



3 PLANNING PROCESS

Requirements §201.6(b) and §201.6(c)(1): An open public involvement process is essential to the development of an effective plan. In order to develop a more comprehensive approach to reducing the effects of natural disasters, the planning process shall include:

- 1) An opportunity for the public to comment on the plan during the drafting stage and prior to plan approval;**
- 2) An opportunity for neighboring communities, local and regional agencies involved in hazard mitigation activities, and agencies that have the authority to regulate development, as well as businesses, academia, and other private and nonprofit interests to be involved in the planning process; and**
- 3) Review and incorporation, if appropriate, of existing plans, studies, reports, and technical information.**

[The plan shall document] the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how the public was involved.

Butte County Office of Emergency Management (County OEM) recognized the need and importance of the update process for their local hazard mitigation plan update and initiated its development. After receiving a Disaster Recovery Grant (DRI) grant from Housing and Urban Development (HUD), which served as the primary funding source for this plan, the County contracted with AMEC Environment & Infrastructure (AMEC) to facilitate and develop the plan. Jeanine Foster, a professional planner with AMEC, was the project manager and lead planner in charge of overseeing the planning process and the development of this LHMP update. The AMEC team's role was to:

- Assist in establishing the Hazard Mitigation Planning Committee (HMPC) as defined by the Disaster Mitigation Act (DMA) of 2000;
- Meet the DMA requirements as established by federal regulations and following FEMA's planning guidance;
- Support objectives under the National Flood Insurance Program's Community Rating System and the Flood Mitigation Assistance program;
- Facilitate the entire planning process;
- Identify the data requirements that HMPC participants could provide and conduct the research and documentation necessary to augment that data,
- Assist in facilitating the public input process;
- Produce the draft and final plan documents; and
- Coordinate with the California Emergency Management Agency (CAL EMA) and FEMA Region IX plan reviews.

3.1 Local Government Participation

The DMA planning regulations and guidance stress that each local government seeking FEMA approval of their mitigation plan must participate in the planning effort in the following ways:

- Participate in the process as part of the HMPC;
- Detail where within the planning area the risk differs from that facing the entire area;
- Identify potential mitigation actions; and
- Formally adopt the plan.

For the Butte County Planning Area’s HMPC, “participation” meant the following:

- Providing facilities for meetings;
- Attending and participating in the HMPC meetings;
- Completing and returning the AMEC Data Collection Guide;
- Collecting and providing other requested data (as available);
- Managing administrative details;
- Making decisions on plan process and content;
- Updating the status of mitigation actions from the 2007 plan;
- Identifying mitigation actions for the this plan update;
- Reviewing and providing comments on plan drafts; including annexes
- Informing the public, local officials, and other interested parties about the planning process and providing opportunity for them to comment on the plan;
- Coordinating, and participating in the public input process; and
- Coordinating the formal adoption of the plan by the governing boards.

The County and all jurisdictions with annexes to this plan seeking FEMA approval met all of these participation requirements. In most cases one or more representatives for each jurisdiction attended the HMPC meetings described in Table 3.2 and also brought together a local planning team to help collect data, identify mitigation actions and implementation strategies, and review and provide data on plan drafts. Appendix A provides additional information and documentation of the planning process.

3.2 The 10-Step Planning Process

AMEC established the planning process for updating the Butte County Local Hazard Mitigation Plan using the DMA planning requirements and FEMA’s associated guidance. This guidance is structured around a four-phase process:

- 1) Organize Resources;
- 2) Assess Risks;
- 3) Develop the Mitigation Plan; and

4) Implement the Plan and Monitor Progress.

Into this process, AMEC integrated a more detailed 10-step planning process used for FEMA’s Community Rating System (CRS) and Flood Mitigation Assistance programs. Thus, the modified 10-step process used for this plan meets the requirements of six major programs: FEMA’s Hazard Mitigation Grant Program; Pre-Disaster Mitigation program; Community Rating System; Flood Mitigation Assistance Program; Severe Repetitive Loss program; and new flood control projects authorized by the U.S. Army Corps of Engineers.

Table 3.1 shows how the modified 10-step process fits into FEMA’s four-phase process. The sections that follow describe each planning step in more detail.

