDENTIFIED FROM LAST MEETING – STILL TRUE?
- Likelihood of Future Occurrence: Unlikely
- Vulnerability: Low
- Non-Priority Hazard

Wildfire

- Wildfires occur on an annual basis in the Butte County Planning Area.
- Any ignition has the potential to become an out of control wildfire. Wildfire is one of the most significant hazard the County faces.
- 10 federal and 8 state disaster declarations for Wildfire since 1950; 19 NCDC wildfire events since. The Camp Fire the most costly wildfire in California history.
- Likelihood of Future Occurrence: Highly Likely
- Vulnerability: Extremely High
- Priority Hazard

Butte County Priority Hazards

- Agricultural Hazards
- Climate Change
- Dam Failure
- Drought & Water Shortage
- Earthquake
- Earthquake Liquefaction
- Flood: 1%/0.2% annual chance
- Flood: Localized/Stormwater
- Hazardous Materials Transportation
- Landslide, Mudslide & Debris Flows
- Levee Failure
- Severe Weather: Extreme Cold and Freeze
- Severe Weather: Extreme Heat
- Severe Weather: Heavy Rains and Storms (wind, hail, lightning)
- Severe Weather: High Winds and Tornadoes
- Stream Bank Erosion
- Wildfire

Non-Priority Hazards:

- Volcano

Jurisdiction: _____

Priority Hazards???

- Agricultural Hazards
- Climate Change
- Dam Failure
- Drought & Water Shortage
- Earthquake
- Earthquake Liquefaction
- Flood: 1%/0.2% annual chance
- Flood: Localized/Stormwater
- Hazardous Materials Transportation
- Landslide, Mudslide & Debris Flows
- Levee Failure
- Severe Weather: Extreme Cold and Freeze
- Severe Weather: Extreme Heat
- Severe Weather: Heavy Rains and Storms (wind, hail, lightning)
- Severe Weather: High Winds and Tornadoes
- Stream Bank Erosion
- Volcano
- Wildfire

Data Needs

Review of Key Items to date:

- Hazard-specific data
  - ✓ Hazard ID tables
  - ✓ Historic Hazard Worksheets or list of past hazard occurrences and impacts to each jurisdiction
    - Old participating jurisdictions – need past occurrences/hazard history since 2013
    - New participating jurisdictions –significant hazard occurrences - back 50 years or so
- Risk Assessment Worksheets
- Data on future development areas (County/Cities)

Other Data Items:

General:

- Logos for each participating jurisdiction
- Historic Hazard Data and Key areas affected by Jurisdiction (items identified in today's meeting)
- EOC Activations
- PA Summaries
- Photos, Photos, Photos
- Review of Updated Chapter 4 Risk Assessment and Jurisdictional Annexes
- 2014 Mitigation Action Update Worksheets
- List of Mitigation Actions for each participating jurisdiction for each Priority Hazard for next meetings
- Other?

Mitigation Strategy: Goals

The most important element of the LHMP is the resulting mitigation strategy which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy is comprised of three components:

7. Mitigation Goals
8. Mitigation Actions
9. Action (Implementation) Plan

Mitigation Goals

Up to now, the HMPC has been involved in collecting and providing data for the Butte County Local Hazard Mitigation Plan Update. From this information, a Risk Assessment has been developed that describes the risk and vulnerability of the Butte County planning area to identified hazards and includes an assessment of the area's current capabilities for countering these threats through existing policies, regulations, programs, and projects.

This analysis identifies areas where improvements could or should be made. Formulating Goals will lead us to incorporating these improvements into the Mitigation Strategy portion of the plan. Our planning goals should provide direction for what loss reduction activities can be undertaken to make the planning area more disaster resistant.

Mitigation Goals are general guidelines that represent the community's vision for reducing or avoiding losses from identified hazards. Goals are stated without regard for achievement, that is, implementation cost, schedule, and means are not considered. Goals are public policy statements that:

- Represent basic desires of the jurisdiction;
- Encompass all aspects of planning area, public and private;
- Are nonspecific, in that they refer to the quality (not the quantity) of the outcome;
- Are future-oriented, in that they are achievable in the future; and
- Are time-independent, in that they are not scheduled events.

While goals are not specific (quantitative), they should not be so general as to be meaningless or unachievable.

Goals statements will form the basis for objectives. They should be stated in such a way as to develop one or more objectives related to each goal.

The key point in writing goals is to remember that they must deal with results, not the activities that produce those results.

Finally, before we formulate our goals, we should discuss other planning area goals from other regional/county/city programs and priorities. This keeps us from "reinventing the wheel," as well as being consistent with Multi-Objective Management --- or "MOM" --- where communities strive for efficiency by combining projects/needs that are similar in nature or location. Utilizing "MOM" effectively can result in

identifying multiple sources of funding that can be "packaged" and broadening the supporting constituency base by including "outcomes" desired by various stakeholder groups.

Types/Sources of other area mitigation plans and programs include:

- General Plans
- Stormwater Program and Plans
- Flood/Watershed Management Plans and Studies
- Drought Plans
- Community Wildfire Protection Plans
- Strategic Fire Plans
- Dam Emergency Action Plans
- Emergency Operations Plans
- Climate Adaptation Plans
- Other?

Sample Goals from other Plans

Goals from the 2018 California State Hazard Mitigation Plan

- Significantly reduce life loss and injuries.
- Minimize damage to structures and property, as well as minimizing interruption of essential services and activities.
- Protect the environment.
- Promote community resilience through integration of hazard mitigation with public policy and standard business practices.

Goals from the Butte County General Plan Health and Safety Element, 2030

Flood Hazards and Dam Inundation

- Goal HS-2: Protect people and property from flood risk.
- Goal HS-3: Prevent and reduce flooding.
- Goal HS-4: Reduce risks from levee failure.
- Goal HS-5: Reduce risks from dam inundation.

Seismic and Geologic Hazards

- Goal HS-6: Reduce risks from earthquakes.
- Goal HS-7: Reduce risks from steep slopes and landslides.
- Goal HS-8: Reduce risks from erosion.
- Goal HS-9: Reduce risks from expansive soils.
- Goal HS-10: Avoid subsidence from groundwater withdrawal.

Fire Hazards

- Goal HS-11: Reduce risks from wildland and urban fire.
- Goal HS-12: Protect people and property from wildland or urban fires

- Goal HS-13: Identify safe and effective evacuation routes and access for fire prevention and suppression.

Hazardous Materials

- Goal HS-14: Reduce risks from the harmful effects of hazardous materials.

Emergency Response and Disaster Preparedness

- Goal HS-15: Ensure that Butte County is prepared for emergency situations.

Community Health

- Goal HS-16: Provide for the health, safety and well-being of the county's present and future residents.

Butte County Emergency Operations Plan (EOP), 2011

Emergency Management Priorities

Butte County government will consider the following priorities in evaluating the mission, goals, objectives and operational strategies during response to each emergency:

- Protect human life including the timely dissemination of warning information.
- Save human lives and prevent further injuries.
- Rescue those in immediate danger.
- Maintain the continuity and sustainment of essential government operations.
- Safeguard and maintain critical infrastructure operations.
- Protect public and private property.
- Provide for the needs of survivors and those directly impacted.
- Restore essential services.
- Provide emergency public information.
- Restore normal operations and assist with recover

Butte County Community Wildfire Protection Plan (CWPP)

Values

One primary goal of the Community Wildfire Protection Plan is to identify, prioritize and protect the wide range of assets found throughout the wildlands of Butte County.

Butte County 2014 LHMP Update (This is what we are updating)

Goal 1: Minimize risk and vulnerability of the community to hazards and reduce damages and protect lives, properties, and public health in Butte County

- Minimize economic and resource impact
- Minimize impact to both existing and future development
- Prevent and reduce flood-related losses
- Prevent and reduce wildfire-related losses

- Prevent and reduce hazardous material-related losses

Goal 2: Provide protection for critical facilities, infrastructure, and services from hazard impacts.

Goal 3: Increase public awareness of the risk and vulnerability of the community to hazards

- Enhance public outreach, education and preparedness program to include all hazards of concern
- Encourage people to act in a way that enhances the survivability and sustainability of the community
- Increase public communications to keep the public well informed prior to, during and after a disaster event
  - ✓ Improve alert and warning capabilities informing public of hazard event
- Increase public's awareness and involvement in communities' mitigation projects

Goal 4: Increase communities' ability to be prepared for a disaster event

- Create and maintain a well-trained and fully functional Butte County/local agency EOC
  - ✓ Ensure adequate and continued operations of EOC
- Create and maintain a well-trained, well equipped, and fully functional First Responder network
- Develop plans (EOPs) and standing orders related to hazard preparedness and response activities to include evacuation, medical, shelter, access and functional needs, and related issues
- Create and maintain a fully functional, interoperable radio and communication system that complies with narrowbanding requirements
- Ensure adequate backup of electronic records

Goal 5: Increase interagency coordination and develop interagency mitigation and disaster response capabilities for all priority hazards

- Enhance use of shared resources
- Develop, educate, and train interacting agencies on primary and secondary means of communications during disasters

Goal 6: Maintain FEMA eligibility/position the communities for Grant funding.

Goals Development

You will each be given 3 sticky notes. On each note you will write what you think the goals for this mitigation planning effort should be. To get you started, provided below are possible goals for this mitigation plan. You may reword these or develop your own. These goal statements should serve as examples. It is vital that our Hazard Mitigation Planning Committee establish its own goals. Use one note card for each goal. The purpose of the goal development is to reach a consensus on plan goals.

- Minimize risk and vulnerability from natural hazards
- Increase communities' awareness of vulnerability to hazards
- Increase the use of shared resources
- Improve communities' capabilities to mitigate losses
- Maintain coordination of disaster plans with changing DHS/FEMA needs
- Maintain FEMA eligibility/position jurisdictions for grant funding
- Maintain/enhance the flood mitigation program to provide 200/500-year flood protection
- Maintain current service levels
- Provide protection for existing buildings from hazards
- Provide protection for future development from hazards
- Provide protection for natural and cultural resources from hazard impacts
- Provide protection for people's lives from hazards
- Provide protection for public health
- Provide protection for critical services (fire, police, etc.) from hazard impacts
- Provide protection for critical lifeline utilities from hazard impacts
- Reduce exposure to hazard related losses
- Reduce the number of emergency incidents
- Make better use of technology

When done, we will:

- Pin/tape them to the wall/easel-chart and arrange them by category
- Combine and reword them into 3-4 goals for the plan.

Mitigation Strategy Meetings
July 30 & 31, 2019
Day 3 and 4

Mitigation Strategy: Actions

Mitigation Actions are specific projects and activities that help achieve the goals and accomplish risk reduction in the community.

Categories of Mitigation Measures

PREVENTION: Preventive measures are designed to keep the problem from occurring or getting worse. Their objective is to ensure that future development is not exposed to damage and does not increase damage to other properties.

- Planning
- Zoning
- Open Space Preservation
- Land Development Regulations
  - ✓ Subdivision regulations
  - ✓ Building Codes
    - Fire-Wise Construction
  - ✓ Floodplain development regulations
  - ✓ Geologic Hazard Areas development regulations (for roads too!)
- Storm Water Management
- Fuels Management, Fire-Breaks

EMERGENCY SERVICES: protect people during and after a disaster. A good emergency services program addresses all hazards. Measures include:

- Warning (flooding, tornadoes, winter storms, geologic hazards, fire)
  - ✓ NOAA Weather Radio
  - ✓ Sirens
  - ✓ "Reverse 911" (Emergency Notification System)
- Emergency Response
  - ✓ Evacuation & Sheltering
  - ✓ Communications
  - ✓ Emergency Planning
    - Activating the EOC (emergency management)
    - Closing streets or bridges (police or public works)
    - Shutting off power to threatened areas (utility company)
    - Holding/releasing children at school (school district)
    - Ordering an evacuation (mayor)
    - Opening emergency shelters (Red Cross)
    - Monitoring water levels (engineering)
    - Security and other protection measures (police)
- Critical Facilities Protection (Buildings or locations vital to the response and recovery effort, such as police/fire stations, hospitals, sewage treatment plants/lift stations, power substations)

- ✓ Buildings or locations that, if damaged, would create secondary disasters, such as hazardous materials facilities and nursing homes
- ✓ Lifeline Utilities Protection

- Post-Disaster Mitigation
- Building Inspections
  - ✓ ID mitigation opportunities & funding before reconstruction

PROPERTY PROTECTION: Property protection measures are used to modify buildings subject to damage rather than to keep the hazard away. A community may find these to be inexpensive measures because often they are implemented by or cost-shared with property owners. Many of the measures do not affect the appearance or use of a building, which makes them particularly appropriate for historical sites and landmarks.

- Retrofitting/disaster proofing
  - ✓ Floods
    - Wet/Dry floodproofing (barriers, shields, backflow valves)
    - Relocation/Elevation
    - Acquisition
    - Retrofitting
  - ✓ High Winds/Tornadoes
    - Safe Rooms
    - Securing roofs and foundations with fasteners and tie-downs
    - Strengthening garage doors and other large openings
  - ✓ Winter Storms
    - Immediate snow/ice removal from roofs, tree limbs
    - "Living" snow fences
  - ✓ Geologic Hazards (Landslides, earthquakes, sinkholes)
    - Anchoring, bracing, shear walls
    - Dewatering sites, agricultural practices
    - Catch basins
  - ✓ Drought
    - Improve water supply (transport/storage/conservation)
    - Remove moisture competitive plants (Tamarisk/Salt Cedar)
    - Water Restrictions/Water Saver Sprinklers/Appliances
    - Grazing on CRP lands (no overgrazing-see Noxious Weeds)
    - Create incentives to consolidate/connect water services
    - Recycled wastewater on golf courses
  - ✓ Wildfire, Grassfires
    - Replacing building components with fireproof materials
    - Roofing, screening
    - Create "Defensible Space"
    - Installing spark arrestors
    - Fuels Modification

- ✓ Noxious Weeds/Insects
  - Mowing
  - Spraying
  - Replacement planting
  - Stop overgrazing
  - Introduce natural predators
- Insurance

NATURAL RESOURCE PROTECTION: Natural resource protection activities are generally aimed at preserving (or in some cases restoring) natural areas. In so doing, these activities enable the naturally beneficial functions of floodplains and watersheds to be better realized. These natural and beneficial floodplain functions include the following:

- storage of floodwaters
- absorption of flood energy
- reduction in flood scour
- infiltration that absorbs overland flood flow
- groundwater recharge
- removal/filtering of excess nutrients, pollutants, and sediments from floodwaters
- habitat for flora and fauna
- recreational and aesthetic opportunities

Methods of protecting natural resources include:

- Wetlands Protection
- Riparian Area/Habitat Protection/Threatened-Endangered Species
- Erosion & Sediment Control
- Best Management Practices

Best management practices ("BMPs") are measures that reduce nonpoint source pollutants that enter the waterways. Nonpoint source pollutants come from non-specific locations. Examples of nonpoint source pollutants are lawn fertilizers, pesticides, and other farm chemicals, animal wastes, oils from street surfaces and industrial areas and sediment from agriculture, construction, mining and forestry. These pollutants are washed off the ground's surface by stormwater and flushed into receiving storm sewers, ditches and streams. BMPs can be implemented during construction and as part of a project's design to permanently address nonpoint source pollutants. There are three general categories of BMPs:

10. Avoidance: setting construction projects back from the stream.
11. Reduction: Preventing runoff that conveys sediment and other water-borne pollutants, such as planting proper vegetation and conservation tillage.
12. Cleanse: Stopping pollutants after they are en route to a stream, such as using grass drainageways that filter the water and retention and detention basins that let pollutants settle to the bottom before they are drained

- Dumping Regulations
- Set-back regulations/buffers

- Fuels Management
- Water Use Restrictions
- Landscape Management
- Weather Modification

STRUCTURAL: Projects that have traditionally been used by communities to control flows and water surface elevations. Structural projects keep flood waters away from an area. They are usually designed by engineers and managed or maintained by public works staff. These measures are popular with many because they "stop" flooding problems. However, structural projects have several important shortcomings that need to be kept in mind when considering them for flood hazard mitigation:

- They are expensive, sometimes requiring capital bond issues and/or cost sharing with Federal agencies, such as the U.S. Army Corps of Engineers or the Natural Resources Conservation Service.
- They disturb the land and disrupt natural water flows, often destroying habitats or requiring Environmental Assessments.
- They are built to a certain flood protection level that can be exceeded by a larger flood, causing extensive damage.
- They can create a false sense of security when people protected by a structure believe that no flood can ever reach them.
- They require regular maintenance to ensure that they continue to provide their design protection level.

Structural measures include:
- Detention/Retention structures
- Erosion and Sediment Control
- Basins/Low-head Weirs
- Channel Modifications
- Culvert resizing/replacement/Maintenance
- Levees and Floodwalls
- Anchoring, grading, debris basins (for landslides)
- Fencing (for snow, sand, wind)
- Drainage System Maintenance
- Reservoirs (for flood control, water storage, recreation, agriculture)
- Diversions
- Storm Sewers

PUBLIC INFORMATION: A successful hazard mitigation program involves both the public and private sectors. Public information activities advise property owners, renters, businesses, and local officials about hazards and ways to protect people and property from these hazards. These activities can motivate people to take protection

- Hazard Maps and Data
- Outreach Projects (mailings, media, web, speakers, displays)
- Library Resources
- Real Estate Disclosure
- Environmental Education

Mitigation Strategy: Action Plan

The mitigation action plan describes how the mitigation actions will be implemented, including how those actions will be prioritized, administered, and incorporated into the community's existing planning mechanism. Each participating jurisdiction must have a mitigation action(s) and an action plan specific to that jurisdiction and its priority hazards and vulnerabilities.

Mitigation Criteria

For use in selecting and prioritizing Proposed Mitigation Measures

1. STAPLEE

Social: Does the measure treat people fairly? (different groups, different generations)

- Community Acceptance
- Effect on Segment of Population
- Social Benefits

Technical: Will it work? (Does it solve the problem? Is it feasible?)

- Technical Feasibility
- Reduce Community Risk
- Long Term Solution/Sustainable
- Secondary Impacts

Administrative: Do you have the capacity to implement & manage project?

- Staffing
- Funding Allocated
- Maintenance/Operations

Political: Who are the stakeholders? Did they get to participate? Is there public support? Is political leadership willing to support?

- Political Support
- Local Champion
- Public Support
- Achieves Multiple Objectives
- Supported by a broad array of Stakeholders

Legal: Does your organization have the authority to implement? Is it legal? Are there liability implications?