Table 3.1. Mitigation Planning Processes Used to Develop the Butte County Local Hazard Mitigation Plan

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

This LHMP update involved a comprehensive review and update of each section of the 2007 plan and includes an assessment of the success of the participating communities in evaluating, monitoring and implementing the mitigation strategy outlined in the initial plan. The process followed to update the plan is detailed in the above table and the sections that follow. As part of this plan update, all sections of the plan were reviewed and updated to reflect new data, processes, participating jurisdictions, and resulting mitigation strategies. In fact, based in part on the issuance of the new 2008 FEMA Plan Preparation Guidance, the 2007 plan has been reorganized, updated and rewritten in its entirety. Only the information and data still valid from the 2007 plan was carried forward as applicable into this LHMP update.

3.2.1 Phase 1: Organize Resources

Planning Step 1: Organize the Planning Effort

With Butte County's commitment to participate in the DMA planning process, AMEC worked with the Butte County OEM to establish the framework and organization for development of the plan. Organizational efforts were initiated with the County and participating jurisdictions to inform and educate the plan participants of the purpose and need for updating the countywide hazard mitigation plan. An initial conference call was held with County OEM to discuss the organizational aspects of this plan update process. Invitations to this kickoff meeting were extended to key county departments, the five cities, representatives from special districts for the county and cities, as well as to other federal, state, and local stakeholders, including representatives from the public, that might have an interest in participating in the planning process. Representatives from participating jurisdictions and HMPC members to the 2007 plan were used as a starting point for the invite list, with additional invitations extended as appropriate throughout the planning process. The list of initial invitees is included in Appendix A.

The HMPC was established as a result of these discussions, as well as through interest generated through the initial outreach and kickoff/public meeting conducted for this project as detailed later in this section. The HMPC, comprising key county, city, special district, and other government and stakeholder representatives, developed the plan with leadership from the County OEM and facilitation by AMEC. Each participating jurisdiction seeking FEMA approval of the plan had representation on the HMPC. Participating jurisdictions also indicated their commitment to participate as evidenced by executing a letter of commitment at the beginning of the planning process. Letters of commitment for participating jurisdictions are included in Appendix A. In addition to representation by participating jurisdictions, the HMPC included other agency and public stakeholders with an interest in hazard mitigation. The following participated on the HMPC:

Butte County

- Office of Emergency Management
- County Public Works
- GIS
- Agriculture Commissioner's Office
- Public Health
- Sheriff's Office
- Development Services
- General Services
- Administration

Participating Cities

- City of Biggs*
- City of Chico*
- City of Gridley*
- City of Oroville*
- Town of Paradise*

Other Government and Stakeholder Representatives

- Butte Fire Safe Council
- Cal EMA
- California Department of Water Resources
- US Forest Service
- Sutter County Office of Emergency Management
- Sutter Butte Flood Control Agency
- CAL FIRE

*indicates that jurisdiction is also a participating jurisdiction seeking FEMA approval of this plan.

Citizens

- Darrel Wilson
- Gary Keller

A list of participating HMPC representatives for each jurisdiction is included in Appendix A. This list details all HMPC members that attended one or more HMPC meetings detailed in Table 3.2. Each jurisdiction also utilized the support of many other support staff in order to collect and provide requested data and to conduct timely reviews of the draft documents. Note that the above list of HMPC members also includes several other government and stakeholder representatives that contributed to the planning process. Specific participants from these other agencies are also identified in Appendix A.

The planning process officially began with a kick-off meeting held in Butte County, on March 20, 2012. The meeting covered the scope of work and an introduction to the DMA requirements. Participants were provided with a Data Collection Workbook, which included worksheets to facilitate the collection of information necessary to support development of the plan. Using FEMA guidance, AMEC designed these worksheets to capture information on past hazard events, identify hazards of concern to each of the participating jurisdictions, quantify values at risk to identified hazards, inventory existing capabilities, and record possible mitigation actions. A copy of AMEC's Data Collection Workbook for this project is included in Appendix A. Because this is a plan update, another worksheet was developed, the Mitigation Action Status Summary Worksheet, to capture information on the current status of mitigation action items included in the 2007 plan. This worksheet is also included in Appendix A. The County and each

jurisdiction seeking FEMA approval of this plan update completed and returned the worksheets to AMEC for incorporation into the plan document.

During the planning process, the HMPC communicated through face-to-face meetings, email, telephone conversations, a file transfer protocol (ftp) website (an internal planning team website), and through a County developed webpage dedicated to the plan development process. This later website was developed to provide information to the HMPC, the public and all other stakeholders on the LHMP Update process. Draft documents were also posted on this website so that the HMPC members and the public could easily access and review them. The LHMP website can be accessed at:

- <http://www.buttecounty.net/Office%20of%20Emergency%20Mgmt/Local%20Hazard%20Mitigation%20Plan.aspx>.

The HMPC met four times during the planning period (March 20, 2012-December 13, 2012). The purposes of these meetings are described in Table 3.2. Agendas for each of the meetings are included in Appendix A.

Table 3.2. HMPC Meetings

Meeting Type	Meeting Topic	Meeting Date(s)	Meeting Location(s)
HMPC #1 Kick-off Meeting	1) Introduction to DMA and the planning process 2) Overview of current LHMP; 3) Organize Resources: the role of the HMPC, planning for public involvement, coordinating with other agencies/stakeholders 4) Introduction to Hazard Identification	March 20, 2012	Southside Oroville Community Center 2959 Lower Wyandotte Road, Oroville, CA
HMPC #2	1) Review of Risk Assessment; 2) Development of mitigation goals and objectives	October 17, 2012	Butte County Sheriff's Office 31 County Center Drive, Oroville CA 95965
HMPC #3	1) Finalization of mitigation goals and objectives; 2) Identification and prioritization of mitigation actions	October 18, 2012	Butte County Sheriff's Office 31 County Center Drive, Oroville CA 95965
HMPC #4	1) Final plan work session and open house	December 13, 2012	Butte County Sheriff's Office 31 County Center Drive, Oroville CA 95965

Planning Step 2: Involve the Public

Early discussions with the Butte County OEM established the initial plan for public involvement to ensure a meaningful public process. Public outreach for this plan update began at the

beginning of the plan development process with an informational press release to inform the public of the purpose of the DMA and the hazard mitigation planning process for the Butte County Planning Area and to invite the public to a public education/outreach meeting as part of the kickoff meeting for the project. At the kick-off meeting, the group discussed additional strategies for public involvement and agreed to an approach using established public information mechanisms and resources within the community. Public involvement activities for this plan update included press releases; development of an LHMP webpage and associated website postings; stakeholder and public meetings; completion of an online survey; and the collection of public and stakeholder comments on the draft plan which was posted on the County website. Information provided to the public included an overview of the mitigation status and successes resulting from implementation of the 2007 plan as well as information on the processes, new risk assessment data, and proposed mitigation strategies for the plan update.

Two stakeholder and public meetings were held, one at the beginning of the plan development process and one prior to finalizing the updated plan as further described in Table 3.3. Where appropriate, stakeholder and public comments and recommendations were incorporated into the final plan, including the sections that address mitigation goals and strategies. Specifically, public comments were obtained during the plan development process and prior to plan finalization. The groups providing formal comment and how those comments were addressed in the plan document include:

- Sacramento River Reclamation District: This District provided comments to the draft plan specific to the risk assessment. The three page letter provided information on several issues including floods, levee failure, invasive species and pests. Information was incorporated as relevant and the response is included in Appendix A.
- Nord Area Survey: As detailed later in this section, a Nord Area Survey was provided to Nord residents regarding their flood issues and interest in an elevation project for their homes. As part of the survey response, damage information was provided and also incorporated into the risk assessment portion of the plan. Information can be found in Appendix G.
- Chico Sky Watch: At the public meeting held on the draft plan in Chico on April 29th, comments were provided by this group on their claims of Sub-Stratospheric Aerosol GeoEngineering occurring in the skies. This was outside of the scope of this project and input was not addressed in the plan update.
- Area resident: At the public meeting held in Oroville on the draft plan on April 30th, a resident provided information on toxic pesticide spraying on area rice fields. Again, this was outside of the scope of this project and not addressed in the plan update.
- Butte Environmental Council: At the public meeting held in Oroville on the draft plan on April 30th, a resident and member of the Butte Environmental Council provided information in dioxin contamination of an area in Oroville. This issue is also not within the scope of this natural hazards plan and was not addressed in the plan update.