- Existing Local Authority
- State Authority
- Potential Legal Challenges

Economic: Is it cost-beneficial? Is there funding? Does it contribute to the local economy or economic development?

- Benefit of Action
- Cost of Action
- Cost Effective/Economic Benefits
- Economically Viable
- Outside Funding Required

Environmental: Does it comply with Environmental regulations?

- Effect on Land/Water
- Effect on Endangered Species
- Effect on Cultural Resources
- Effect on Hazmat sites
- Consistent with Community Environmental Goals
- Consistent with Environmental Laws
- Environmental Benefits

2. SUSTAINABLE DISASTER RECOVERY

- Quality of Life
- Social Equity
- Hazard Mitigation
- Economic Development
- Environmental Protection/Enhancement
- Community Participation

3. SMART GROWTH PRINCIPLES

- Infill versus Sprawl
- Efficient Use of Land Resources
- Full Use of Urban Resources
- Mixed Uses of Land
- Transportation Options
- Detailed, Human-Scale Design

4. OTHER

- Does measure address area with highest risk?
- Does measure protect …
  - ✓ The largest # of people exposed to risk?
  - ✓ The largest # of buildings?
  - ✓ The largest # of jobs?
  - ✓ The largest tax income?
  - ✓ The largest average annual loss potential?
  - ✓ The area impacted most frequently?

- ✓ Critical Infrastructure (access, power, water, gas, telecommunications)
- Timing of Available funding
- Visibility of Project
- Community Credibility

Mitigation Action Prioritization Instructions

Our Team recommendations are listed on flip-chart paper around the room.

You each have 3 sets of colored dots:

- 3 red dots
- 3 blue dots
- 3 green dots

The red dots are for high priority (5 points each)

The blue dots are for medium priority (3 points each)

The green dots are for low priority (1 point each)

Place your dots on the recommendations, using the different colors to indicate your priority. You may use as many of your dots, of any color, on any recommendation --- or you may spread them out using as few of your dots as you wish. The dots will indicate the consensus of the team.

Use your list of criteria to help you make your determinations.

After the totals are counted, we will discuss them further to confirm or change any of the results as we see fit.

Mitigation Action Worksheet

Jurisdiction:	
Mitigation Action/Project Title:	
Hazards Addressed:	
Issue/Background:	
Project Description:	
Other Alternatives:	
Existing Planning Mechanism(s) through which Action Will Be Implemented:	
Responsible Office/Partners:	
Cost Estimate:	
Benefits (Losses Avoided):	
Potential Funding:	
Timeline:	
Project Priority:	

Worksheet completed by:	
Name and Title:	
Phone:	

Butte County
Local Hazard Mitigation Plan Update
Mitigation Strategy Meetings: Mitigation Actions v/1
July 30, 2019

Responsible Department/ Staff	Mitigation Action Title	Hazards Addressed	Points/ Worksheet Status
	Public awareness, education, outreach, and preparedness program enhancements for all hazards – whole community (vulnerable populations), consistent messaging, utilizing a variety of mechanisms (multi-media, educate and clarify various emergency systems, messaging and training; promote self-responsibility)	Public Outreach/ Multi-hazard	2
	Code red outreach	Public Outreach/ Multi-hazard	12
	Incorporate LHMP Update by reference through council adoption into the safety element of the General Plan	Multi-hazard	N/A*
	Butte County Emergency Notification System	Multi-hazard	43
	Butte County evacuation planning for all hazards; include establishment of sheltering in place and refuge areas (to include all critical hazards, at risk populations, medical, ADA, animals)	Emergency Services/ Multi-hazard	19
	Reginal evacuation assessment (people and animals)	Emergency Services/ Multi-hazard	11
	Optimization of public transportation during evacuations/ hazard events	Emergency Services/ Multi-hazard	1
	Multi-agency regional, integrated planning for PSPS issues	Emergency Services/Multi-hazard	14
	Establish backup power/generators for critical facilities	Emergency Services/Multi-hazard	46
	Traffic light generators	Emergency Services/Multi-hazard	0
	Light tower generators	Emergency Services/Multi-hazard	0
	Fuel source planning	Emergency Services/Multi-hazard	0
	Portable message boards	Emergency Services/Multi-hazard	0
	Fairgrounds EOP and shelter planning (animals and people)	Emergency Services/Multi-hazard	10

Responsible Department/ Staff	Mitigation Action Title	Hazards Addressed	Points/ Worksheet Status
	Recovery Planning	Emergency Services/Multi-hazard	N/A*
	Climate Change Adaptation Planning	Climate Change	18
	Implement Climate Change strategies from existing climate change plans	Climate Change	8
	Continue to update and refine evacuation plans	Dam Failure	11
	Conduct training and exercises for dam failure events	Dam Failure	8
	Control messaging and manage rumors	Dam Failure	6
	Continue conservation measure	Drought & Water Supply	0
	Evaluate purple pipes	Drought & Water Supply	0
	Generator backups for wells (PSPS)	Drought & Water Supply	3
	Evaluate alternate water supplies	Drought & Water Supply	13
	Groundwater recharge projects	Drought & Water Supply	1
	Water company intertie projects to ensure continuity of water delivery	Drought & Water Supply	1
	Implement regional water management plan (IRWMP)	Drought & Water Supply	0
	URM and soft story inventory and retrofits	Earthquake	7
	Shelter planning to accommodate out-of-town earthquake victims	Emergency Services/ Earthquake	6
	Flood ordinance review and update	Flood	0
	Implement stormwater management plan	Flood	0
	Paradise stormwater master plan	Flood	0
	Chico stormwater master plan	Flood	0
	Identification and implementation of erosion projects at various problem locations	Flood/ Stream Bank Erosion	0
	Conduct drainage studies and implement selected alternatives	Flood	0
	Palermo drainage study	Flood	0
	Nord/ Rock Creek flood improvements	Flood	11
	Culvert upsizing	Flood	1
	Develop/update Heat Contingency Plan with options for cooling center, transportation, public education	Extreme Heat	3

Responsible Department/ Staff	Mitigation Action Title	Hazards Addressed	Points/ Worksheet Status
	Tree mitigation	Heavy Rains and Storms/ High Winds Wildfire	23
	Standing burnt tree removal project	Heavy Rains and Storms/ High Winds/ Wildfire	1
	Utility Undergrounding for very high fire hazard severity zones	Heavy Rains and Storms/ High Winds/ Wildfire	5
	Utility undergrounding for new development	Heavy Rains and Storms/ High Winds/ Wildfire	5
	Evaluate and mitigate streambank erosion impacts from high winds/wave action/floods.	Streambank erosion	0
	Establish plan to identify and protect vulnerable populations	Emergency Services/ Freeze and Winter Storms	10
	Establish warning systems and shelter information	Emergency Services / Winds and Tornadoes	19
	Safe rooms	Emergency Services / Winds and Tornadoes	0
	PSPS Planning	Heat/ Winds and Tornadoes/ Wildfire (red flag days)	20
	Tree mitigation projects	High Winds and Tornadoes/ Wildfire	18
	Identify/fulfill needs related to haz mat response (equipment, trailers, training, exercises, etc.)	Hazardous Materials Transportation	15
	Continue mutual aid agreements and support for hazardous material transportation accidents	Hazardous Materials Transportation	22
	Post-fire burn scar mitigation	Landslide/ mudslide/debris flow	2
	Identify and mitigate problem landslide and slip out areas such as those resulting from February 2019 Storms	Landslide/ mudslide/debris flow	13
	Continue levee certification projects (100 and 200 year)	Levee Failure	4
	Levee maintenance projects	Levee Failure	3

Responsible Department/ Staff	Mitigation Action Title	Hazards Addressed	Points/ Worksheet Status
	Levee armoring projects	Levee Failure	1
	Update countywide CWPP and project implementation	Wildfire	5
	Neal Road fire escape	Wildfire	0
	Concow Road fire escape	Wildfire	0
	Skyway safety improvements	Wildfire	0
	Pentz Road improvements	Wildfire	0
	Cohasset Road improvements	Wildfire	6
	Vegetation management on right-of-ways	Wildfire	14
	Fire breaks/shaded fuel breaks	Wildfire	3
	Fuels reduction projects	Wildfire	33
	Promote firewise communities	Wildfire	0
	Defensible space programs	Wildfire	0
	Ignition resistant development and standards	Wildfire	0
	Prescribed burns	Wildfire	3
	Code changes and enhancements	Wildfire	24
	Enforcement of weed abatement ordinances	Wildfire	11
	Scotch Broom eradication	Wildfire	0
	Goat mitigation	Wildfire	10

Appendix D Adoption Resolution

Note to Reviewers: When this plan has been reviewed and approved pending adoption by FEMA Region IX, the adoption resolutions will be signed by the participating jurisdictions and added to this appendix. Two model resolutions are provided below. The first sample resolution is for the County and incorporated communities; the second is for participating districts.

Sample Resolution: Butte County and incorporated communities

Resolution # _____

Adopting the Butte County Local Hazard Mitigation Plan

WHEREAS, The (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) 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, the (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) 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 Butte County Local Hazard Mitigation Plan and approve it contingent upon this official adoption of the participating governing body; and

WHEREAS, the (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Butte County Local Hazard Mitigation Plan by reference into the Safety Element of the General Plan in accordance with the requirements of AB 2140; and

WHEREAS, adoption by the governing body for the (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) 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.

NOW, THEREFORE, BE IT RESOLVED that the (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) adopts the Butte County Local Hazard Mitigation Plan as an official plan; and

BE IT RESOLVED, that the (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) adopts the Butte 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, the (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) 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 requirement of AB 2140.

Passed:_____
(date)

_____
Certifying Official

Sample Resolution: Special Districts in Butte County

Resolution # _____

Adopting the Butte County Local Hazard Mitigation Plan

Whereas, (Name of Government/District/Organization seeking FEMA approval of hazard mitigation plan) 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;

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

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, (Name of Government/District/Organization) 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 Butte County Local Hazard Mitigation Plan and approved it contingent upon this official adoption of the participating governing body;

Whereas, the (Name of Government/District/Organization) desires to comply with the requirements of the Disaster Mitigation Act and to augment its emergency planning efforts by formally adopting the Butte County Local Hazard Mitigation Plan;

Whereas, adoption by the governing body for the (Name of Government/District/Organization), demonstrates the jurisdiction's commitment to fulfilling the mitigation goals and objectives outlined in this Local Hazard Mitigation Plan.

Whereas, adoption of this legitimizes the plan and authorizes responsible agencies to carry out their responsibilities under the plan.

Now, therefore, be it resolved, that the (Name of Government/District/Organization) adopts the Butte County Local Hazard Mitigation Plan as an official plan; and

Be it further resolved, (Name of Government/District/Organization) 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.

Passed:_____
(date)

_____
Certifying Official

Appendix E Threatened and Endangered Species

Table E-1 Special Status Species in Butte County

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Animals - Amphibians					
Ambystoma californiense	California tiger salamander	Threatened	Threatened	WL	–
Ambystoma macrodactylum sigillatum	southern long-toed salamander	None	None	SSC	–
Rana boylii	foothill yellow-legged frog	None	Candidate Threatened	SSC	–
Rana cascadae	Cascades frog	None	Candidate Endangered	SSC	–
Rana draytonii	California red-legged frog	Threatened	None	SSC	–
Rana sierrae	Sierra Nevada yellow-legged frog	Endangered	Threatened	WL	–
Spea hammondii	western spadefoot	None	None	SSC	–
Animals - Birds					
Accipiter gentilis	northern goshawk	None	None	SSC	–
Aquila chrysaetos	golden eagle	None	None	FP ; WL	–
Buteo swainsoni	Swainson's hawk	None	Threatened	–	–
Circus hudsonius	northern harrier	None	None	SSC	–
Elanus leucurus	white-tailed kite	None	None	FP	–
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	FP	–
Bucephala islandica	Barrow's goldeneye	None	None	SSC	–
Cypseloides niger	black swift	None	None	SSC	–
Ardea alba	great egret	None	None	–	–
Ardea herodias	great blue heron	None	None	–	–
Botaurus lentiginosus	American bittern	None	None	–	–
Egretta thula	snowy egret	None	None	–	–
Nycticorax nycticorax	black-crowned night heron	None	None	–	–
Gymnogyps californianus	California condor	Endangered	Endangered	FP	–
Charadrius montanus	mountain plover	None	None	SSC	–
Pica nuttalli	yellow-billed magpie	None	None	–	–
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	Endangered	–	–
Falco columbarius	merlin	None	None	WL	–
Falco mexicanus	prairie falcon	None	None	WL	–

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Falco peregrinus anatum	American peregrine falcon	Delisted	Delisted	FP	–
Antigone canadensis tabida	greater sandhill crane	None	Threatened	FP	–
Progne subis	purple martin	None	None	SSC	–
Riparia riparia	bank swallow	None	Threatened	–	–
Agelaius tricolor	tricolored blackbird	None	Candidate Endangered	SSC	–
Xanthocephalus xanthocephalus	yellow-headed blackbird	None	None	SSC	–
Icteria virens	yellow-breasted chat	None	None	SSC	–
Lanius ludovicianus	loggerhead shrike	None	None	SSC	–
Pandion haliaetus	osprey	None	None	WL	–
Setophaga petechia	yellow warbler	None	None	SSC	–
Melospiza melodia	song sparrow (-inModesto-in population)	None	None	SSC	–
Phalacrocorax auritus	double-crested cormorant	None	None	WL	–
Melanerpes lewis	Lewis' woodpecker	None	None	–	–
Sphyrapicus ruber	red-breasted sapsucker	None	None	–	–
Laterallus jamaicensis coturniculus	California black rail	None	Threatened	FP	–
Asio otus	long-eared owl	None	None	SSC	–
Athene cunicularia	burrowing owl	None	None	SSC	–
Strix nebulosa	great gray owl	None	Endangered	–	–
Selasphorus rufus	rufous hummingbird	None	None	–	–
Contopus cooperi	olive-sided flycatcher	None	None	SSC	–
Empidonax traillii	willow flycatcher	None	Endangered	–	–
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	–	–
Animals - Crustaceans					
Branchinecta conservatio	Conservancy fairy shrimp	Endangered	None	–	–
Branchinecta lynchi	vernal pool fairy shrimp	Threatened	None	–	–
Branchinecta mesovallensis	midvalley fairy shrimp	None	None	–	–
Linderiella occidentalis	California linderiella	None	None	–	–
Lepidurus packardi	vernal pool tadpole shrimp	Endangered	None	–	–
Animals - Fish					
Acipenser medirostris	green sturgeon	Threatened	None	SSC	–
Cottus gulosus	riffle sculpin	None	None	SSC	–
Lavinia exilicauda exilicauda	Sacramento hitch	None	None	SSC	–
Mylopharodon conocephalus	hardhead	None	None	SSC	–
Pogonichthys macrolepidotus	Sacramento splittail	None	None	SSC	–

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Hysterocarpus traskii traskii	Sacramento-San Joaquin tule perch	None	None	–	–
Entosphenus tridentatus	Pacific lamprey	None	None	SSC	–
Oncorhynchus mykiss irideus pop. 1	steelhead - Klamath Mountains Province DPS	None	None	SSC	–
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Threatened	None	–	–
Oncorhynchus tshawytscha pop. 13	chinook salmon - Central Valley fall / late fall-run ESU	None	None	SSC	–
Oncorhynchus tshawytscha pop. 6	chinook salmon - Central Valley spring-run ESU	Threatened	Threatened	–	–
Animals - Insects					
Anthicus antiochensis	Antioch Dunes anthicid beetle	None	None	–	–
Anthicus sacramento	Sacramento anthicid beetle	None	None	–	–
Bombus occidentalis	western bumble bee	None	None	–	–
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Threatened	None	–	–
Animals - Mammals					
Aplodontia rufa californica	Sierra Nevada mountain beaver	None	None	SSC	–
Canis lupus	gray wolf	Endangered	Endangered	–	–
Vulpes vulpes necator	Sierra Nevada red fox	Candidate	Threatened	–	–
Vulpes vulpes patwin	Sacramento Valley red fox	None	None	–	–
Erethizon dorsatum	North American porcupine	None	None	–	–
Eumops perotis californicus	western mastiff bat	None	None	SSC	–
Martes caurina sierrae	Sierra marten	None	None	–	–
Pekania pennanti	fisher - West Coast DPS	None	Threatened	SSC	–
Taxidea taxus	American badger	None	None	SSC	–
Antrozous pallidus	pallid bat	None	None	SSC	–
Corynorhinus townsendii	Townsend's big-eared bat	None	None	SSC	–
Lasionycteris noctivagans	silver-haired bat	None	None	–	–
Lasiurus blossevillii	western red bat	None	None	SSC	–
Lasiurus cinereus	hoary bat	None	None	–	–
Myotis ciliolabrum	western small-footed myotis	None	None	–	–
Myotis evotis	long-eared myotis	None	None	–	–
Myotis thysanodes	fringed myotis	None	None	–	–
Myotis yumanensis	Yuma myotis	None	None	–	–
Animals - Mollusks					

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Monadenia churchi	Klamath sideband	None	None	–	–
Trilobopsis tehamana	Tehama chaparral	None	None	–	–
Anodonta californiensis	California floater	None	None	–	–
Gonidea angulata	western ridged mussel	None	None	–	–
Animals - Reptiles					
Emys marmorata	western pond turtle	None	None	SSC	–
Thamnophis gigas	giant gartersnake	Threatened	Threatened	–	–
Phrynosoma blainvillii	coast horned lizard	None	None	SSC	–
Community - Terrestrial					
–	Coastal and Valley Freshwater Marsh	None	None	–	–
–	Great Valley Cottonwood Riparian Forest	None	None	–	–
–	Great Valley Mixed Riparian Forest	None	None	–	–
–	Great Valley Valley Oak Riparian Forest	None	None	–	–
–	Great Valley Willow Scrub	None	None	–	–
–	Northern Basalt Flow Vernal Pool	None	None	–	–
–	Northern Hardpan Vernal Pool	None	None	–	–
–	Northern Volcanic Mud Flow Vernal Pool	None	None	–	–
Plants - Bryophytes					
Anomobryum julaceum	slender silver moss	None	None	–	4.2
Bryum chryseum	brassy bryum	None	None	–	4.3
Plagiobryoides vinosula	wine-colored tufa moss	None	None	–	4.2
Campylopodiella stenocarpa	flagella-like atractylocarpus	None	None	–	2B.2
Trichodon cylindricus	cylindrical trichodon	None	None	–	2B.2
Fissidens pauperculus	minute pocket moss	None	None	–	1B.2
Meesia triquetra	three-ranked hump moss	None	None	–	4.2
Meesia uliginosa	broad-nerved hump moss	None	None	–	2B.2
Mielichhoferia elongata	elongate copper moss	None	None	–	4.3
Plants - Lichens					
Peltigera gowardii	western waterfan lichen	None	None	–	4.2
Plants - Vascular					
Sagittaria sanfordii	Sanford's arrowhead	None	None	–	1B.2

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Allium jepsonii	Jepson's onion	None	None	–	1B.2
Allium sanbornii var. sanbornii	Sanborn's onion	None	None	–	4.2
Perideridia bacigalupii	Bacigalupi's yampah	None	None	–	4.2
Sanicula tracyi	Tracy's sanicle	None	None	–	4.2
Balsamorhiza macrolepis	big-scale balsamroot	None	None	–	1B.2
Calycadenia oppositifolia	Butte County calycadenia	None	None	–	4.2
Centromadia parryi ssp. parryi	pappose tarplant	None	None	–	1B.2
Centromadia parryi ssp. rudis	Parry's rough tarplant	None	None	–	4.2
Erigeron inornatus var. calidipetris	hot rock daisy	None	None	–	4.3
Erigeron petrophilus var. sierrensis	northern Sierra daisy	None	None	–	4.3
Hesperevax caulescens	hogwallow starfish	None	None	–	4.2
Lasthenia ferrisiae	Ferris' goldfields	None	None	–	4.2
Layia septentrionalis	Colusa layia	None	None	–	1B.2
Microseris sylvatica	sylvan microseris	None	None	–	4.2
Oreostemma elatum	tall alpine-aster	None	None	–	1B.2
Packera eurycephala var. lewisrosei	Lewis Rose's ragwort	None	None	–	1B.2
Azolla microphylla	Mexican mosquito fern	None	None	–	4.2
Betula glandulosa	dwarf resin birch	None	None	–	2B.2
Cryptantha rostellata	red-stemmed cryptantha	None	None	–	4.2
Cardamine pachystigma var. dissectifolia	dissected-leaved toothwort	None	None	–	1B.2
Streptanthus drepanoides	sickle-fruit jewelflower	None	None	–	4.3
Streptanthus longisiliquus	long-fruit jewelflower	None	None	–	4.3
Brasenia schreberi	watershield	None	None	–	2B.3
Githopsis pulchella ssp. serpentinicola	serpentine bluecup	None	None	–	4.3
Eremogone cliftonii	Clifton's eremogone	None	None	–	1B.3
Paronychia ahartii	Ahart's paronychia	None	None	–	1B.1
Silene occidentalis ssp. longistipitata	long-stiped campion	None	None	–	1B.2
Silene occidentalis ssp. occidentalis	western campion	None	None	–	4.3
Stellaria longifolia	long-leaved starwort	None	None	–	2B.2
Stellaria obtusa	obtuse starwort	None	None	–	4.3
Atriplex cordulata var. cordulata	heartscale	None	None	–	1B.2
Atriplex minuscula	lesser saltscale	None	None	–	1B.1

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Atriplex subtilis	subtle orache	None	None	–	1B.2
Calystegia atriplicifolia ssp. buttensis	Butte County morning-glory	None	None	–	4.2
Sedum albomarginatum	Feather River stonecrop	None	None	–	1B.2
Hesperocyparis bakeri	Baker cypress	None	None	–	4.2
Bulbostylis capillaris	thread-leaved beakseed	None	None	–	4.2
Carex cyrtostachya	Sierra arching sedge	None	None	–	1B.2
Carex davyi	Davy's sedge	None	None	–	1B.3
Carex geyeri	Geyer's sedge	None	None	–	4.2
Carex limosa	mud sedge	None	None	–	2B.2
Carex xerophila	chaparral sedge	None	None	–	1B.2
Eriophorum gracile	slender cottongrass	None	None	–	4.3
Rhynchospora californica	California beaked-rush	None	None	–	1B.1
Rhynchospora capitellata	brownish beaked-rush	None	None	–	2B.2
Schoenoplectus subterminalis	water bulrush	None	None	–	2B.3
Drosera anglica	English sundew	None	None	–	2B.3
Arctostaphylos mewukka ssp. truei	True's manzanita	None	None	–	4.2
Vaccinium coccineum	Siskiyou Mountains huckleberry	None	None	–	3.3
Euphorbia hooveri	Hoover's spurge	Threatened	None	–	1B.2
Astragalus pauperculus	depauperate milk-vetch	None	None	–	4.3
Astragalus tener var. ferrisiae	Ferris' milk-vetch	None	None	–	1B.1
Rupertia hallii	Hall's rupertia	None	None	–	1B.2
Trifolium jokerstii	Butte County golden clover	None	None	–	1B.2
Juglans hindsii	Northern California black walnut	None	None	–	1B.1
Juncus leiospermus var. ahartii	Ahart's dwarf rush	None	None	–	1B.2
Juncus leiospermus var. leiospermus	Red Bluff dwarf rush	None	None	–	1B.1
Monardella venosa	veiny monardella	None	None	–	1B.1
Wolffia brasiliensis	Brazilian watermeal	None	None	–	2B.3
Utricularia intermedia	flat-leaved bladderwort	None	None	–	2B.2
Fritillaria eastwoodiae	Butte County fritillary	None	None	–	3.2
Fritillaria pluriflora	adobe-lily	None	None	–	1B.2
Lilium humboldtii ssp. humboldtii	Humboldt lily	None	None	–	4.2
Limnanthes floccosa ssp. californica	Butte County meadowfoam	Endangered	Endangered	–	1B.1

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Limnanthes floccosa ssp. floccosa	woolly meadowfoam	None	None	–	4.2
Hibiscus lasiocarpos var. occidentalis	woolly rose-mallow	None	None	–	1B.2
Sidalcea gigantea	giant checkerbloom	None	None	–	4.3
Sidalcea robusta	Butte County checkerbloom	None	None	–	1B.2
Claytonia palustris	marsh claytonia	None	None	–	4.3
Claytonia parviflora ssp. grandiflora	streambank spring beauty	None	None	–	4.2
Lewisia cantelovii	Cantelow's lewisia	None	None	–	1B.2
Lewisia kelloggii ssp. hutchisonii	Hutchison's lewisia	None	None	–	3.2
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	None	None	–	4.2
Clarkia gracilis ssp. albicaulis	white-stemmed clarkia	None	None	–	1B.2
Clarkia mildrediae ssp. lutescens	golden-anthered clarkia	None	None	–	4.2
Clarkia mildrediae ssp. mildrediae	Mildred's clarkia	None	None	–	1B.3
Clarkia mosquinii	Mosquin's clarkia	None	None	–	1B.1
Botrychium ascendens	upswept moonwort	None	None	–	2B.3
Botrychium crenulatum	scalloped moonwort	None	None	–	2B.2
Botrychium minganense	Mingan moonwort	None	None	–	2B.2
Botrychium montanum	western goblin	None	None	–	2B.1
Cypripedium californicum	California lady's-slipper	None	None	–	4.2
Cypripedium fasciculatum	clustered lady's-slipper	None	None	–	4.2
Cypripedium montanum	mountain lady's-slipper	None	None	–	4.2
Piperia colemanii	Coleman's rein orchid	None	None	–	4.3
Castilleja rubicundula var. rubicundula	pink creamsacs	None	None	–	1B.2
Erythranthe filicifolia	fern-leaved monkeyflower	None	None	–	1B.2
Erythranthe glaucescens	shield-bracted monkeyflower	None	None	–	4.3
Erythranthe inconspicua	small-flowered monkeyflower	None	None	–	4.3
Penstemon heterodoxus var. shastensis	Shasta beardtongue	None	None	–	4.3
Penstemon personatus	closed-throated beardtongue	None	None	–	1B.2
Agrostis hendersonii	Henderson's bent grass	None	None	–	3.2
Imperata brevifolia	California satintail	None	None	–	2B.1
Orcuttia tenuis	slender Orcutt grass	Threatened	Endangered	–	1B.1

Scientific Name	Common Name	Federal Status	State Status	CDFW Status	CA Rare Plant Rank
Poa sierrae	Sierra blue grass	None	None	–	1B.3
Puccinellia simplex	California alkali grass	None	None	–	1B.2
Tuctoria greenei	Greene's tuctoria	Endangered	Rare	–	1B.1
Leptosiphon acicularis	bristly leptosiphon	None	None	–	4.2
Leptosiphon ambiguus	serpentine leptosiphon	None	None	–	4.2
Navarretia heterandra	Tehama navarretia	None	None	–	4.3
Eriogonum umbellatum var. ahartii	Ahart's buckwheat	None	None	–	1B.2
Polygonum bidwelliae	Bidwell's knotweed	None	None	–	4.3
Heteranthera dubia	water star-grass	None	None	–	2B.2
Stuckenia filiformis ssp. alpina	slender-leaved pondweed	None	None	–	2B.2
Aspidotis carlotta-halliae	Carlotta Hall's lace fern	None	None	–	4.2
Delphinium recurvatum	recurved larkspur	None	None	–	1B.2
Delphinium uliginosum	swamp larkspur	None	None	–	4.2
Frangula purshiana ssp. ultramafica	Caribou coffeeberry	None	None	–	1B.2
Rhamnus alnifolia	alder buckthorn	None	None	–	2B.2
Darlingtonia californica	California pitcherplant	None	None	–	4.2
Brodiaea sierrae	Sierra foothills brodiaea	None	None	–	4.3
Viola tomentosa	felt-leaved violet	None	None	–	4.2

Sources: California Natural Diversity Database BIOS Viewer Tool

Federal Status

Endangered: The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

Threatened: The classification provided to an animal or plant which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Proposed Endangered: The classification provided to an animal or plant that is proposed for federal listing as Endangered in the Federal Register under Section 4 of the Endangered Species Act.

Proposed Threatened: The classification provided to an animal or plant that is proposed for federal listing as Threatened in the Federal Register under Section 4 of the Endangered Species Act.

Candidate: The classification provided to an animal or plant that has been studied by the United States Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.

None: The plant or animal has no federal status.

Delisted: The plant or animal was previously listed as Endangered or Threatened, but is no longer listed on the Federal Endangered and Threatened species list.

CDFW Status

FP: Fully Protected: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction.

SSC: Species of Special Concern: To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

WL: Watch List: Species that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

CA Rare Plant Rank

1A: Plants presumed extinct in California and rare/extinct elsewhere

1B.1: Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California

1B.2: Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California

1B.3: Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California

2A: Plants presumed extirpated in California, but more common elsewhere

2B.1: Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California

2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California

2B.3: Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California

3.1: Plants about which we need more information; seriously threatened in California

3.2: Plants about which we need more information; fairly threatened in California

3.3: Plants about which we need more information; not very threatened in California