All press releases and website postings are on file with the Butte County OEM (see Figure 3.1 for an example of a press release). Public meetings were advertised in a variety of ways to maximize outreach efforts to both targeted groups and to the public at large. Advertisement mechanisms for these meetings and for involvement in the overall LHMP development process include:

- Development and publishing of an LHMP public outreach article (prior to the first public meeting) in the Chico Enterprise Record advising people on how to participate in the LHMP Update and directing them to the County LHMP Update webpage. See Appendix A for a copy of this article.
- Providing press releases to local newspapers and radio stations:
 - Chico Enterprise Record
 - Gridley Herald
 - Paradise Post
 - Oroville Mercury Record
- Posting meeting announcements on the local County LHMP website
- Email to established email lists
- Personal phone calls

Other public information activities to encourage input to the LHMP included:

- Ongoing outreach during the plan development process informing other groups and organizations that the Butte County LHMP Update was in process. Examples of Butte County OEM meeting with other groups with the LHMP Update on the agenda included: California Emergency Services Association (CESA), Butte County Disaster Council, Butte County Fire Safe Council, and others.
- Public outreach was also conducted during the Butte County Fair in August 2012. Butte County OEM manned a booth that included information on the LHMP Update, including a draft of the risk assessment document. The hazard mitigation public opinion survey was also distributed from the booth.

The plan is available online on the Butte County OEM website at <http://www.buttecounty.net/Office%20of%20Emergency%20Mgmt/Local%20Hazard%20Mitigation%20Plan.aspx>.

The public outreach activities described in Table 3.3 were conducted with participation from and on behalf of all jurisdictions participating in this plan.

Table 3.3. Schedule of Public and Stakeholder Meetings

Meeting Topic	Meeting Date	Meeting Locations
1) Intro to DMA and mitigation planning 2) LHMP plan overview and public comments	March 20, 2012	Southside Oroville Community Center. Oroville, CA
Presentation of Draft LHMP	April 29-30, 2013	Chico Veterans Hall Chico (April 29 th) Butte County Board of Supervisors Chambers Oroville (April 30 th)

Figure 3.1. Example of Press Releases Used to Involve the Public



PAUL HAHN
Chief Administrative Officer

**BUTTE COUNTY ADMINISTRATION
EMERGENCY SERVICES**

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MEMBERS OF THE BOARD

BILL CONNELLY
LARRY WAHL
MAUREEN KIRK
STEVE LAMBERT
KIM YAMAGUCHI

NEWS RELEASE

FOR IMMEDIATE RELEASE – March 14, 2012 – 1:30 p.m.

Contact: John Gulserian (530) 538-7373

BUTTE COUNTY INVITES PARTICIPATION IN HAZARD MITIGATION PLAN UPDATE

Oroville, CA – The Butte County Office of Emergency Management invites local jurisdictions and other interested stakeholders to the Local Hazard Mitigation Plan update kickoff meeting at 9:00 a.m. on Tuesday, March 20 at the Southside Oroville Community Center, 2959 Lower Wyandotte Road in Oroville. The purpose of the meeting is to inform participants and interested stakeholders about the process of updating the plan and the benefits of being involved.

Butte County is leading the development of the Multi-Jurisdictional All Hazards Mitigation Plan update (also known as Local Hazard Mitigation Plan) to better position resources that address potential natural and man-made hazards before they occur.

The plan will address a comprehensive list of natural and man-made hazards such as floods, earthquakes, wildfires, dam failure, hazardous materials, and domestic security threats. The plan will assess the likely impacts of these hazards to the people and assets of Butte County, and will establish updated goals to reduce the impacts of future disasters.

Upon preliminary approval by the California Emergency Management Agency and the Federal Emergency Management Agency, the plan will be presented to the Butte County Board of Supervisors for formal adoption.