4.1: Plants of limited distribution; seriously threatened in California

4.2: Plants of limited distribution; fairly threatened in California

4.3: Plants of limited distribution; not very threatened in California

Appendix F Critical Facilities

Table F-1 Butte County Critical Facilities

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Biggs Elementary	School	At Risk Population Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Biggs High	School	At Risk Population Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Biggs Secondary Community Day	School	At Risk Population Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Richvale Elementary	School	At Risk Population Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Biggs FS	Fire	Essential Services Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Inside	Outside	Outside
Biggs Wastewater Treatment Plant	Wastewater Treatment Plant	Essential Services Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Railroads	Inside	Outside	Outside
City of Biggs Council Chambers	Public Assembly Point / Evacuation Center	Essential Services Facilities	City of Biggs	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Academy for Change	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Bidwell Junior High	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Blue Oak Charter	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Butte College - Chico Campus	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Butte County ROP	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
California State University, Chico	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Center for Alternative Learning	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Chapman Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Chico Country Day	School	At Risk Population Facilities	City of Chico	Zone AO	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Chico High	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Chico Junior High	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Citrus Avenue Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Emma Wilson Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Fair View High (Continuation)	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Hooker Oak Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Inspire School of Arts and Sciences	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Little Chico Creek Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	High	Highways	Outside	Outside	Outside
Loma Vista	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	–	Outside	Outside	Outside
Marigold Elementary	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	–	Outside	Outside	Outside
Marsh (Harry M.) Junior High	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	High	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
McManus (John A.) Elementary	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Neal Dow Elementary	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Oakdale	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Parkview Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Moderate	Highways	Outside	Outside	Outside
Pivot Charter School North Valley	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Pleasant Valley High	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Rosedale Elementary	School	At Risk Population Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Shasta Elementary	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Sherwood Montessori	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Sierra View Elementary	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Wildlflower Open Classroom	School	At Risk Population Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Addus Healthcare	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Advanced Eye Surgery Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Ampla Health Chico Dental	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Ampla Health Chico Medical Dental & Pediatrics	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Bright Star Health Care	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Butte County Sheriff	Law Enforcement	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Butte Home Health And Hospice	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Butte Home Health Hospice	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
California Park	Dam	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	High	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
California Highway Patrol	Law Enforcement	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
California Park Rehabilitation Hospital	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways	Outside	Outside	Outside
California State University Police Department	Law Enforcement	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Chico AAB	Fire	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	–	Outside	Outside	Outside
Chico Courtyard	Logistics Hub	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Chico Dialysis Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Chico Feminist Womens Health Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Chico Police Department	Law Enforcement	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Chico Substation	Radio Sites	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Chico Surgery Center Lp	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Chico Wastewater Treatment Plant	Wastewater Treatment Plant	Essential Services Facilities	City of Chico	Zone AO	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	–	Outside	Inside	Outside
Children's Health Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Enloe Medical Center - Cohasset	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Enloe Medical Center - Cohasset	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Enloe Medical Center - Cohasset D/P Aph	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Enloe Medical Center - Esplanade	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Enloe Medical Center - W. East Ave	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Enloe Medical Center Home Health Agency	Health Care	Essential Services Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	–	Outside	Outside	Outside
Enloe Medical Center Hospice	Health Care	Essential Services Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	–	Outside	Outside	Outside
Enloe Rehabilitation Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Home Health Care Management Inc.	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	–	Outside	Outside	Outside
Neighborhood Church	Public Assembly Point / Evacuation Center	Essential Services Facilities	City of Chico	Zone AE	Low to None	Potential Subsidence Area	Generally Moderate	Moderate	Highways	Outside	Outside	Outside
North Chico Fs	Fire	Essential Services Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Northern Valley Indian Health Inc.	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Northern Valley Indian Health Inc.	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Nova Developmental Centers - Arch Way House	Health Care	Essential Services Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	–	Outside	Outside	Outside
Nova Developmental Centers-Tom Polk House	Health Care	Essential Services Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Option Care	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Planned Parenthood Of The North Valley - Chico Ctr.	Health Care	Essential Services Facilities	City of Chico	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Ptl Pediatric Daycare	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	High	Highways	Outside	Outside	Outside
Rai - Ceres Ave - Chico	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	–	Outside	Outside	Outside
Riverside Convalescent Hospital	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Skyway Surgery Center Llc	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Low	High	Highways	Outside	Outside	Outside
South Chico Dialysis Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Low	Urban Unzoned	Highways	Outside	Outside	Outside
South Chico Fs	Fire	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
The Peg Taylor Center For Adult Day Health Care	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Therapeutic Solutions Pc	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Twin Oaks Post Acute Rehab	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Windsor Chico Care Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Windsor Chico Creek Care And Rehabilitation Center	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Women's Resource Clinic	Health Care	Essential Services Facilities	City of Chico	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Outside	Outside	Outside
Esperanza High (Continuation)	School	At Risk Population Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Gridley High	School	At Risk Population Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Highways and Railroads	Inside	Outside	Outside
Gridley Unified Community Day (7-12)	School	At Risk Population Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Mckinley Elementary	School	At Risk Population Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Sycamore Middle	School	At Risk Population Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Wilson Elementary	School	At Risk Population Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Ampla Health Gridley Medical	Health Care	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Butte County Fairgrounds	Public Assembly Point / Evacuation Center	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Butte County Sheriff	Law Enforcement	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Chuk Ndulue Medical Office	Health Care	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Gridley FS	Fire	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Gridley Police Department	Law Enforcement	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Gridley Treatment Plant	Wastewater Treatment Plant	Essential Services Facilities	City of Gridley	Zone A	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	–	Inside	Inside	Outside
Orchard Hospital	Health Care	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Orchard Hospital D/P Snf	Health Care	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Orchard Hospital Medical Specialty Center	Health Care	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
West Gridley Volunteer Station 76	Fire	Essential Services Facilities	City of Gridley	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Bird Street Elementary	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Butte County Special Education	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Central Middle	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Heritage Community Day	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways	Inside	Outside	Outside
Ishi Hills Middle	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways	Outside	Outside	Outside
Learning Community Charter	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Nelson Avenue Middle	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways and Railroads	Inside	Outside	Outside
Oroville Adult Education Career and Technical Center	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Oroville Gymnastics Academy and Pre-School	School	At Risk Population Facilities	City of Oroville	Zone X (shaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Oroville High	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Oroville High Community Day	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Pioneer Community Day	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways	Inside	Outside	Outside
Plumas Avenue Elementary	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways	Inside	Outside	Outside
Prospect High (Continuation)	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Sierra Del Oro	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
St Thomas Elementary School	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Stanford Avenue Elementary	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways and Railroads	Inside	Outside	Outside
STREAM Charter	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Table Mountain	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Wyandotte Avenue Elementary	School	At Risk Population Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Ampla Health Oroville Medical & Dental	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
AT&T Communications Bank	Logistics Hub	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
BCSO	Radio Sites	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Butte County General Services	Logistics Hub	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Butte County IS Building	Logistics Hub	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Butte County Sheriff	Law Enforcement	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Butte ECC	Fire	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Butte UH	Fire	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
California Highway Patrol	Law Enforcement	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Country Crest Post Acute	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways	Outside	Outside	Outside
Del Oro	Emergency Animal Shelter	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Doc	DOC	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Eoc	Emergency Operation Center	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Family Medicine Practice	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside
Family Practice Associates	Health Care	Essential Services Facilities	City of Oroville	Zone X (shaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Feather River Tribal Health Inc.	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Golden Valley Home Health	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Nelson Avenue School	Public Assembly Point / Evacuation Center	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Orange Tree Apartments Semi Assisted Senior Apartments	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Oroville City Hall	Logistics Hub	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Oroville Corp Yard / Public Works	Logistics Hub	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Oroville Dialysis Clinic	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways and Railroads	Inside	Outside	Outside
Oroville Family Practice	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside
Oroville FS	Fire	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Oroville Hospital	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways and Railroads	Inside	Outside	Outside
Oroville Hospital - Medical Clinic	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways and Railroads	Inside	Outside	Outside
Oroville Hospital Post-Acute Center	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways and Railroads	Inside	Outside	Outside
Oroville Hospital Primary Care Practice	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Oroville Pediatric Practice	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside
Oroville Police Department	Law Enforcement	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Oroville Women's Health	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside
Pediatric Practice Associates	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside
Penthouse	Radio Sites	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Premier Health Center	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Radio Shop	Radio Sites	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Outside	Outside
Rigoberto 0 Gutierrez MD	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	High	Highways and Railroads	Inside	Outside	Outside
S.C.O.R. Oroville Wastewater Treatment Plant	Wastewater Treatment Plant	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Moderate	Moderate	Highways and Railroads	Inside	Inside	Outside
Shadowbrook Post Acute	Health Care	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways and Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Southside Community Center	Public Assembly Point / Evacuation Center	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	High	Highways and Railroads	Outside	Outside	Outside
Sprint Communications Subterranean Vault	Logistics Hub	Essential Services Facilities	City of Oroville	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways and Railroads	Inside	Inside	Outside
Woodleaf Camp	Public Assembly Point / Evacuation Center	Essential Services Facilities	Outside of Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Achieve Charter School of Paradise Inc.	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Children's Community Charter	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Hometech Charter	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Honey Run Academy Secondary	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Adult	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Charter Middle	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Paradise eLearning Academy	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Elementary	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Intermediate	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Senior High	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Unified Special Education	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Ponderosa Elementary	School	At Risk Population Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
CMA Church	Public Assembly Point / Evacuation Center	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Eye Life Institute Ambulatory Surgery Center	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Feather River Home Health Agency	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Feather River Hospital	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Feather River Hospital Canyon View Clinic	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Feather River Hospital Family Health	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Feather River Hospital-Feather River Health Center	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Paradise Fire Department Station 81	Fire	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Fire Department Station 82	Fire	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise FS	Fire	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Paradise Hospice	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Paradise Hospice House	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Paradise Performing Arts Center	Public Assembly Point / Evacuation Center	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Police Department	Law Enforcement	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Paradise Post Acute	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Paradise Ridge Post-Acute	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Pine View Center	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
The Alpine Home	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
The Alpine Home II	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
The Alpine Home III	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
The Elgin Home	Health Care	Essential Services Facilities	Town of Paradise	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Bald Rock Community Day	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Bangor Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	–	Outside	Outside	Outside
Berry Creek Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Butte College	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways	Outside	Outside	Outside
Butte County Community School - LEAD	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Highways	Outside	Outside	Outside
Cedarwood Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Concow Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Durham Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Inside	Outside	Outside
Durham High	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Inside	Outside	Outside
Durham Intermediate	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Feather Falls Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Forest Ranch Charter	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Golden Feather Community Day	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Golden Hills Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Railroads	Outside	Outside	Outside
Helen M. Wilcox Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	High	Railroads	Outside	Outside	Outside
Honcut	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Moderate	Railroads	Outside	Outside	Outside
Ipakanni Early College Charter	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Las Plumas High	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Railroads	Outside	Outside	Outside
Manzanita Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Railroads	Inside	Outside	Outside
Nord Country	School	At Risk Population Facilities	Unincorporated Butte County	Zone A	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Outside	Inside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Oakdale Heights Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Railroads	Outside	Outside	Outside
Ophir Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Palermo	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Palermo Special Education Preschool	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Palermo Union Community Day (5-8)	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Palermo Union Community Day (K-7)	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Pine Ridge	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Poplar Avenue Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways	Inside	Outside	Outside
Ridgeview High (Continuation)	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Sierra Avenue Elementary	School	At Risk Population Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Highways	Inside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
A L Chaffin 346	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	High	Railroads	Outside	Outside	Outside
Ampla Health Magalia Medical Clinic	Health Care	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Bald Mountain	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Bald Mountain LO	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
BANGOR	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	–	Outside	Outside	Outside
Bangor Community Hall	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	–	Outside	Outside	Outside
Bangor FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	–	Outside	Outside	Outside
Berry Creek Elementary School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Berry Creek Volunteer Station 61	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Bidwell Bar Canyon Saddle Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	High	–	Generally Low	Moderate	Highways	Outside	Outside	Outside
Bloomer Hill	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Bloomer Hill COM/LO	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Brush Creek Volunteer Station 60	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High		Outside	Outside	Outside
Butte College	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways	Outside	Outside	Outside
Butte College Volunteer Station 25	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Moderate	Highways	Outside	Outside	Outside
Butte County Sheriff	Law Enforcement	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Butte Fire Center	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Moderate	–	Outside	Outside	Outside
Butte Meadows FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone A	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Butte Meadows Volunteer Station 10	Fire	Essential Services Facilities	Unincorporated Butte County	Zone A	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Camelot	Emergency Animal Shelter	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to None	–	Generally Low	Moderate	Highways	Outside	Outside	Outside
Camelot Meadow	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Camp Lassen - Boy Scout Camp	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Cannon Ranch 345	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Centerville Estates	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Inside	Outside
Centerville Volunteer Station 27	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	High	–	Outside	Outside	Outside
Cherokee Volunteer Station 67	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	Highways and Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Church of the Nazarene	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Railroads	Outside	Outside	Outside
Cohasset FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Cohasset School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Concow Lake Volunteer Station 38	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Concow School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Concow Volunteer Station 37	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Crain Park	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Dam 149	Dam	Essential Services Facilities	Unincorporated Butte County	Zone AE	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Dam 194	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to None	Potential Subsidence Area	Generally Low	Moderate	Highways	Outside	Outside	Outside
Desabla Forebay 97-005 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate		Generally Low	Very High		Outside	Outside	Outside
Durham FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Earthworm Soil Factory	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Highways	Outside	Outside	Outside
Feather Falls Casino	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Moderate	Railroads	Outside	Outside	Outside
Feather Falls Elementary School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Feather Falls FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Feather Falls Volunteer Station 52	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Feather River Hatchery 1-047 Dam / Fish Barrier	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to None	–	Generally Low	Moderate	Highways and Railroads	Inside	Inside	Outside
Forbestown Community Hall	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Forbestown Diversion 63-007 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
FOREST RANCH	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Forest Ranch Charter School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Forest Ranch FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Forest Ranch Volunteer Station 24	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Gold Country Casino	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Golden Feather Seventh Day Adventist Church	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High		Generally Low	Very High	Highways	Outside	Outside	Outside
Gridley Volunteer Station 74	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (shaded)	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Highways and Railroads	Inside	Outside	Outside
Grizzly Creek 349 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Grub Flat 344-002 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Harts Mill FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Honey Run Bridge Park	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone AE Floodway	Moderate	–	Generally Moderate	High	–	Outside	Inside	Outside
Honey run Volunteer Station 26	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Moderate	High	–	Inside	Inside	Outside
Jarbo Gap FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Kelley Ridge FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Moderate	Highways	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Kunkle 97-007	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Significant Dam Inundation Area
Lake Madrone	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Lake Madrone 1004	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Lake Wyandotte 63	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to Moderate	–	Generally Low	High	–	Outside	Inside	Outside
Las Plumas High School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Urban Unzoned	Railroads	Outside	Outside	Outside
Littlefield 1341 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	Railroads	Outside	Outside	Outside
Loafer Creek Day Use/Picnic Area	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Lost Creek 63-002 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Magalia 73	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Magalia Community Church	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Magalia Pines Baptist Church	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Magalia ST 33	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Magalia-Pines Family Practice Medical Clinic	Health Care	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Masonic	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Highways	Outside	Outside	Outside
Merry Mountain Village	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Miners Ranch 63-009 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Inside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Nord FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Non-Wildland/Non-Urban	Highways	Outside	Outside	Outside
Nova Developmental Centers-Kelsey House	Health Care	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	Potential Subsidence Area	Generally Moderate	Moderate	–	Outside	Outside	Outside
Oaks	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Old Mill Site / Stirling City	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Oroville 1-048	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	High	–	Generally Low	Moderate	–	Outside	Outside	Outside
Oroville Cemetary	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Low	Moderate	Railroads	Outside	Outside	Outside
Palermo Elementary School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Palermo FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Palermo Middle School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Outside	Outside	Outside
Paradise 73-002 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Moderate	–	Outside	Outside	Outside
Parish Camp Saddle Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Moderate	–	Generally Low	Moderate	Railroads	Outside	Outside	Outside
Philbrook 97-008	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Significant Dam Inundation Area
Pine Ridge School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Platt Mountain LO	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Platte Mountain	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	High	Highways	Outside	Outside	Outside
Poe Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate to High	–	Generally Low	Very High	Highways and Railroads	Outside	Outside	Significant Dam Inundation Area

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Ponderosa Diversion Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	High	–	Generally Low	Moderate		Outside	Outside	Outside
Richvale FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to None	–	Generally Moderate	Urban Unzoned	Railroads	Inside	Outside	Outside
Richvale Wastewater Treatment Plant	Wastewater Treatment Plant	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to None	–	Generally Moderate	Non-Wildland/Non-Urban	Railroads	Inside	Outside	Outside
Robinson Mill FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Round Valley 97-009 Dam (Snag Lake)	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Sawmill Peak	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Sawmill Peak LO	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Sly Creek 63-006 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Non-Wildland/Non-Urban	–	Outside	Outside	Outside
Spring Valley Elementary School	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Moderate	–	Generally Low	High	Highways and Railroads	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Stirling City FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Stirling City Volunteer Station 12	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Sunset Hill	Radio Sites	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Sunset Hill LO	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
The Pines Yankee Hill Hardware Store	Public Assembly Point / Evacuation Center	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	Highways	Outside	Outside	Outside
Thermalito Afterbay 1-055 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to None	–	Generally Low	Non-Wildland/Non-Urban	–	Inside	Outside	Outside
Thermalito Diversion 1-049 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Moderate	–	Generally Low	Moderate	Railroads	Inside	Inside	Outside
Thermalito Forebay 1-054 Dam	Dam	Essential Services Facilities	Unincorporated Butte County	Zone A	Low to None	–	Generally Low	Moderate	–	Inside	Outside	Outside
Upper Ridge FS	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside

Name	Type	Critical Facility Type	Jurisdiction	Flood Zone	Landslide Potential	Subsidence Potential	Liquefaction Potential	FHSZ	Hazmat Route	Extremely High Hazard Dam Inundation	High Hazard Dam Inundation	High Hazard Dam Inundation
Upper Ridge Volunteer Station 31	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Very High	–	Outside	Outside	Outside
Wilenor (Concow) 67	Dam	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	High	–	Generally Low	Very High	–	Outside	Outside	Outside
Wyandotte Volunter Station 66	Fire	Essential Services Facilities	Unincorporated Butte County	Zone X (unshaded)	Low to Moderate	–	Generally Low	Moderate	–	Outside	Outside	Outside

Source: Butte County GIS

Appendix G Watershed Analysis by Flood Zone

Analysis from Section 4.3.7 of the Base Plan for flood values by watershed is shown in the tables below.

Butte County Planning Area Analysis

Table G-1 Butte County Planning Area – Count and Value of Parcels by Flood Zone by Watershed, Jurisdiction, and Property Use

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
City of Biggs							
Dry Creek / Cherokee Canal Watershed							
0.2% Annual Chance Flood Hazard**							
Agricultural	5	2	$105,709	$87,201	$810	$87,201	$280,921
Commercial	36	24	$717,577	$3,616,969	$109,175	$3,616,969	$8,060,690
Industrial	14	8	$1,727,064	$12,707,659	$10,439,743	$19,061,489	$43,935,955
Residential	609	560	$20,600,978	$47,204,526	$6,630	$23,602,263	$91,414,397
Unknown	18	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	682	594	$23,151,328	$63,616,355	$10,556,358	$46,367,922	$143,691,963
Dry Creek / Cherokee Canal Watershed Total	**682**	**594**	**$23,151,328**	**$63,616,355**	**$10,556,358**	**$46,367,922**	**$143,691,963**
Feather River / Lower Honcut Creek Watershed							
0.2% Annual Chance Flood Hazard**							
Agricultural	1	1	$45,403	$63,881	$0	$63,881	$173,165
Commercial	0	0	$0	$0	$0	$0	$0
Industrial	0	0	$0	$0	$0	$0	$0
Residential	82	79	$2,825,582	$5,508,630	$0	$2,754,315	$11,088,527
Unknown	1	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**84**	**80**	**$2,870,985**	**$5,572,511**	**$0**	**$2,818,196**	**$11,261,692**

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Feather River / Lower Honcut Creek Watershed Total	**84**	**80**	**$2,870,985**	**$5,572,511**	**$0**	**$2,818,196**	**$11,261,692**
City of Biggs Total	**766**	**674**	**$26,022,313**	**$69,188,866**	**$10,556,358**	**$49,186,118**	**$154,953,655**
City of Chico							
Big Chico Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	3	0	$0	$0	$0	$0	$0
Commercial	4	3	$447,666	$1,454,991	$0	$1,454,991	$3,357,648
Industrial	2	0	$264,935	$0	$0	$0	$264,935
Residential	45	36	$3,967,620	$5,807,336	$0	$2,903,668	$12,678,624
Unknown	14	1	$69,781	$90,169	$0	$0	$159,950
1% Annual Chance Flood Hazard Total	**68**	**40**	**$4,750,002**	**$7,352,496**	$0	**$4,358,659**	**$16,461,157**
0.2% Annual Chance Flood Hazard**							
Agricultural	3	0	$208,786	$0	$0	$0	$208,786
Commercial	335	284	$96,319,981	$200,954,930	$3,204,354	$200,954,930	$501,434,195
Industrial	11	8	$1,999,545	$3,231,029	$0	$4,846,544	$10,077,118
Residential	8,178	7,862	$820,719,720	$1,374,206,498	$40,948	$687,103,249	$2,882,070,415
Unknown	94	2	$339,025	$167,826	$0	$0	$506,851
0.2% Annual Chance Flood Hazard Total	**8,621**	**8,156**	**$919,587,057**	**$1,578,560,283**	**$3,245,302**	**$892,904,723**	**$3,394,297,365**
Other Areas							
Agricultural	14	4	$474,923	$271,477	$57,958	$271,477	$1,075,835
Commercial	986	872	$228,855,319	$756,882,027	$33,803,115	$756,882,027	$1,776,422,488
Industrial	137	99	$20,363,503	$60,935,850	$925,850	$91,403,775	$173,628,978
Residential	8,811	8,547	$933,674,984	$1,740,139,376	$139,532	$870,069,688	$3,544,023,580
Unknown	155	2	$185,540	$304,286	$0	$0	$489,826
Other Areas Total	**10,103**	**9,524**	**$1,183,554,269**	**$2,558,533,016**	**$34,926,455**	**$1,718,626,967**	**$5,495,640,707**
Big Chico Creek Watershed Total	**18,792**	**17,720**	**$2,107,891,328**	**$4,144,445,795**	**$38,171,757**	**$2,615,890,349**	**$8,906,399,229**

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Little Chico Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	114	92	$23,287,080	$31,119,535	$773,413	$31,119,535	$86,299,563
Industrial	45	36	$7,423,825	$12,723,086	$2,260,267	$19,084,629	$41,491,807
Residential	831	786	$82,812,771	$167,315,826	$610	$83,657,913	$333,787,120
Unknown	36	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**1,026**	**914**	**$113,523,676**	**$211,158,447**	**$3,034,290**	**$133,862,077**	**$461,578,490**
0.2% Annual Chance Flood Hazard**							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	118	94	$15,858,714	$27,298,526	$249,581	$27,298,526	$70,705,347
Industrial	6	6	$540,625	$1,254,987	$19,800	$1,882,481	$3,697,893
Residential	639	617	$54,205,542	$81,208,189	$0	$40,604,095	$176,017,826
Unknown	8	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**771**	**717**	**$70,604,881**	**$109,761,702**	**$269,381**	**$69,785,101**	**$250,421,065**
Other Areas							
Agricultural	3	0	$0	$0	$0	$0	$0
Commercial	534	391	$242,181,932	$429,137,357	$8,686,669	$429,137,357	$1,109,143,315
Industrial	161	139	$45,698,774	$97,627,402	$4,256,520	$146,441,103	$294,023,799
Residential	4,978	4,693	$557,441,310	$986,644,253	$6,642	$493,322,127	$2,037,414,332
Unknown	102	1	$273,807	$476,194	$0	$0	$750,001
Other Areas Total	5,778	5,224	$845,595,823	$1,513,885,206	$12,949,831	$1,068,900,587	$3,441,331,447
Little Chico Creek Watershed Total	**7,575**	**6,855**	**$1,029,724,380**	**$1,834,805,355**	**$16,253,502**	**$1,272,547,765**	**$4,153,331,002**
City of Chico Total	**26,367**	**24,575**	**$3,137,615,708**	**$5,979,251,150**	**$54,425,259**	**$3,888,438,113**	**$13,059,730,230**
City of Gridley							
Feather River / Lower Honcut Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	0	0	$0	$0	$0	$0	$0

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Industrial	0	0	$0	$0	$0	$0	$0
Residential	2	0	$0	$0	$0	$0	$0
Unknown	1	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**3**	**0**	**$0**	**$0**	**$0**	**$0**	**$0**
0.2% Annual Chance Flood Hazard**							
Agricultural	13	8	$1,886,899	$1,263,421	$178,906	$1,263,421	$4,592,647
Commercial	235	195	$21,841,994	$53,742,366	$2,655,679	$53,742,366	$131,982,405
Industrial	30	21	$4,169,504	$12,230,958	$2,549,750	$18,346,437	$37,296,649
Residential	2,106	1,977	$85,843,958	$223,065,119	$37,556	$111,532,560	$420,479,193
Unknown	64	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**2,448**	**2,201**	**$113,742,355**	**$290,301,864**	**$5,421,891**	**$184,884,784**	**$594,350,894**
Feather River / Lower Honcut Creek Watershed Total	**2,451**	**2,201**	**$113,742,355**	**$290,301,864**	**$5,421,891**	**$184,884,784**	**$594,350,894**
City of Gridley Total	**2,451**	**2,201**	**$113,742,355**	**$290,301,864**	**$5,421,891**	**$184,884,784**	**$594,350,894**
City of Oroville							
Feather River / Lower Honcut Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	1	0	$122,499	$0	$0	$0	$122,499
Commercial	33	22	$4,445,872	$9,112,008	$358,940	$9,112,008	$23,028,828
Industrial	3	0	$0	$0	$0	$0	$0
Residential	47	29	$2,016,302	$5,950,576	$0	$2,975,288	$10,942,166
Unknown	10	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**94**	**51**	**$6,584,673**	**$15,062,584**	**$358,940**	**$12,087,296**	**$34,093,493**
0.2% Annual Chance Flood Hazard**							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	156	96	$24,189,383	$52,163,843	$2,002,854	$52,163,843	$130,519,923
Industrial	63	17	$8,777,399	$6,715,749	$49,380	$10,073,624	$25,616,152
Residential	370	338	$10,406,825	$31,974,354	$0	$15,987,177	$58,368,356
Unknown	15	1	$45,900	$185,640	$0	$0	$231,540