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Figure 3.2. Butte County Hazard Mitigation Plan Webpage

General Information

YOU ARE HERE: [Office of Emergency Mgmt](#) » [Local Hazard Mitigation Plan](#)

Local Hazard Mitigation Plan

What is Hazard Mitigation?

The Federal Emergency Management Agency (FEMA) defines hazard mitigation as, "any sustained action taken to reduce or eliminate long-term risk to life and property from natural hazards." Another way to understand hazard mitigation is as the prevention component of the emergency management process.

- Preparedness activities are the emergency plans, training, drills, and exercises that individuals, communities and first responders participate in on almost a daily basis. These are things done to get ready for an emergency or disaster before it happens.
- Response is the short-term, emergency actions taken to address the immediate impacts of a hazard.
- Recovery is the longer-term process of restoring the community back to normal or pre-disaster conditions.
- Mitigation activities are actions that will prevent or eliminate losses, even if an incident does occur. Mitigation can reduce or eliminate the need for an emergency response and greatly reduce the recovery period.

This may sound complicated, but we all do many of these things on a daily basis. Consider the example of a family taking their car on a road trip in the winter months. Examples of the hazards of highway travel might include vehicle breakdown, inclement weather, or a traffic crash.

- Preparedness activities would include purchasing auto insurance and keeping the policy current, maintaining the vehicle so it is in good operating condition, bringing warm clothes, jumper cables, and a shovel, and having a cell phone on the trip.
- Response activities might include putting on the warm clothes and using the cell phone to call for towing service if the vehicle breaks down or calling 911 if involved in crash.
- Recovery would be getting the vehicle repaired and back on the road after a breakdown or crash.
- Mitigation would be assuring that everyone in the vehicle wears their seatbelt while the vehicle is in motion. This is a specific action to assure that if a crash does occur, the occupants of the vehicle are protected and their risk of serious injury is reduced. Another example would be to cancel or postpone the trip if hazardous winter weather is imminent. This action would eliminate exposure to the risk altogether.

These same concepts apply to community level hazard mitigation planning. Mitigation planning is a process for county and local governments to identify community-level policies and actions that will reduce the impacts of 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 fire, severe winter weather, floods and even tornadoes.

Emergency Management Cycle

Source: <http://www.buttecounty.net/Office%20of%20Emergency%20Mgmt/Local%20Hazard%20Mitigation%20Plan.aspx>

Public Outreach Survey

An integral element in hazard mitigation planning is broad public participation. Information provided by residents fosters a better understanding of local hazard concerns and can spawn innovative ideas to reduce impacts of future hazard events. A public opinion survey was accomplished to gather information from Butte County area residents concerning local hazards. The survey was located on the County's LHMP website and survey participation was promoted through public meetings, jurisdictional websites, press releases, and the Butte County Fair. Specifically, the survey was posted on the following websites:

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- Butte County: <http://www.buttecounty.net/>
 - Butte County Fire Safe Council: <http://www.thenet411.net/>
 - Paradise Irrigation District: <http://www.paradiseirrigation.com/>

Following is a summary of survey results. The survey is included in Appendix G.

A total of 130 residents participated in the public information survey. Over 60 percent of the participants are residents of unincorporated County (north area) and the Town of Paradise. The balance of the participants reside in the cities of Chico, Oroville, Biggs, and Gridley and unincorporated County (south area).

The survey depicts a moderate concern about future hazards from a majority of the participants. Predictably, the major hazard concerns revolve around wildfires as well as flooding due to heavy storms or infrastructure failure (dam, levee). Almost 70 percent of the survey participants live in high risk wildfire areas. And, over 10 percent of the survey participants have homes or businesses located within the Oroville dam inundation area or protected by levees. About 13 percent of the participants carry flood insurance, although there is no direct correlation to those with homes/businesses located within the identified floodplains, dam inundation area and/or protected by levees. The majority of participants have been impacted by a natural disaster, most specifically recent wildfires in the County.