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
0.2% Annual Chance Flood Hazard Total	**604**	**452**	**$43,419,507**	**$91,039,586**	**$2,052,234**	**$78,224,644**	**$214,735,971**
Other Areas							
Agricultural	8	0	$1,168,577	$0	$7,947	$0	$1,176,524
Commercial	857	587	$81,664,903	$283,230,885	$16,646,012	$283,230,885	$664,772,685
Industrial	160	54	$17,225,276	$33,225,322	$43,730,050	$49,837,983	$144,018,631
Residential	5,287	4,359	$172,636,063	$466,646,116	$7,000	$233,323,058	$872,612,237
Unknown	132	1	$18,618	$128,626	$0	$0	$147,244
Other Areas Total	**6,444**	**5,001**	**$272,713,437**	**$783,230,949**	**$60,391,009**	**$566,391,926**	**$1,682,727,321**
Feather River / Lower Honcut Creek Watershed Total	**7,142**	**5,504**	**$322,717,617**	**$889,333,119**	**$62,802,183**	**$656,703,866**	**$1,931,556,785**
City of Oroville Total	**7,142**	**5,504**	**$322,717,617**	**$889,333,119**	**$62,802,183**	**$656,703,866**	**$1,931,556,785**
Town of Paradise							
Butte Creek Watershed							
Other Areas							
Agricultural	4	0	$130,248	$0	$11,631	$0	$141,879
Commercial	527	432	$66,211,456	$168,834,036	$3,405,429	$168,834,036	$407,284,957
Industrial	8	7	$642,978	$753,532	$0	$1,130,298	$2,526,808
Residential	5,509	5,151	$341,688,073	$650,553,301	$138,248	$325,276,651	$1,317,656,273
Unknown	79	4	$697,572	$1,517,195	$0	$0	$2,214,767
Other Areas Total	6,127	5,594	$409,370,327	$821,658,064	$3,555,308	$495,240,985	$1,729,824,684
Butte Creek Watershed Total	**6,127**	**5,594**	**$409,370,327**	**$821,658,064**	**$3,555,308**	**$495,240,985**	**$1,729,824,684**
Dry Creek / Cherokee Canal Watershed							
Other Areas							
Agricultural	1	1	$31,603	$47,386	$10,346	$47,386	$136,721
Commercial	176	150	$31,626,583	$71,220,935	$804,520	$71,220,935	$174,872,973
Industrial	9	8	$1,896,598	$3,073,268	$165,000	$4,609,902	$9,744,768
Residential	4,180	3,931	$262,940,904	$472,707,773	$58,270	$236,353,887	$972,060,834
Unknown	22	0	$155,637	$0	$0	$0	$155,637

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Other Areas Total	**4,388**	**4,090**	**$296,651,325**	**$547,049,362**	**$1,038,136**	**$312,232,110**	**$1,156,970,933**
Dry Creek / Cherokee Canal Watershed Total	**4,388**	**4,090**	**$296,651,325**	**$547,049,362**	**$1,038,136**	**$312,232,110**	**$1,156,970,933**
Lake Oroville / Upper Feather River Watershed							
Other Areas							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	17	13	$4,842,795	$76,455,399	$9,900,310	$76,455,399	$167,653,903
Industrial	1	1	$59,233	$41,353	$0	$62,030	$162,616
Residential	964	904	$71,720,604	$155,365,028	$0	$77,682,514	$304,768,146
Unknown	3	0	$0	$0	$0	$0	$0
Other Areas Total	**985**	**918**	**$76,622,632**	**$231,861,780**	**$9,900,310**	**$154,199,943**	**$472,584,665**
Lake Oroville / Upper Feather River Watershed Total	**985**	**918**	**$76,622,632**	**$231,861,780**	**$9,900,310**	**$154,199,943**	**$472,584,665**
Town of Paradise Total	**11,500**	**10,602**	**$782,644,284**	**$1,600,569,206**	**$14,493,754**	**$961,673,037**	**$3,359,380,281**
Unincorporated Butte County							
Big Chico Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	119	105	$39,205,392	$16,844,566	$20,742,971	$16,844,566	$93,637,495
Commercial	2	2	$247,945	$496,455		$496,455	$1,240,855
Industrial	5	2	$510,939	$169,694	$360,800	$254,541	$1,295,974
Residential	272	240	$27,251,588	$50,605,691	$358,945	$25,302,846	$103,519,070
Unknown	22	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**420**	**349**	**$67,215,864**	**$68,116,406**	**$21,462,716**	**$42,898,408**	**$199,693,394**
0.2% Annual Chance Flood Hazard**							
Agricultural	27	22	$5,012,315	$1,777,372	$2,677,275	$1,777,372	$11,244,334
Commercial	16	16	$3,366,209	$7,738,284	$218,370	$7,738,284	$19,061,147
Industrial	1	0	$113,442	$0	$0	$0	$113,442
Residential	798	772	$79,512,565	$130,758,546	$339,235	$65,379,273	$275,989,619

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Unknown	7	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**849**	**810**	**$88,004,531**	**$140,274,202**	**$3,234,880**	**$74,894,929**	**$306,408,542**
Other Areas							
Agricultural	442	271	$92,268,804	$44,307,821	$33,886,934	$44,307,821	$214,771,380
Commercial	104	91	$20,073,621	$46,167,110	$1,126,019	$46,167,110	$113,533,860
Industrial	100	96	$12,605,068	$43,112,172	$1,441,588	$64,668,258	$121,827,086
Residential	3,826	3,381	$413,839,047	$762,515,049	$1,268,412	$381,257,525	$1,558,880,033
Unknown	60	0	$10,127	$0	$0	$0	$10,127
Other Areas Total	**4,532**	**3,839**	**$538,796,667**	**$896,102,152**	**$37,722,953**	**$536,400,714**	**$2,009,022,486**
Big Chico Creek Watershed Total	**5,801**	**4,998**	**$694,017,062**	**$1,104,492,760**	**$62,420,549**	**$654,194,050**	**$2,515,124,421**
Butte Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	577	287	$172,751,535	$48,023,842	$31,403,239	$48,023,842	$300,202,458
Commercial	11	8	$1,461,846	$2,753,894	$399,020	$2,753,894	$7,368,654
Industrial	19	15	$4,104,742	$21,782,978	$4,321,550	$32,674,467	$62,883,737
Residential	1,042	905	$121,182,527	$184,607,278	$1,127,608	$92,303,639	$399,221,052
Unknown	48	1	$302,068	$144,046	$25,040		$471,154
1% Annual Chance Flood Hazard Total	**1,697**	**1,216**	**$299,802,718**	**$257,312,038**	**$37,276,457**	**$175,755,842**	**$770,147,055**
Other Areas							
Agricultural	594	254	$106,902,297	$34,995,995	$16,895,689	$34,995,995	$193,789,976
Commercial	229	153	$22,301,387	$43,286,808	$2,632,926	$43,286,808	$111,507,929
Industrial	38	27	$12,182,783	$44,567,655	$3,270,500	$66,851,483	$126,872,421
Residential	7,976	6,988	$447,393,513	$807,770,652	$560,891	$403,885,326	$1,659,610,382
Unknown	213	2	$436,664	$220,918	$50,900	$0	$708,482
Other Areas Total	9,050	7,424	$589,216,644	$930,842,028	$23,410,906	$549,019,612	$2,092,489,190
Butte Creek Watershed Total	**10,747**	**8,640**	**$889,019,362**	**$1,188,154,066**	**$60,687,363**	**$724,775,454**	**$2,862,636,245**
Dry Creek / Cherokee Canal Watershed							
1% Annual Chance Flood Hazard							

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Agricultural	208	65	$57,096,642	$7,663,777	$2,273,182	$7,663,777	$74,697,378
Commercial	2	2	$253,526	$1,065,890	$3,300	$1,065,890	$2,388,606
Industrial	1	1	$667,196	$11,503,828		$17,255,742	$29,426,766
Residential	49	28	$2,998,376	$4,084,160	$14,941	$2,042,080	$9,139,557
Unknown	26	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**286**	**96**	**$61,015,740**	**$24,317,655**	**$2,291,423**	**$28,027,489**	**$115,652,307**
0.2% Annual Chance Flood Hazard**							
Agricultural	205	68	$64,008,722	$6,130,807	$852,099	$6,130,807	$77,122,435
Commercial	1	0	$4,298	$0	$0	$0	$4,298
Industrial	9	8	$735,160	$12,105,597	$3,900,600	$18,158,396	$34,899,753
Residential	85	66	$7,711,990	$10,639,651	$36,860	$5,319,826	$23,708,327
Unknown	87	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	387	142	$72,460,170	$28,876,055	$4,789,559	$29,609,028	$135,734,812
Other Areas							
Agricultural	384	110	$50,658,789	$13,366,151	$2,335,687	$13,366,151	$79,726,778
Commercial	22	17	$2,726,275	$6,424,110	$518,330	$6,424,110	$16,092,825
Industrial	2	2	$442,597	$660,653	$0	$990,980	$2,094,230
Residential	652	446	$57,177,452	$102,093,681	$90,675	$51,046,841	$210,408,649
Unknown	60	1	$226,438	$87,728	$0	$0	$314,166
Other Areas Total	1,120	576	$111,231,551	$122,632,323	$2,944,692	$71,828,081	$308,636,647
Dry Creek / Cherokee Canal Watershed Total	**1,793**	**814**	**$244,707,461**	**$175,826,033**	**$10,025,674**	**$129,464,598**	**$560,023,766**
Feather River / Lower Honcut Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	284	211	$78,988,492	$24,958,235	$26,573,917	$24,958,235	$155,478,879
Commercial	51	27	$3,615,741	$4,782,195	$271,700	$4,782,195	$13,451,831
Industrial	32	14	$1,788,027	$4,080,449	$1,294,298	$6,120,674	$13,283,448
Residential	614	460	$31,159,589	$39,820,269	$553,933	$19,910,135	$91,443,926
Unknown	165	1	$853,714	$187,080	$436,443	$0	$1,477,237

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
1% Annual Chance Flood Hazard Total	**1,146**	**713**	**$116,405,563**	**$73,828,228**	**$29,130,291**	**$55,771,238**	**$275,135,320**
0.2% Annual Chance Flood Hazard**							
Agricultural	554	399	$103,915,757	$47,966,645	$33,956,224	$47,966,645	$233,805,271
Commercial	24	20	$3,477,963	$12,673,806	$973,040	$12,673,806	$29,798,615
Industrial	9	9	$848,613	$6,314,630	$1,173,120	$9,471,945	$17,808,308
Residential	1,377	1,277	$88,560,637	$161,249,852	$2,040,711	$80,624,926	$332,476,126
Unknown	78	0	$12,546	$0	$0	$0	$12,546
0.2% Annual Chance Flood Hazard Total	**2,042**	**1,705**	**$196,815,516**	**$228,204,933**	**$38,143,095**	**$150,737,322**	**$613,900,866**
Other Areas							
Agricultural	514	201	$67,004,720	$19,826,965	$3,753,941	$19,826,965	$110,412,591
Commercial	222	169	$21,335,240	$60,629,281	$771,668	$60,629,281	$143,365,470
Industrial	41	19	$5,354,008	$4,181,845	$109,800	$6,272,768	$15,918,421
Residential	12,222	9,805	$589,635,494	$916,062,076	$722,814	$458,031,038	$1,964,451,422
Unknown	206	5	$566,132	$683,718	$0	$0	$1,249,850
Other Areas Total	**13,205**	**10,199**	**$683,895,594**	**$1,001,383,885**	**$5,358,223**	**$544,760,052**	**$2,235,397,754**
Feather River / Lower Honcut Creek Watershed Total	**16,393**	**12,617**	**$997,116,673**	**$1,303,417,046**	**$72,631,609**	**$751,268,612**	**$3,124,433,940**
Lake Oroville / Upper Feather River Watershed							
1% Annual Chance Flood Hazard							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	2	0	$0	$0	$0	$0	$0
Industrial	1	0	$0	$0	$0	$0	$0
Residential	29	8	$324,073	$431,020	$0	$215,510	$970,603
Unknown	36	0	$2,720	$0	$0	$0	$2,720
1% Annual Chance Flood Hazard Total	**68**	**8**	**$326,793**	**$431,020**	**$0**	**$215,510**	**$973,323**
Other Areas							
Agricultural	557	43	$25,259,401	$3,136,284	$451,774	$3,136,284	$31,983,743
Commercial	75	58	$7,182,853	$16,676,744	$212,221	$16,676,744	$40,748,562
Industrial	2	0	$5,918	$0	$0	$0	$5,918

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Residential	7,165	3,868	$305,048,971	$332,331,956	$107,369	$166,165,978	$803,654,274
Unknown	462	2	$385,960	$51,284	$0	$0	$437,244
Other Areas Total	8,261	3,971	$337,883,103	$352,196,268	$771,364	$185,979,006	$876,829,741
Lake Oroville / Upper Feather River Watershed Total	**8,329**	**3,979**	**$338,209,896**	**$352,627,288**	**$771,364**	**$186,194,516**	**$877,803,064**
Little Chico Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	181	140	$60,153,328	$25,081,841	$23,786,059	$25,081,841	$134,103,069
Commercial	14	10	$3,599,106	$4,732,037	$22,020	$4,732,037	$13,085,200
Industrial	12	10	$2,077,285	$3,857,855	$5,133,304	$5,786,783	$16,855,227
Residential	477	446	$41,347,063	$61,641,943	$308,263	$30,820,972	$134,118,241
Unknown	11	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**695**	**606**	**$107,176,782**	**$95,313,676**	**$29,249,646**	**$66,421,632**	**$298,161,736**
0.2% Annual Chance Flood Hazard**							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	0	0	$0	$0	$0	$0	$0
Industrial	0	0	$0	$0	$0	$0	$0
Residential	11	11	$1,682,071	$3,529,785	$0	$1,764,893	$6,976,749
Unknown	0	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**11**	**11**	**$1,682,071**	**$3,529,785**	**$0**	**$1,764,893**	**$6,976,749**
Other Areas							
Agricultural	390	319	$107,569,010	$54,426,255	$56,270,778	$54,426,255	$272,692,298
Commercial	45	31	$5,599,362	$12,956,962	$222,550	$12,956,962	$31,735,836
Industrial	37	33	$10,172,891	$33,933,497	$893,690	$50,900,246	$95,900,324
Residential	1,905	1,640	$163,449,864	$254,806,041	$1,170,581	$127,403,021	$546,829,507
Unknown	31	1	$110,105	$140,482	$0	$0	$250,587
Other Areas Total	2,408	2,024	$286,901,232	$356,263,237	$58,557,599	$245,686,483	$947,408,551

Jurisdiction/ Watershed/ Flood Zone/ Property Use	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Little Chico Creek Watershed Total	**3,114**	**2,641**	**$395,760,085**	**$455,106,698**	**$87,807,245**	**$313,873,008**	**$1,252,547,036**
Pine Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	97	79	$51,397,236	$22,177,281	$18,690,222	$22,177,281	$114,442,020
Commercial	4	3	$402,319	$150,871	$0	$150,871	$704,061
Industrial	0	0	$0	$0	$0	$0	$0
Residential	15	7	$571,589	$783,620	$0	$391,810	$1,747,019
Unknown	5	1	$153,053	$136,427	$198,537	$0	$488,017
1% Annual Chance Flood Hazard Total	**121**	**90**	**$52,524,197**	**$23,248,199**	**$18,888,759**	**$22,719,962**	**$117,381,117**
Other Areas							
Agricultural	106	75	$32,735,033	$22,282,521	$14,854,404	$22,282,521	$92,154,479
Commercial	2	1	$151,975	$269,477	$0	$269,477	$690,929
Industrial	0	0	$0	$0	$0	$0	$0
Residential	26	23	$2,989,183	$4,628,027	$9,520	$2,314,014	$9,940,744
Unknown	2	0	$0	$0	$0	$0	$0
Other Areas Total	**136**	**99**	**$35,876,191**	**$27,180,025**	**$14,863,924**	**$24,866,012**	**$102,786,152**
Pine Creek Watershed Total	**257**	**189**	**$88,400,388**	**$50,428,224**	**$33,752,683**	**$47,585,974**	**$220,167,269**
Unincorporated Butte County Total	**46,434**	**33,878**	**$3,647,230,927**	**$4,630,052,115**	**$328,096,487**	**$2,807,356,210**	**$11,412,735,739**
Grand Total	**94,660**	**77,434**	**$8,029,973,204**	**$13,458,696,320**	**$475,795,932**	**$8,548,242,126**	**$30,512,707,582**

Source: FEMA 1/6/2011 DFIRM, Butte County 3/28/2019 Parcel/Assessor's Data

*With respect to improve parcels within the floodplain, the actual structures on the parcels may not be located within the actual flood zone, may be elevated and or otherwise outside of the identified flood zone

**This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood also includes all parcels in the 1% annual chance flood zone.

Unincorporated Butte County Analysis

Additional analysis was performed in unincorporated Butte County to show values at risk by watershed. All values are post-fire. Three tables are shown below:

- Table G-2 shows total parcel counts and values in the unincorporated County aggregated by watershed.
- Table G-3 shows total parcel counts and values broken out by watershed and DFIRM flood zone for the unincorporated County.
- Table G-4 breaks down Table G-3 further, and shows total parcel counts and values broken out by watershed, DFIRM flood zone, and property use type for the unincorporated County.

Table G-2 Unincorporated Butte County –Count and Value of Parcels by Watershed

Watershed	Total Parcel Count	Improved Parcel Count	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Big Chico Creek Watershed	5,827	4,995	$690,923,012	$1,102,803,953	$61,623,645	$652,937,048	$2,488,924,829
Butte Creek Watershed	10,752	8,637	$883,628,887	$1,125,646,503	$60,706,333	$691,995,375	$2,752,819,003
Dry Creek / Cherokee Canal Watershed	1,795	815	$245,011,250	$171,112,024	$10,016,874	$126,798,901	$558,477,865
Feather River / Lower Honcut Creek Watershed	16,401	12,613	$995,451,709	$1,296,431,816	$71,664,655	$744,361,804	$3,073,715,850
Lake Oroville / Upper Feather River Watershed	8,328	3,976	$337,558,519	$340,350,285	$733,469	$179,957,002	$829,636,916
Little Chico Creek Watershed	3,115	2,642	$395,871,714	$455,088,122	$87,807,245	$313,863,720	$1,256,365,533
Pine Creek Watershed	257	189	$88,335,108	$50,428,224	$33,752,683	$47,585,974	$225,118,149
Unincorporated Butte County Total	**46,475**	**33,867**	**$3,636,780,199**	**$4,541,860,927**	**$326,304,904**	**$2,757,499,823**	**$11,185,058,144**

Source: Butte County GIS, Butte County 3/28/2019 Parcel/Assessor's Data

Table G-3 Unincorporated Butte County – Count and Value of Parcels in DFIRM Flood Zones by Watershed

Watershed / Flood Zone	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Big Chico Creek Watershed							
1% Annual Chance Flood Hazard	426	347	$65,549,325	$66,542,121	$20,478,932	$41,698,667	$195,791,828
0.2% Annual Chance Flood Hazard**	849	810	$88,004,531	$140,274,202	$3,234,880	$74,894,929	$302,371,408
Other Areas	4,552	3,838	$537,369,156	$895,987,630	$37,909,833	$536,343,453	$1,990,761,594

Watershed / Flood Zone	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Big Chico Creek Watershed Total	**5,827**	**4,995**	**$690,923,012**	**$1,102,803,953**	**$61,623,645**	**$652,937,048**	**$2,488,924,829**
Butte Creek Watershed							
1% Annual Chance Flood Hazard	1,698	1,216	$295,424,380	$254,380,998	$37,276,457	$173,741,871	$772,162,920
0.2% Annual Chance Flood Hazard**	0	0	$0	$0	$0	$0	$0
Other Areas	9,054	7,421	$588,204,507	$871,265,505	$23,429,876	$518,253,505	$1,980,656,084
Butte Creek Watershed Total	**10,752**	**8,637**	**$883,628,887**	**$1,125,646,503**	**$60,706,333**	**$691,995,375**	**$2,752,819,003**
Dry Creek / Cherokee Canal Watershed							
1% Annual Chance Flood Hazard	286	96	$61,015,740	$24,317,655	$2,291,423	$28,027,489	$117,186,931
0.2% Annual Chance Flood Hazard**	389	143	$72,763,959	$29,448,729	$4,789,559	$29,828,698	$140,693,156
Other Areas	1,120	576	$111,231,551	$117,345,640	$2,935,892	$68,942,714	$300,597,778
Dry Creek / Cherokee Canal Watershed Total	**1,795**	**815**	**$245,011,250**	**$171,112,024**	**$10,016,874**	**$126,798,901**	**$558,477,865**
Feather River / Lower Honcut Creek Watershed							
1% Annual Chance Flood Hazard	1,147	714	$117,522,023	$74,542,408	$29,130,291	$56,485,418	$284,544,466
0.2% Annual Chance Flood Hazard**	2,045	1,702	$194,418,968	$220,629,219	$37,165,415	$143,167,127	$610,254,735
Other Areas	13,209	10,197	$683,510,718	$1,001,260,189	$5,368,949	$544,709,260	$2,178,916,650
Feather River / Lower Honcut Creek Watershed Total	**16,401**	**12,613**	**$995,451,709**	**$1,296,431,816**	**$71,664,655**	**$744,361,804**	**$3,073,715,850**
Lake Oroville / Upper Feather River Watershed							

Watershed / Flood Zone	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
1% Annual Chance Flood Hazard	68	8	$326,793	$431,020	$0	$215,510	$973,323
0.2% Annual Chance Flood Hazard**	0	0	$0	$0	$0	$0	$0
Other Areas	8,260	3,968	$337,231,726	$339,919,265	$733,469	$179,741,492	$828,670,593
Lake Oroville / Upper Feather River Watershed Total	**8,328**	**3,976**	**$337,558,519**	**$340,350,285**	**$733,469**	**$179,957,002**	**$829,636,916**
Little Chico Creek Watershed							
1% Annual Chance Flood Hazard	695	606	$107,176,782	$95,313,676	$29,249,646	$66,421,632	$304,998,130
0.2% Annual Chance Flood Hazard**	11	11	$1,682,071	$3,529,785	$0	$1,764,893	$6,913,749
Other Areas	2,409	2,025	$287,012,861	$356,244,661	$58,557,599	$245,677,195	$944,453,654
Little Chico Creek Watershed Total	**3,115**	**2,642**	**$395,871,714**	**$455,088,122**	**$87,807,245**	**$313,863,720**	**$1,256,365,533**
Pine Creek Watershed							
1% Annual Chance Flood Hazard	121	90	$52,458,917	$23,248,199	$18,888,759	$22,719,962	$119,584,194
0.2% Annual Chance Flood Hazard**	0	0	$0	$0	$0	$0	$0
Other Areas	136	99	$35,876,191	$27,180,025	$14,863,924	$24,866,012	$105,533,955
Pine Creek Watershed Total	**257**	**189**	**$88,335,108**	**$50,428,224**	**$33,752,683**	**$47,585,974**	**$225,118,149**
Unincorporated Butte County Total	**46,475**	**33,867**	**$3,636,780,199**	**$4,541,860,927**	**$326,304,904**	**$2,757,499,823**	**$11,185,058,144**

Source: FEMA 1/6/2011 DFIRM, Butte County 3/28/2019 Parcel/Assessor's Data

*With respect to improve parcels within the floodplain, the actual structures on the parcels may not be located within the actual floodplain, may be elevated and or otherwise outside of the identified flood zone

**This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood also includes all parcels in the 1% annual chance flood zone.

Table G-4 Unincorporated Butte County – Count and Value of Parcels in DFIRM Flood Zones by Watershed and Property Use

Watershed / Flood Zone / Property Use /	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Big Chico Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	118	104	$37,980,203	$16,019,369	$19,759,187	$16,019,369	$91,941,068
Commercial	2	2	$247,945	$496,455	$0	$496,455	$1,240,855
Industrial	5	2	$510,939	$169,694	$360,800	$254,541	$1,303,114
Residential	271	239	$26,810,238	$49,856,603	$358,945	$24,928,302	$101,306,791
Unknown	30	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**426**	**347**	**$65,549,325**	**$66,542,121**	**$20,478,932**	**$41,698,667**	**$195,791,828**
0.2% Annual Chance Flood Hazard**							
Agricultural	27	22	$5,012,315	$1,777,372	$2,677,275	$1,777,372	$11,258,761
Commercial	16	16	$3,366,209	$7,738,284	$218,370	$7,738,284	$18,485,173
Industrial	1	0	$113,442	$0	$0	$0	$113,442
Residential	798	772	$79,512,565	$130,758,546	$339,235	$65,379,273	$272,514,032
Unknown	7	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**849**	**810**	**$88,004,531**	**$140,274,202**	**$3,234,880**	**$74,894,929**	**$302,371,408**
Other Areas							
Agricultural	442	271	$92,268,804	$44,307,821	$34,073,814	$44,307,821	$216,383,108
Commercial	104	91	$20,073,621	$46,167,110	$1,126,019	$46,167,110	$109,303,634
Industrial	100	96	$12,605,068	$43,112,172	$1,441,588	$64,668,258	$124,032,526
Residential	3,825	3,380	$412,411,536	$762,400,527	$1,268,412	$381,200,264	$1,541,032,199
Unknown	81	0	$10,127	$0	$0	$0	$10,127
Other Areas Total	**4,552**	**3,838**	**$537,369,156**	**$895,987,630**	**$37,909,833**	**$536,343,453**	**$1,990,761,594**
Big Chico Creek Watershed Total	**5,827**	**4,995**	**$690,923,012**	**$1,102,803,953**	**$61,623,645**	**$652,937,048**	**$2,488,924,829**
Butte Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	571	285	$167,997,119	$46,926,939	$31,403,239	$46,926,939	$305,684,103
Commercial	11	8	$1,461,846	$2,753,894	$399,020	$2,753,894	$7,660,058
Industrial	19	15	$4,104,742	$21,782,978	$4,321,550	$32,674,467	$65,198,547

Watershed / Flood Zone / Property Use /	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Residential	1,041	907	$121,558,288	$182,773,141	$1,127,608	$91,386,571	$393,130,568
Unknown	56	1	$302,385	$144,046	$25,040	$0	$489,644
1% Annual Chance Flood Hazard Total	**1,698**	**1,216**	**$295,424,380**	**$254,380,998**	**$37,276,457**	**$173,741,871**	**$772,162,920**
Other Areas							
Agricultural	591	252	$106,370,120	$34,628,216	$16,895,689	$34,628,216	$203,462,210
Commercial	229	153	$22,301,387	$41,700,026	$2,632,926	$41,700,026	$103,753,330
Industrial	38	27	$12,182,783	$44,567,090	$3,270,500	$66,850,635	$130,688,128
Residential	7,980	6,987	$446,913,553	$750,149,255	$579,861	$375,074,628	$1,541,097,464
Unknown	216	2	$436,664	$220,918	$50,900	$0	$1,654,952
Other Areas Total	**9,054**	**7,421**	**$588,204,507**	**$871,265,505**	**$23,429,876**	**$518,253,505**	**$1,980,656,084**
Butte Creek Watershed Total	**10,752**	**8,637**	**$883,628,887**	**$1,125,646,503**	**$60,706,333**	**$691,995,375**	**$2,752,819,003**
Dry Creek / Cherokee Canal Watershed							
1% Annual Chance Flood Hazard							
Agricultural	208	65	$57,096,642	$7,663,777	$2,273,182	$7,663,777	$76,062,598
Commercial	2	2	$253,526	$1,065,890	$3,300	$1,065,890	$2,405,106
Industrial	1	1	$667,196	$11,503,828	$0	$17,255,742	$29,426,766
Residential	49	28	$2,998,376	$4,084,160	$14,941	$2,042,080	$9,292,461
Unknown	26	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**286**	**96**	**$61,015,740**	**$24,317,655**	**$2,291,423**	**$28,027,489**	**$117,186,931**
0.2% Annual Chance Flood Hazard**							
Agricultural	204	67	$63,953,505	$5,997,473	$852,099	$5,997,473	$78,680,523
Commercial	1	0	$4,298				$4,298
Industrial	9	8	$735,160	$12,105,597	$3,900,600	$18,158,396	$34,929,143
Residential	87	68	$8,070,996	$11,345,659	$36,860	$5,672,830	$27,079,193
Unknown	88	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**389**	**143**	**$72,763,959**	**$29,448,729**	**$4,789,559**	**$29,828,698**	**$140,693,156**
Other Areas							
Agricultural	384	110	$50,658,789	$13,173,427	$2,335,687	$13,173,427	$81,972,122
Commercial	22	17	$2,726,275	$6,132,783	$518,330	$6,132,783	$14,478,509
Industrial	2	2	$442,597	$660,653	$0	$990,980	$2,094,230

Watershed / Flood Zone / Property Use /	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Residential	652	446	$57,177,452	$97,291,049	$81,875	$48,645,525	$201,746,520
Unknown	60	1	$226,438	$87,728	$0	$0	$306,398
Other Areas Total	1,120	576	$111,231,551	$117,345,640	$2,935,892	$68,942,714	$300,597,778
Dry Creek / Cherokee Canal Watershed Total	**1,795**	**815**	**$245,011,250**	**$171,112,024**	**$10,016,874**	**$126,798,901**	**$558,477,865**
Feather River / Lower Honcut Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	280	212	$80,189,952	$25,672,415	$26,573,917	$25,672,415	$163,535,040
Commercial	51	27	$3,615,741	$4,782,195	$271,700	$4,782,195	$13,939,281
Industrial	32	14	$1,788,027	$4,080,449	$1,294,298	$6,120,674	$13,747,087
Residential	614	460	$31,074,589	$39,820,269	$553,933	$19,910,135	$90,902,226
Unknown	170	1	$853,714	$187,080	$436,443	$0	$2,420,833
1% Annual Chance Flood Hazard Total	**1,147**	**714**	**$117,522,023**	**$74,542,408**	**$29,130,291**	**$56,485,418**	**$284,544,466**
0.2% Annual Chance Flood Hazard**							
Agricultural	553	398	$103,293,557	$47,798,345	$33,879,724	$47,798,345	$247,922,302
Commercial	23	19	$1,918,875	$5,277,429	$99,860	$5,277,429	$9,710,198
Industrial	9	9	$848,613	$6,314,630	$1,173,120	$9,471,945	$19,524,778
Residential	1,376	1,276	$88,345,377	$161,238,815	$2,012,711	$80,619,408	$333,084,911
Unknown	84	0	$12,546	$0	$0	$0	$12,546
0.2% Annual Chance Flood Hazard Total	**2,045**	**1,702**	**$194,418,968**	**$220,629,219**	**$37,165,415**	**$143,167,127**	**$610,254,735**
Other Areas							
Agricultural	510	200	$66,403,031	$19,816,765	$3,753,941	$19,816,765	$111,794,408
Commercial	223	170	$21,383,689	$60,661,593	$771,668	$60,661,593	$128,676,957
Industrial	41	19	$5,354,008	$4,181,845	$109,800	$6,272,768	$18,860,862
Residential	12,221	9,803	$589,803,858	$915,916,268	$733,540	$457,958,134	$1,918,492,622
Unknown	214	5	$566,132	$683,718	$0	$0	$1,091,801
Other Areas Total	**13,209**	**10,197**	**$683,510,718**	**$1,001,260,189**	**$5,368,949**	**$544,709,260**	**$2,178,916,650**

Watershed / Flood Zone / Property Use /	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Feather River / Lower Honcut Creek Watershed Total	**16,401**	**12,613**	**$995,451,709**	**$1,296,431,816**	**$71,664,655**	**$744,361,804**	**$3,073,715,850**
Lake Oroville / Upper Feather River Watershed							
1% Annual Chance Flood Hazard							
Agricultural	0	0	$0	$0	$0	$0	$0
Commercial	2	0	$0	$0	$0	$0	$0
Industrial	1	0	$0	$0	$0	$0	$0
Residential	29	8	$324,073	$431,020	$0	$215,510	$963,603
Unknown	36	0	$2,720	$0	$0	$0	$2,720
1% Annual Chance Flood Hazard Total	**68**	**8**	**$326,793**	**$431,020**	**$0**	**$215,510**	**$966,323**
Other Areas							
Agricultural	557	43	$25,009,401	$2,915,866	$451,774	$2,915,866	$30,179,887
Commercial	76	59	$7,211,210	$16,661,430	$174,326	$16,661,430	$30,812,771
Industrial	2	0	$5,918	$0	$0	$0	$5,918
Residential	7,161	3,865	$304,635,395	$320,328,391	$107,369	$160,164,196	$767,289,675
Unknown	464	1	$369,802	$13,578			$382,342
Other Areas Total	8,260	3,968	$337,231,726	$339,919,265	$733,469	$179,741,492	$828,670,593
Lake Oroville / Upper Feather River Watershed Total	**8,328**	**3,976**	**$337,558,519**	**$340,350,285**	**$733,469**	**$179,957,002**	**$829,636,916**
Little Chico Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	181	140	$60,153,328	$25,081,841	$23,786,059	$25,081,841	$142,431,829
Commercial	14	10	$3,599,106	$4,732,037	$22,020	$4,732,037	$12,472,079
Industrial	12	10	$2,077,285	$3,857,855	$5,133,304	$5,786,783	$17,405,887
Residential	477	446	$41,347,063	$61,641,943	$308,263	$30,820,972	$132,688,336
Unknown	11	0	$0	$0	$0	$0	$0
1% Annual Chance Flood Hazard Total	**695**	**606**	**$107,176,782**	**$95,313,676**	**$29,249,646**	**$66,421,632**	**$304,998,130**
0.2% Annual Chance Flood Hazard**							
Agricultural	0	0	$0	$0	$0	$0	$0

Watershed / Flood Zone / Property Use /	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Commercial	0	0	$0	$0	$0	$0	$0
Industrial	0	0	$0	$0	$0	$0	$0
Residential	11	11	$1,682,071	$3,529,785	$0	$1,764,893	$6,913,749
Unknown	0	0	$0	$0	$0	$0	$0
0.2% Annual Chance Flood Hazard Total	**11**	**11**	**$1,682,071**	**$3,529,785**	**$0**	**$1,764,893**	**$6,913,749**
Other Areas							
Agricultural	390	319	$107,569,010	$54,426,255	$56,270,778	$54,426,255	$280,212,345
Commercial	45	31	$5,599,362	$12,956,962	$222,550	$12,956,962	$28,939,698
Industrial	37	33	$10,172,891	$33,933,497	$893,690	$50,900,246	$95,959,624
Residential	1,906	1,641	$163,561,493	$254,787,465	$1,170,581	$127,393,733	$539,091,401
Unknown	31	1	$110,105	$140,482			$250,587
Other Areas Total	2,409	2,025	$287,012,861	$356,244,661	$58,557,599	$245,677,195	$944,453,654
Little Chico Creek Watershed Total	**3,115**	**2,642**	**$395,871,714**	**$455,088,122**	**$87,807,245**	**$313,863,720**	**$1,256,365,533**
Pine Creek Watershed							
1% Annual Chance Flood Hazard							
Agricultural	97	79	$51,331,956	$22,177,281	$18,690,222	$22,177,281	$116,681,607
Commercial	4	3	$402,319	$150,871	$0	$150,871	$704,061
Industrial	0	0	$0	$0	$0	$0	$0
Residential	15	7	$571,589	$783,620	$0	$391,810	$1,710,509
Unknown	5	1	$153,053	$136,427	$198,537	$0	$488,017
1% Annual Chance Flood Hazard Total	**121**	**90**	**$52,458,917**	**$23,248,199**	**$18,888,759**	**$22,719,962**	**$119,584,194**
Other Areas							
Agricultural	102	75	$32,735,033	$22,282,521	$14,854,404	$22,282,521	$94,975,909
Commercial	2	1	$151,975	$269,477	$0	$269,477	$690,929
Industrial	0	0	$0	$0	$0	$0	$0
Residential	26	23	$2,989,183	$4,628,027	$9,520	$2,314,014	$9,867,117
Unknown	6	0	$0	$0	$0	$0	$0
Other Areas Total	**136**	**99**	**$35,876,191**	**$27,180,025**	**$14,863,924**	**$24,866,012**	**$105,533,955**

Watershed / Flood Zone / Property Use /	Total Parcel Count	Improved Parcel Count*	Total Land Value	Improved Structure Value	Other Value	Estimated Contents Value	Total Value
Pine Creek Watershed Total	**257**	**189**	**$88,335,108**	**$50,428,224**	**$33,752,683**	**$47,585,974**	**$225,118,149**
Unincorporated Butte County Total	**102**	**75**	**$32,735,033**	**$22,282,521**	**$14,854,404**	**$22,282,521**	**$94,975,909**

Source: FEMA 1/6/2011 DFIRM, Butte County 3/28/2019 Parcel/Assessor's Data

*With respect to improve parcels within the floodplain, the actual structures on the parcels may not be located within the actual floodplain, may be elevated and or otherwise outside of the identified flood zone

**This parcel count only includes those parcels in the 0.2% annual chance flood zone, exclusive of the 1% annual chance flood zone. The 0.2% annual chance flood also includes all parcels in the 1% annual chance flood zone.