Communication and education is a critically important factor for natural hazard mitigation. Most of the jurisdictions participating in the hazard mitigation planning process have emergency preparedness public information programs. Survey questions were structured to help ascertain the effectiveness of the “community-at-large” programs. The survey indicates 69 percent of the participants believe that the public information is satisfactory, while 31 percent do not believe enough information is made available. Most of the public information programs use direct mail and web based channels to deliver information. The survey indicated a strong preference to receive information through traditional mass media methods: e-mail was rated at 72.9 percent television was rated at 44.2 percent, newspaper at 37.2 percent and radio at 42.6 percent. Social media was only rated at 30.2 percent although industry surveys trend upward for the future of social media communication.

More specific information is contained in Appendix G.

Nord Area Survey

In addition to the public outreach survey described above, another survey was developed and distributed via direct mailings to the residents of the Nord area. This area experiences repetitive and frequent flooding during periods of heavy rains which adversely impact area residents. During heavy rain storms the community of Nord is impacted by sheet flooding which has flooded many homes several times. More specifically, homes in the vicinity of Nord Highway, Carmen Lane and Victor Drive have been impacted every few years. Recent flood events include 1996, 2005, 2008 and 2012. The most recent flooding occurred on December 2, 2012

and affected at least 11 homes. Flooding has been from a few inches into the garage to 18 inches in one home. As a result, this area was identified by Butte County as a good candidate for a home elevation program. To evaluate interest in an elevation project and to obtain better damage data for any resulting FEMA grant applications, a survey was developed by the County and input solicited from Nord residents. A copy of the survey is included in Appendix G. Response to the survey was significant, and a mitigation action project for elevation of homes was developed and is included in Chapter 5, the Mitigation Strategy Section of this plan.

Planning Step 3: Coordinate with Other Departments and Agencies

Early in the planning process, the HMPC determined that data collection, mitigation strategy development, and plan approval would be greatly enhanced by inviting other local, state and federal agencies and organizations to participate in the process. Based on their involvement in hazard mitigation planning, their landowner status in the County, and/or their interest as a neighboring jurisdiction, representatives from the following groups were invited to participate on the HMPC:

- Butte County and all Departments
- Cities in Butte County
- Water Districts
- Irrigation Districts
- Sewer Districts
- Fire Departments
- School Districts
- Red Cross
- National Weather Service
- Utility Districts
- California Department of Water Resources
- California NFIP Coordinator
- NFIP/CRS Program Coordinators
- CAL FIRE
- Butte Fire Safe Council
- US Corps of Engineers
- Sutter County Emergency Management Agency
- Sutter Butte Flood Control Agency

Coordination with key agencies, organizations, and advisory groups throughout the planning process allowed the HMPC to review common problems, development policies, and mitigation strategies as well as identifying any conflicts or inconsistencies with regional mitigation policies, plans, programs and regulations. For example, in conjunction with the kick off meetings, several key stakeholder/agency meetings/conference calls were held at the beginning of the project to solicit input and to identify and obtain data at the beginning of the project. This included initial

discussions with: Cal EMA, DWR, Cal Fire, Butte County Fire Safe Council, and the Sutter-Butte Flood Control Agency (SBFCA). Coordination with these key agencies continued throughout the project. For example, representatives from Cal EMA attended most of the HMPC meetings where they helped present, answered questions and provided input and support on the LHMP process and plan requirements and provided details as requested on other related programs, such as FEMA grant programs. Likewise, DWR was utilized to obtain data on other flood and water resource programs within the region as well as to access information on the NFIP specific to the planning area and participating jurisdictions. FEMA was consulted to obtain additional mapping and certification data for DFIRMs and levee status to support the risk assessment process. The SBFCA provided input on flood data and flood control projects specific to Butte County watersheds. The Butte County Fire Safe Council provided detailed information on the status of wildfire mitigation within the County. Also through their attendance at HMPC meetings these key stakeholders and agencies provided ongoing information and data as requested to support the overall plan development process.

Similar coordination efforts were made towards the end of the process to discuss input to the draft plan. Phone calls and emails were used during plan development to directly coordinate with key individuals representing other regional programs. The County OEM planner also worked as the liaison to this plan and other regional planning efforts to ensure successful coordination and input with other ongoing plans.