Appendix H Wildfire History

Table H-1 Butte County Wildfire History (Sorted by Acres Burned)

Year	Fire Name	Alarm Date	Cause	Acres Burned
2018	CAMP	11/8/2018	Power Line	153,336
1990	CAMPBELL	8/13/1990	Equipment Use	131,504
2000	STORRIE	8/17/2000	Railroad	56,076
2008	BTU LIGHTNING COMPLEX	7/2/2008	Lightning	53,699
1931	–	–	Miscellaneous	42,078
1999	BUCKS	8/23/1999	Lightning	34,236
1927	–	–	Unknown/Unidentified	27,841
2008	HUMBOLDT	6/11/2008	Arson	23,344
1918	–	–	Miscellaneous	22,232
1951	MILK RANCH	9/11/1951	Miscellaneous	21,979
1999	MUSTY	8/23/1999	Lightning	16,757
2017	CASCADE	10/8/2017	Unknown/Unidentified	16,141
2008	SCOTCH	6/21/2008	Lightning	13,008
1917	–	–	Miscellaneous	12,701
1926	–	–	Miscellaneous	12,536
2008	SOUTH-FREY	6/21/2008	Lightning	12,402
1943	PINE CREEK	7/21/1943	Unknown/Unidentified	11,360
1999	DOE MILL	8/23/1999	Lightning	10,857
1964	LIGHTNING #1	7/12/1964	Unknown/Unidentified	9,876
1927	–	–	Unknown/Unidentified	8,541
2017	CHEROKEE	10/8/2017	Power Line	8,416
2001	POE	9/6/2001	Arson	8,055
1917	–	–	Unknown/Unidentified	8,003
1992	VILLA	9/25/1992	Power Line	6,605
1945	–	–	Miscellaneous	6,358
1984	BIDWELL	7/2/1984	Unknown/Unidentified	6,192
2017	WALL	7/7/2017	Equipment Use	6,028
1992	BURTON	9/25/1992	Equipment Use	5,915
1966	PROJECT 19	8/25/1966	Unknown/Unidentified	5,725
1931	–	–	Unknown/Unidentified	5,468
1929	–	–	Unknown/Unidentified	4,845

Year	Fire Name	Alarm Date	Cause	Acres Burned
2008	FRIEND-DARNELL	7/8/2008	Lightning	4,112
1929	–	–	Unknown/Unidentified	4,065
2017	PONDEROSA	8/29/2017	Arson	4,016
1983	MUNJAR	6/17/1983	Debris	3,452
1966	LASSEN NF/CONCOW RD2	10/31/1966	Unknown/Unidentified	3,345
1924	–	–	Miscellaneous	2,778
1931	–	–	Unknown/Unidentified	2,700
1924	–	–	Miscellaneous	2,690
1991	GREY LODGE	8/15/1991	Unknown/Unidentified	2,643
1983	HAMLIN CANYON	9/3/1983	Unknown/Unidentified	2,634
1999	BLOOMER	8/23/1999	Lightning	2,610
1953	SUGAR LOAF	9/17/1953	Unknown/Unidentified	2,602
1926	–	–	Miscellaneous	2,559
2013	SWEDES	8/6/2013	Unknown/Unidentified	2,462
2002	SKYWAY	6/8/2002	Lightning	2,141
1995	HWY 149	10/4/1995	Unknown/Unidentified	2,140
1918	–	–	Miscellaneous	2,035
2008	CRAIG	8/4/2008	Debris	2,019
2004	OREGON	8/11/2004	Firefighter Training	1,955
1931	–	–	Unknown/Unidentified	1,902
2008	FOX	6/22/2008	Lightning	1,870
2000	CONCOW	9/20/2000	Equipment Use	1,835
1999	BEAN	8/23/1999	Lightning	1,785
1954	POWER LINE #1	7/6/1954	Unknown/Unidentified	1,757
2001	HIGHWAY 70	10/24/2001	Arson	1,693
1999	SOUTH	8/23/1999	Lightning	1,572
1996	PALERMO	10/20/1996	Miscellaneous	1,515
1917	–	–	Miscellaneous	1,481
1961	C.P. MINE	9/3/1961	Unknown/Unidentified	1,472
2008	LITTLE	6/22/2008	Lightning	1,399
1918	–	–	Miscellaneous	1,312
1921	–	–	Unknown/Unidentified	1,294
1985	ROCK CREEK	6/11/1985	Unknown/Unidentified	1,268
1917	–	–	Miscellaneous	1,252
1957	C. KAST	9/5/1957	Unknown/Unidentified	1,203
1920	–	–	Unknown/Unidentified	1,142

Year	Fire Name	Alarm Date	Cause	Acres Burned
1994	TABLE	6/11/1994	Railroad	1,132
1966	PENTZ	8/25/1966	Unknown/Unidentified	1,130
1961	LONG BAR RD. #1	6/30/1961	Unknown/Unidentified	1,064
2007	BANGOR	8/7/2007	Arson	1,057
2015	LUMPKIN	9/11/2015	Arson	1,046
1942	–	–	Unknown/Unidentified	1,003
1999	WOODLAND	8/23/1999	Lightning	995
1966	FALL CREEK	7/26/1966	Unknown/Unidentified	959
2008	OPHIR	6/10/2008	Equipment Use	959
2018	STONEY	7/12/2018	Unknown/Unidentified	955
1950	–	–	Miscellaneous	924
2015	MERIDIAN	10/13/2015	Equipment Use	902
1979	BIDWELL PARK	7/25/1979	Unknown/Unidentified	874
1954	SWEDES FLAT	6/30/1954	Unknown/Unidentified	849
1926	–	–	Unknown/Unidentified	824
1992	DRY	6/21/1992	Miscellaneous	820
1973	TRAINER HILLS	6/27/1973	Unknown/Unidentified	809
1959	NORTH HONCUT CREEK	7/24/1959	Unknown/Unidentified	800
1926	–	–	Unknown/Unidentified	794
2008	FOUR MILE	6/21/2008	Lightning	789
1949	–	–	Lightning	773
1951	–	–	Miscellaneous	760
1917	–	–	Unknown/Unidentified	760
1992	MAIDU	9/22/1992	Unknown/Unidentified	750
1993	NELSON	9/1/1993	Equipment Use	744
1966	PROJ26/LANGENFELDER9	11/3/1966	Unknown/Unidentified	743
1973	HWY 32/SANTOS	7/24/1973	Unknown/Unidentified	742
2016	SADDLE	9/5/2016	Vehicle	740
1999	UNION	8/23/1999	Lightning	736
1978	CHEROKEE ROAD #10	8/18/1978	Unknown/Unidentified	734
1964	W.P.R.R. #6A	6/25/1964	Unknown/Unidentified	733
1973	CHEROKEE RD. #6	9/9/1973	Unknown/Unidentified	728
2007	HONEY	5/22/2007	Power Line	726
1958	DEADMAN SPRINGS	9/27/1958	Unknown/Unidentified	723
1921	–	–	Unknown/Unidentified	712
1918	–	–	Lightning	710
1918	–	–	Unknown/Unidentified	705

Year	Fire Name	Alarm Date	Cause	Acres Burned
1911	–	–	Unknown/Unidentified	703
1917	–	–	Unknown/Unidentified	700
1979	CLARK RD. #2	6/22/1979	Unknown/Unidentified	699
1994	RAULSON	6/30/1994	Equipment Use	687
1973	L. SEVEN	8/1/1973	Unknown/Unidentified	678
2010	PALERMO	7/4/2010	Playing with Fire	672
1918	–	–	Miscellaneous	653
1961	SKYWAY	9/21/1961	Unknown/Unidentified	638
2001	LARKIN	5/20/2001	Unknown/Unidentified	627
1961	LUCKY 7	11/4/1961	Unknown/Unidentified	620
2003	NATURE	6/23/2003	Lightning	617
1954	COUNTY ROADSIDE #21	7/4/1954	Unknown/Unidentified	617
1966	BIDWELL PARK	6/11/1966	Unknown/Unidentified	616
2003	SEVENTY	6/24/2003	Vehicle	608
2003	SEVENTY	6/24/2003	Vehicle	608
1983	SKYWAY #3	7/14/1983	Unknown/Unidentified	604
1944	–	–	Unknown/Unidentified	599
1989	CANAL	7/7/1989	Smoking	595
1975	HWY 99 SE	8/4/1975	Unknown/Unidentified	582
1950	SHEEP HOLLOW	6/16/1950	Unknown/Unidentified	559
1959	PALMERO RD.	6/29/1959	Unknown/Unidentified	557
1926	–	–	Unknown/Unidentified	548
1936	–	–	Unknown/Unidentified	544
1990	MIDWAY	10/5/1990	Debris	542
2016	NINTEY NINE	8/2/2016	Playing with Fire	541
1961	BIDWELL BAR-PG&E #6	9/2/1961	Unknown/Unidentified	540
1961	SKYWAY #10	9/2/1961	Unknown/Unidentified	538
1991	RANCH	10/19/1991	Debris	517
1974	LA PORTE RD #3/ELLIS	8/4/1974	Unknown/Unidentified	516
1914	–	–	Unknown/Unidentified	515
1960	CENTERVILLE	8/6/1960	Unknown/Unidentified	504
1928	–	–	Unknown/Unidentified	503
2000	LARKIN	6/13/2000	Railroad	487
1944	–	–	Miscellaneous	485
1917	–	–	Unknown/Unidentified	485
1951	CARLYLE	8/14/1951	Unknown/Unidentified	471
1917	–	–	Unknown/Unidentified	466

Year	Fire Name	Alarm Date	Cause	Acres Burned
1955	SWEDE'S FLAT	8/7/1955	Unknown/Unidentified	463
1919	–	–	Unknown/Unidentified	459
1917	–	–	Unknown/Unidentified	454
2006	SKYWAY	7/17/2006	Vehicle	453
1924	–	–	Miscellaneous	451
2018	JUNES	10/30/2018	Debris	451
1958	S. FOSTER	7/13/1958	Unknown/Unidentified	444
1996	HWY 162	10/16/1996	Debris	439
1960	BALD ROCK	8/20/1960	Unknown/Unidentified	424
1946	–	–	Miscellaneous	424
1964	SOUTH TABLE	10/13/1964	Unknown/Unidentified	413
1992	HONCUT	6/24/1992	Arson	411
1986	BIDWELL PARK	9/3/1986	Equipment Use	400
1972	PULGA	8/23/1972	Unknown/Unidentified	396
1930	–	–	Unknown/Unidentified	396
2015	SWEDES	7/25/2015	Arson	390
1950	–	–	Miscellaneous	383
1920	–	–	Unknown/Unidentified	379
2014	WEB	7/28/2014	Equipment Use	378
1916	–	–	Unknown/Unidentified	375
1959	SKYLINE	6/29/1959	Unknown/Unidentified	368
1931	–	–	Unknown/Unidentified	363
1943	–	–	Miscellaneous	359
2018	SHIPPEE	6/26/2018	Power Line	357
1921	–	–	Unknown/Unidentified	352
1963	ORO-CHICO RD.	7/3/1963	Unknown/Unidentified	350
1927	–	–	Unknown/Unidentified	349
1992	HONCUT	8/20/1992	Miscellaneous	348
1986	DURHAM PENTZ #1	6/5/1986	Arson	343
1990	BAYLES	10/13/1990	Debris	341
1920	–	–	Unknown/Unidentified	341
2014	NELSON	9/18/2014	Power Line	336
1948	–	–	Miscellaneous	335
1932	–	–	Unknown/Unidentified	335
1940	–	–	Unknown/Unidentified	328
1941	–	–	Miscellaneous	321
1929	–	–	Unknown/Unidentified	308

Year	Fire Name	Alarm Date	Cause	Acres Burned
1943	HALE	6/7/1943	Unknown/Unidentified	307
1972	WEBB/COLE	6/7/1972	Unknown/Unidentified	303
1921	–	–	Unknown/Unidentified	300
1918	–	–	Miscellaneous	299
2003	PALERMO	9/13/2003	Miscellaneous	299
1916	–	–	Unknown/Unidentified	291
1921	–	–	Unknown/Unidentified	287
1961	TABLE MOUNTAIN	7/27/1961	Unknown/Unidentified	287
1986	DURHAM PENTZ #2	6/5/1986	Arson	285
1980	–	12/14/1980	Miscellaneous	285
1953	–	–	Unknown/Unidentified	281
1967	BIDWELL PARK	7/4/1967	Unknown/Unidentified	281
1950	HARTS MILL	8/7/1950	Unknown/Unidentified	281
1954	HACKETT	6/20/1954	Unknown/Unidentified	280
1999	DUNSTONE	8/23/1999	Lightning	278
2009	ELEPHANT	8/16/2009	Miscellaneous	274
2013	SUMMIT	10/4/2013	Miscellaneous	268
1979	HUMBUG ROAD	6/7/1979	Unknown/Unidentified	264
1974	P. WILSON	6/7/1974	Unknown/Unidentified	263
1964	DRY CREEK	10/13/1964	Unknown/Unidentified	261
2001	LARKIN	10/13/2001	Arson	257
1990	WILD	6/8/1990	Equipment Use	257
1949	–	–	Lightning	256
1980	LOMA RICE ROAD	10/27/1980	Unknown/Unidentified	251
1920	–	–	Miscellaneous	250
1919	–	–	Unknown/Unidentified	249
2007	HWY 32	8/3/2007	Vehicle	248
1932	–	–	Unknown/Unidentified	243
1954	BALD ROCK #1	7/4/1954	Unknown/Unidentified	240
1949	–	–	Miscellaneous	239
1931	–	–	Unknown/Unidentified	238
1920	–	–	Unknown/Unidentified	236
1920	–	–	Lightning	236
1930	–	–	Unknown/Unidentified	231
1931	–	–	Unknown/Unidentified	230
1919	–	–	Unknown/Unidentified	227
2013	LONE	6/3/2013	Equipment Use	225

Year	Fire Name	Alarm Date	Cause	Acres Burned
1927	–	–	Unknown/Unidentified	206
1975	ASSIST#8 P.F.P.D.#4	7/14/1975	Unknown/Unidentified	198
1939	–	–	Unknown/Unidentified	197
2002	BEAN	11/26/2002	Debris	187
1930	–	–	Unknown/Unidentified	183
1931	–	–	Unknown/Unidentified	181
1911	–	–	Unknown/Unidentified	170
1932	–	–	Unknown/Unidentified	168
1927	–	–	Unknown/Unidentified	164
2003	OREGON	9/10/2003	Railroad	163
1977	–	7/17/1977	Miscellaneous	163
1936	–	–	Unknown/Unidentified	160
2008	CHINO	6/22/2008	Lightning	159
1988	ADAMS RANCH	9/7/1988	Unknown/Unidentified	156
2017	HONEY	10/9/2017	Power Line	154
2017	SKYWAY	6/16/2017	Vehicle	144
1928	–	–	Unknown/Unidentified	143
2016	BANGOR	9/22/2016	Vehicle	143
1954	–	–	Miscellaneous	140
1973	PENTZ/67	10/3/1973	Unknown/Unidentified	133
1987	–	8/30/1987	Lightning	130
1980	–	12/14/1980	Miscellaneous	128
1931	–	–	Unknown/Unidentified	121
1987	DUNCAN	10/8/1987	Miscellaneous	118
2012	OREGON	7/8/2012	Power Line	117
2016	COAL	6/20/2016	Equipment Use	108
1970	–	8/9/1970	Miscellaneous	94
2012	POWER	6/15/2012	Unknown/Unidentified	93
2003	CENTERVILLE	10/26/2003	Campfire	91
1966	–	–	Miscellaneous	90
2016	SANTOS	8/26/2016	Arson	87
1991	MOSQUITO	1/20/1991	Miscellaneous	84
1945	–	–	Miscellaneous	79
2008	FEATHER FALLS	5/14/2008	Arson	75
1988	–	3/27/1988	Debris	71
2015	WEB	7/1/2015	Miscellaneous	71
2013	BRANCH	8/1/2013	Miscellaneous	69

Year	Fire Name	Alarm Date	Cause	Acres Burned
2013	CEDAR	5/1/2013	Escaped Prescribed Burn	68
2006	WOODLEAF	9/10/2006	Aircraft	63
1965	–	–	Miscellaneous	59
2002	UNION	11/27/2002	Debris	58
2012	CONCOW	9/26/2012	Equipment Use	56
2013	CENTERVILLE	8/31/2013	Miscellaneous	54
1989	–	11/9/1989	Debris	54
1946	–	–	Miscellaneous	52
1999	MOSQUITO	8/23/1999	Lightning	51
2015	OLIVE	9/2/2015	Equipment Use	48
2013	FLEA	10/27/2013	Lightning	40
2018	SIMMONS	7/19/2018	Arson	33
1991	–	1/20/1991	Debris	31
1990	WILD	6/8/1990	Miscellaneous	30
2008	BROWN	6/21/2008	Lightning	29
2017	THIRTY TWO	9/25/2017	Unknown/Unidentified	28
2010	PARHAM	8/23/2010	Unknown/Unidentified	27
2008	FORBESTOWN	6/21/2008	Lightning	26
2009	JORDAN	7/15/2009	Debris	24
2008	ROCK2	6/22/2008	Lightning	24
2006	PHILBROOK	8/29/2006	Campfire	24
2016	NELSON	6/28/2016	Miscellaneous	22
2017	HIGHWAY	6/22/2017	Power Line	21
1949	–	–	Lightning	21
2008	HUNGARY	6/21/2008	Lightning	20
2015	GRIMY	5/30/2015	Equipment Use	19
2008	RODY	6/21/2008	Lightning	19
2011	60 B	12/1/2011	Escaped Prescribed Burn	16
1971	–	11/19/1971	Campfire	15
2015	TREE	7/26/2015	Equipment Use	13
2011	DIXIE	8/19/2011	Power Line	11
2018	DARK	7/10/2018	Equipment Use	11
2011	LOVELOCK	2/13/2011	Escaped Prescribed Burn	10
2011	FOUR CORNERS	12/1/2011	Escaped Prescribed Burn	10