As part of the public review and comment period for the draft plan, key stakeholders and agencies were again specifically solicited to provide any final input to the draft plan document. This input was solicited both through membership on the LHMP committee and by direct emails to key groups and associations to review and comment on the plan. As part of this targeted outreach, these key stakeholders were also specifically invited to attend the final public meetings to discuss any outstanding issues and to provide input on the draft document and final mitigation strategies. Individuals solicited (via a direct email, with a link to the plan on the County website) as part of this targeted outreach for input on the draft plan included: American Red Cross, Sutter Butte Flood Control Agency, United States Department of Agriculture, Butte Creek Watershed Conservancy, Sacramento River Preservation Trust, Butte County Resource Conservation District, Butte County Fire Safe Council, Cal EMA, Cal DWR, USACE, Cal Fire, National Weather Service, Del Oro Water Company, Durham Mutual Water Company, PG&E, United States Forest Service, Berry Creek Rancheria, Mooretown Rancheria, Enterprise Rancheria, and Emergency Managers for neighboring communities. Appendix A includes documentation of these email solicitations

In addition, through the public meetings conducted at the beginning of the planning process, members of the public and stakeholders were invited to participate through public outreach activities. Some of these people participated on the HMPC. More information is shown in Appendix A.

The HMPC also used technical data, reports, and studies from the following agencies and groups:

- CAL EMA
- CAL FIRE
- California Department of Finance
- California Department of Water
- California Division of Dam Safety
- California Geological Survey
- California Highway Patrol
- California Register of Historic Places
- FEMA
- Invasive Species Council of California
- Library of Congress
- National Oceanic and Atmospheric Association
- National Performance of Dams Program
- National Register of Historic Places
- National Resource Conservation Service
- National Response Center
- National Weather Service
- Spatial Hazard Events and Losses Database for the United States (SHELDUS)
- United States Army Corps of Engineers
- United States Bureau of Land Management
- United States Department of Agriculture
- United States Drought Impact Reporter
- United States Farm Service Agency
- United States Forestry Service
- United States Geological Survey
- Western Regional Climate Center

These and other documents were reviewed and considered, as appropriate, during the collection of data to support Planning Steps 4 and 5, which include the hazard identification, vulnerability assessment, and capability assessment. Data from these plans and ordinances were incorporated into the risk assessment and hazard vulnerability sections of the plan. Where the data from the existing studies and reports is used in this plan update, the source document is referenced throughout this plan update. The data was also used in determining the capability of the community in being able to implement certain mitigation strategies. Appendix B References provides a detailed list of references used in the preparation of this plan update.

Several opportunities were provided for the groups listed above to participate in the planning process. At the beginning of the planning process, invitations were extended to these groups to

actively participate on the HMPC. Specific participants from these groups are detailed in Appendix A. Others assisted in the process by providing data directly as requested in the Data Collection Workbook or through data contained on their websites or as maintained by their offices. Further as part of the public outreach process, all groups were invited to attend the public meetings and to review and comment on the plan prior to submittal to CAL EMA and FEMA. In addition, as part of the review of the draft plan, key agency stakeholders were contacted and their comments specifically solicited to provide input on the draft plan as documented in Appendix A and detailed above.

Other Community Planning Efforts and Hazard Mitigation Activities

Coordination with other community planning efforts is also paramount to the success of this plan. Hazard mitigation planning involves identifying existing policies, tools, and actions that will reduce a community's risk and vulnerability to hazards. Butte County uses a variety of comprehensive planning mechanisms, such as general plans and ordinances, to guide growth and development. Integrating existing planning efforts and mitigation policies and action strategies into this plan establishes a credible and comprehensive plan that ties into and supports other community programs. The development of this plan incorporated information from the following existing plans, studies, reports, and initiatives as well as other relevant data from neighboring communities and other jurisdictions.