Year	Fire Name	Alarm Date	Cause	Acres Burned
1976	–	5/16/1976	Equipment Use	10
1976	–	7/4/1976	Miscellaneous	9
2017	DIXIE	9/12/2017	Miscellaneous	9
1999	JONES	8/23/1999	Lightning	6

Source: CAL FIRE

Table H-2 Butte County Wildfire History (Sorted by Year Ascending)

Year	Fire Name	Alarm Date	Cause	Acres Burned
1911	–	–	Unknown/Unidentified	703
1911	–	–	Unknown/Unidentified	170
1914	–	–	Unknown/Unidentified	515
1916	–	–	Unknown/Unidentified	375
1916	–	–	Unknown/Unidentified	291
1917	–	–	Miscellaneous	12,701
1917	–	–	Unknown/Unidentified	8,003
1917	–	–	Miscellaneous	1,481
1917	–	–	Miscellaneous	1,252
1917	–	–	Unknown/Unidentified	760
1917	–	–	Unknown/Unidentified	700
1917	–	–	Unknown/Unidentified	485
1917	–	–	Unknown/Unidentified	466
1917	–	–	Unknown/Unidentified	454
1918	–	–	Miscellaneous	22,232
1918	–	–	Miscellaneous	2,035
1918	–	–	Miscellaneous	1,312
1918	–	–	Lightning	710
1918	–	–	Unknown/Unidentified	705
1918	–	–	Miscellaneous	653
1918	–	–	Miscellaneous	299
1919	–	–	Unknown/Unidentified	459
1919	–	–	Unknown/Unidentified	249
1919	–	–	Unknown/Unidentified	227
1920	–	–	Unknown/Unidentified	1,142
1920	–	–	Unknown/Unidentified	379
1920	–	–	Unknown/Unidentified	341
1920	–	–	Miscellaneous	250
1920	–	–	Unknown/Unidentified	236
1920	–	–	Lightning	236
1921	–	–	Unknown/Unidentified	1,294
1921	–	–	Unknown/Unidentified	712
1921	–	–	Unknown/Unidentified	352
1921	–	–	Unknown/Unidentified	300
1921	–	–	Unknown/Unidentified	287
1924	–	–	Miscellaneous	2,778

Year	Fire Name	Alarm Date	Cause	Acres Burned
1924	–	–	Miscellaneous	2,690
1924	–	–	Miscellaneous	451
1926	–	–	Miscellaneous	12,536
1926	–	–	Miscellaneous	2,559
1926	–	–	Unknown/Unidentified	824
1926	–	–	Unknown/Unidentified	794
1926	–	–	Unknown/Unidentified	548
1927	–	–	Unknown/Unidentified	27,841
1927	–	–	Unknown/Unidentified	8,541
1927	–	–	Unknown/Unidentified	349
1927	–	–	Unknown/Unidentified	206
1927	–	–	Unknown/Unidentified	164
1928	–	–	Unknown/Unidentified	503
1928	–	–	Unknown/Unidentified	143
1929	–	–	Unknown/Unidentified	4,845
1929	–	–	Unknown/Unidentified	4,065
1929	–	–	Unknown/Unidentified	308
1930	–	–	Unknown/Unidentified	396
1930	–	–	Unknown/Unidentified	231
1930	–	–	Unknown/Unidentified	183
1931	–	–	Miscellaneous	42,078
1931	–	–	Unknown/Unidentified	5,468
1931	–	–	Unknown/Unidentified	2,700
1931	–	–	Unknown/Unidentified	1,902
1931	–	–	Unknown/Unidentified	363
1931	–	–	Unknown/Unidentified	238
1931	–	–	Unknown/Unidentified	230
1931	–	–	Unknown/Unidentified	181
1931	–	–	Unknown/Unidentified	121
1932	–	–	Unknown/Unidentified	335
1932	–	–	Unknown/Unidentified	243
1932	–	–	Unknown/Unidentified	168
1936	–	–	Unknown/Unidentified	544
1936	–	–	Unknown/Unidentified	160
1939	–	–	Unknown/Unidentified	197
1940	–	–	Unknown/Unidentified	328
1941	–	–	Miscellaneous	321

Year	Fire Name	Alarm Date	Cause	Acres Burned
1942	–	–	Unknown/Unidentified	1,003
1943	PINE CREEK	7/21/1943	Unknown/Unidentified	11,360
1943	–	–	Miscellaneous	359
1943	HALE	6/7/1943	Unknown/Unidentified	307
1944	–	–	Unknown/Unidentified	599
1944	–	–	Miscellaneous	485
1945	–	–	Miscellaneous	6,358
1945	–	–	Miscellaneous	79
1946	–	–	Miscellaneous	424
1946	–	–	Miscellaneous	52
1948	–	–	Miscellaneous	335
1949	–	–	Lightning	773
1949	–	–	Lightning	256
1949	–	–	Miscellaneous	239
1949	–	–	Lightning	21
1950	–	–	Miscellaneous	924
1950	SHEEP HOLLOW	6/16/1950	Unknown/Unidentified	559
1950	–	–	Miscellaneous	383
1950	HARTS MILL	8/7/1950	Unknown/Unidentified	281
1951	MILK RANCH	9/11/1951	Miscellaneous	21,979
1951	–	–	Miscellaneous	760
1951	CARLYLE	8/14/1951	Unknown/Unidentified	471
1953	SUGAR LOAF	9/17/1953	Unknown/Unidentified	2,602
1953	–	–	Unknown/Unidentified	281
1954	POWER LINE #1	7/6/1954	Unknown/Unidentified	1,757
1954	SWEDES FLAT	6/30/1954	Unknown/Unidentified	849
1954	COUNTY ROADSIDE #21	7/4/1954	Unknown/Unidentified	617
1954	HACKETT	6/20/1954	Unknown/Unidentified	280
1954	BALD ROCK #1	7/4/1954	Unknown/Unidentified	240
1954	–	–	Miscellaneous	140
1955	SWEDE'S FLAT	8/7/1955	Unknown/Unidentified	463
1957	C. KAST	9/5/1957	Unknown/Unidentified	1,203
1958	DEADMAN SPRINGS	9/27/1958	Unknown/Unidentified	723
1958	S. FOSTER	7/13/1958	Unknown/Unidentified	444
1959	NORTH HONCUT CREEK	7/24/1959	Unknown/Unidentified	800
1959	PALMERO RD.	6/29/1959	Unknown/Unidentified	557
1959	SKYLINE	6/29/1959	Unknown/Unidentified	368

Year	Fire Name	Alarm Date	Cause	Acres Burned
1960	CENTERVILLE	8/6/1960	Unknown/Unidentified	504
1960	BALD ROCK	8/20/1960	Unknown/Unidentified	424
1961	C.P. MINE	9/3/1961	Unknown/Unidentified	1,472
1961	LONG BAR RD. #1	6/30/1961	Unknown/Unidentified	1,064
1961	SKYWAY	9/21/1961	Unknown/Unidentified	638
1961	LUCKY 7	11/4/1961	Unknown/Unidentified	620
1961	BIDWELL BAR-PG&E #6	9/2/1961	Unknown/Unidentified	540
1961	SKYWAY #10	9/2/1961	Unknown/Unidentified	538
1961	TABLE MOUNTAIN	7/27/1961	Unknown/Unidentified	287
1963	ORO-CHICO RD.	7/3/1963	Unknown/Unidentified	350
1964	LIGHTNING #1	7/12/1964	Unknown/Unidentified	9,876
1964	W.P.R.R. #6A	6/25/1964	Unknown/Unidentified	733
1964	SOUTH TABLE	10/13/1964	Unknown/Unidentified	413
1964	DRY CREEK	10/13/1964	Unknown/Unidentified	261
1965	–	–	Miscellaneous	59
1966	PROJECT 19	8/25/1966	Unknown/Unidentified	5,725
1966	LASSEN NF/CONCOW RD2	10/31/1966	Unknown/Unidentified	3,345
1966	PENTZ	8/25/1966	Unknown/Unidentified	1,130
1966	FALL CREEK	7/26/1966	Unknown/Unidentified	959
1966	PROJ26/LANGENFELDER9	11/3/1966	Unknown/Unidentified	743
1966	BIDWELL PARK	6/11/1966	Unknown/Unidentified	616
1966	–	–	Miscellaneous	90
1967	BIDWELL PARK	7/4/1967	Unknown/Unidentified	281
1970	–	8/9/1970	Miscellaneous	94
1971	–	11/19/1971	Campfire	15
1972	PULGA	8/23/1972	Unknown/Unidentified	396
1972	WEBB/COLE	6/7/1972	Unknown/Unidentified	303
1973	TRAINER HILLS	6/27/1973	Unknown/Unidentified	809
1973	HWY 32/SANTOS	7/24/1973	Unknown/Unidentified	742
1973	CHEROKEE RD. #6	9/9/1973	Unknown/Unidentified	728
1973	L. SEVEN	8/1/1973	Unknown/Unidentified	678
1973	PENTZ/67	10/3/1973	Unknown/Unidentified	133
1974	LA PORTE RD #3/ELLIS	8/4/1974	Unknown/Unidentified	516
1974	P. WILSON	6/7/1974	Unknown/Unidentified	263
1975	HWY 99 SE	8/4/1975	Unknown/Unidentified	582
1975	ASSIST#8 P.F.P.D.#4	7/14/1975	Unknown/Unidentified	198

Year	Fire Name	Alarm Date	Cause	Acres Burned
1976	–	5/16/1976	Equipment Use	10
1976	–	7/4/1976	Miscellaneous	9
1977	–	7/17/1977	Miscellaneous	163
1978	CHEROKEE ROAD #10	8/18/1978	Unknown/Unidentified	734
1979	BIDWELL PARK	7/25/1979	Unknown/Unidentified	874
1979	CLARK RD. #2	6/22/1979	Unknown/Unidentified	699
1979	HUMBUG ROAD	6/7/1979	Unknown/Unidentified	264
1980	–	12/14/1980	Miscellaneous	285
1980	LOMA RICE ROAD	10/27/1980	Unknown/Unidentified	251
1980	–	12/14/1980	Miscellaneous	128
1983	MUNJAR	6/17/1983	Debris	3,452
1983	HAMLIN CANYON	9/3/1983	Unknown/Unidentified	2,634
1983	SKYWAY #3	7/14/1983	Unknown/Unidentified	604
1984	BIDWELL	7/2/1984	Unknown/Unidentified	6,192
1985	ROCK CREEK	6/11/1985	Unknown/Unidentified	1,268
1986	BIDWELL PARK	9/3/1986	Equipment Use	400
1986	DURHAM PENTZ #1	6/5/1986	Arson	343
1986	DURHAM PENTZ #2	6/5/1986	Arson	285
1987	–	8/30/1987	Lightning	130
1987	DUNCAN	10/8/1987	Miscellaneous	118
1988	ADAMS RANCH	9/7/1988	Unknown/Unidentified	156
1988	–	3/27/1988	Debris	71
1989	CANAL	7/7/1989	Smoking	595
1989	–	11/9/1989	Debris	54
1990	CAMPBELL	8/13/1990	Equipment Use	131,504
1990	MIDWAY	10/5/1990	Debris	542
1990	BAYLES	10/13/1990	Debris	341
1990	WILD	6/8/1990	Equipment Use	257
1990	WILD	6/8/1990	Miscellaneous	30
1991	GREY LODGE	8/15/1991	Unknown/Unidentified	2,643
1991	RANCH	10/19/1991	Debris	517
1991	MOSQUITO	1/20/1991	Miscellaneous	84
1991	–	1/20/1991	Debris	31
1992	VILLA	9/25/1992	Power Line	6,605
1992	BURTON	9/25/1992	Equipment Use	5,915
1992	DRY	6/21/1992	Miscellaneous	820
1992	MAIDU	9/22/1992	Unknown/Unidentified	750

Year	Fire Name	Alarm Date	Cause	Acres Burned
1992	HONCUT	6/24/1992	Arson	411
1992	HONCUT	8/20/1992	Miscellaneous	348
1993	NELSON	9/1/1993	Equipment Use	744
1994	TABLE	6/11/1994	Railroad	1,132
1994	RAULSON	6/30/1994	Equipment Use	687
1995	HWY 149	10/4/1995	Unknown/Unidentified	2,140
1996	PALERMO	10/20/1996	Miscellaneous	1,515
1996	HWY 162	10/16/1996	Debris	439
1999	BUCKS	8/23/1999	Lightning	34,236
1999	MUSTY	8/23/1999	Lightning	16,757
1999	DOE MILL	8/23/1999	Lightning	10,857
1999	BLOOMER	8/23/1999	Lightning	2,610
1999	BEAN	8/23/1999	Lightning	1,785
1999	SOUTH	8/23/1999	Lightning	1,572
1999	WOODLAND	8/23/1999	Lightning	995
1999	UNION	8/23/1999	Lightning	736
1999	DUNSTONE	8/23/1999	Lightning	278
1999	MOSQUITO	8/23/1999	Lightning	51
1999	JONES	8/23/1999	Lightning	6
2000	STORRIE	8/17/2000	Railroad	56,076
2000	CONCOW	9/20/2000	Equipment Use	1,835
2000	LARKIN	6/13/2000	Railroad	487
2001	POE	9/6/2001	Arson	8,055
2001	HIGHWAY 70	10/24/2001	Arson	1,693
2001	LARKIN	5/20/2001	Unknown/Unidentified	627
2001	LARKIN	10/13/2001	Arson	257
2002	SKYWAY	6/8/2002	Lightning	2,141
2002	BEAN	11/26/2002	Debris	187
2002	UNION	11/27/2002	Debris	58
2003	NATURE	6/23/2003	Lightning	617
2003	SEVENTY	6/24/2003	Vehicle	608
2003	SEVENTY	6/24/2003	Vehicle	608
2003	PALERMO	9/13/2003	Miscellaneous	299
2003	OREGON	9/10/2003	Railroad	163
2003	CENTERVILLE	10/26/2003	Campfire	91
2004	OREGON	8/11/2004	Firefighter Training	1,955
2006	SKYWAY	7/17/2006	Vehicle	453

Year	Fire Name	Alarm Date	Cause	Acres Burned
2006	WOODLEAF	9/10/2006	Aircraft	63
2006	PHILBROOK	8/29/2006	Campfire	24
2007	BANGOR	8/7/2007	Arson	1,057
2007	HONEY	5/22/2007	Power Line	726
2007	HWY 32	8/3/2007	Vehicle	248
2008	BTU LIGHTNING COMPLEX	7/2/2008	Lightning	53,699
2008	HUMBOLDT	6/11/2008	Arson	23,344
2008	SCOTCH	6/21/2008	Lightning	13,008
2008	SOUTH-FREY	6/21/2008	Lightning	12,402
2008	FRIEND-DARNELL	7/8/2008	Lightning	4,112
2008	CRAIG	8/4/2008	Debris	2,019
2008	FOX	6/22/2008	Lightning	1,870
2008	LITTLE	6/22/2008	Lightning	1,399
2008	OPHIR	6/10/2008	Equipment Use	959
2008	FOUR MILE	6/21/2008	Lightning	789
2008	CHINO	6/22/2008	Lightning	159
2008	FEATHER FALLS	5/14/2008	Arson	75
2008	BROWN	6/21/2008	Lightning	29
2008	FORBESTOWN	6/21/2008	Lightning	26
2008	ROCK2	6/22/2008	Lightning	24
2008	HUNGARY	6/21/2008	Lightning	20
2008	RODY	6/21/2008	Lightning	19
2009	ELEPHANT	8/16/2009	Miscellaneous	274
2009	JORDAN	7/15/2009	Debris	24
2010	PALERMO	7/4/2010	Playing with Fire	672
2010	PARHAM	8/23/2010	Unknown/Unidentified	27
2011	60 B	12/1/2011	Escaped Prescribed Burn	16
2011	DIXIE	8/19/2011	Power Line	11
2011	LOVELOCK	2/13/2011	Escaped Prescribed Burn	10
2011	FOUR CORNERS	12/1/2011	Escaped Prescribed Burn	10
2012	OREGON	7/8/2012	Power Line	117
2012	POWER	6/15/2012	Unknown/Unidentified	93
2012	CONCOW	9/26/2012	Equipment Use	56
2013	SWEDES	8/6/2013	Unknown/Unidentified	2,462

Year	Fire Name	Alarm Date	Cause	Acres Burned
2013	SUMMIT	10/4/2013	Miscellaneous	268
2013	LONE	6/3/2013	Equipment Use	225
2013	BRANCH	8/1/2013	Miscellaneous	69
2013	CEDAR	5/1/2013	Escaped Prescribed Burn	68
2013	CENTERVILLE	8/31/2013	Miscellaneous	54
2013	FLEA	10/27/2013	Lightning	40
2014	WEB	7/28/2014	Equipment Use	378
2014	NELSON	9/18/2014	Power Line	336
2015	LUMPKIN	9/11/2015	Arson	1,046
2015	MERIDIAN	10/13/2015	Equipment Use	902
2015	SWEDES	7/25/2015	Arson	390
2015	WEB	7/1/2015	Miscellaneous	71
2015	OLIVE	9/2/2015	Equipment Use	48
2015	GRIMY	5/30/2015	Equipment Use	19
2015	TREE	7/26/2015	Equipment Use	13
2016	SADDLE	9/5/2016	Vehicle	740
2016	NINTEY NINE	8/2/2016	Playing with Fire	541
2016	BANGOR	9/22/2016	Vehicle	143
2016	COAL	6/20/2016	Equipment Use	108
2016	SANTOS	8/26/2016	Arson	87
2016	NELSON	6/28/2016	Miscellaneous	22
2017	CASCADE	10/8/2017	Unknown/Unidentified	16,141
2017	CHEROKEE	10/8/2017	Power Line	8,416
2017	WALL	7/7/2017	Equipment Use	6,028
2017	PONDEROSA	8/29/2017	Arson	4,016
2017	HONEY	10/9/2017	Power Line	154
2017	SKYWAY	6/16/2017	Vehicle	144
2017	THIRTY TWO	9/25/2017	Unknown/Unidentified	28
2017	HIGHWAY	6/22/2017	Power Line	21
2017	DIXIE	9/12/2017	Miscellaneous	9
2018	CAMP	11/8/2018	Power Line	153,336
2018	STONEY	7/12/2018	Unknown/Unidentified	955
2018	JUNES	10/30/2018	Debris	451
2018	SHIPPEE	6/26/2018	Power Line	357
2018	SIMMONS	7/19/2018	Arson	33
2018	DARK	7/10/2018	Equipment Use	11

Source: CAL FIRE