- Butte County General Plan
- Butte County Drought Preparedness Plan
- Butte County Emergency Operations Plan
- Butte County Evacuation Plan
- Butte County Habitat Conservation Plan
- Butte County Stormwater Management Plan
- City of Biggs General Plan
- City of Chico General Plan
- City of Gridley General Plan
- City of Oroville General Plan
- Town of Paradise General Plan
- California State Hazard Mitigation Plan
- California State Drought Contingency Plan
- Paradise Irrigation District Urban Water Management Plan
- Paradise Irrigation District Forest Assessment
- Butte County Agricultural Commissioner Reports
- Sutter Butte Flood Control Agency Final Engineer's Report
- Sutter Basin Feasibility Study Floodplain Management Plan
- US Army Corp of Engineers Cherokee Canal Project
- US Army Corp of Engineers Sutter Bypass System Report
- Butte Unit Fire Plan 2012

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- Butte County Stormwater Management Plan 2010 Report
 - Central Valley Flood Control Project Local Management Area Map
 - California Aquatic Invasive Species Management Plan

A key example of coordinating with other planning efforts is the coordination of this LHMP with the Sutter-Butte Flood Control Agency plans. This is critical for two important reasons. First, flooding problems don't stop at corporate or jurisdictional boundaries and evaluating flood problems on a watershed basis provides a comprehensive approach to understanding and addressing identified flood issues. Second, a successful mitigation strategy requires that these planning efforts be coordinated.

Another example of coordinating with other planning efforts is the coordination of this LHMP with the Butte Regional Habitat Conservation Plan. This is critical for two important reasons as well. First, natural hazards such as flood and wildfire do not just affect areas populated and developed by humans. Secondly, a successful mitigation strategy requires that these planning efforts be coordinated. As of the creation of this plan, the HCP was in process, and was available at <http://www.buttehcp.com/>.

Other documents were reviewed and considered, as appropriate, during the collection of data to support Planning Steps 4 and 5, which include the hazard identification, vulnerability assessment, and capability assessment.

3.2.2 Phase 2: Assess Risks

Planning Steps 4 and 5: Identify the Hazards and Assess the Risks

AMEC led the HMPC in a research effort to identify, document, and profile all the hazards that have, or could have, an impact on the planning area. Data collection worksheets and jurisdictional annexes were developed and used in this effort to aid in determining hazards and vulnerabilities and where the risk varies across the planning area. Geographic information systems (GIS) were used to display, analyze, and quantify hazards and vulnerabilities. The HMPC also conducted a capability assessment to review and document the planning area's current capabilities to mitigate the risk and vulnerability of each participating jurisdiction to each identified hazard. By collecting information about existing government programs, policies, regulations, ordinances, and emergency plans, the HMPC could assess those activities and measures already in place that contribute to mitigating some of the risks and vulnerabilities identified. A more detailed description of the risk assessment process, methodologies, and results are included in Chapter 4 Risk Assessment.

3.2.3 Phase 3: Develop the Mitigation Plan

Planning Steps 6 and 7: Set Goals and Review Possible Activities

AMEC facilitated brainstorming and discussion sessions with the HMPC that described the purpose and process of developing planning goals and objectives, a comprehensive range of mitigation alternatives, and a method of selecting and defending recommended mitigation actions using a series of selection criteria. This information is included in Chapter 5 Mitigation Strategy. Additional documentation on the process the HMPC used to develop the goals and strategy is in Appendix C.

Planning Step 8: Draft an Action Plan

Based on input from the HMPC regarding the draft risk assessment and the goals and activities identified in Planning Steps 6 and 7, AMEC produced a complete first draft of the plan. This complete draft was posted for HMPC review and comment on the project file transfer protocol (ftp) website. Other agencies were invited to comment on this draft as well. HMPC and agency comments were integrated into the second public review draft, which was advertised and distributed to collect public input and comments. AMEC integrated comments and issues from the public, as appropriate, along with additional internal review comments and produced a final draft for the CAL EMA and FEMA Region IX to review and approve, contingent upon final adoption by the governing boards of each participating jurisdiction.

3.2.4 Phase 4: Implement the Plan and Monitor Progress

Planning Step 9: Adopt the Plan

In order to secure buy-in and officially implement the plan, the plan was adopted by the governing boards of each participating jurisdiction using the sample resolution contained in Appendix D.

Planning Step 10: Implement, Evaluate, and Revise the Plan

The true worth of any mitigation plan is in the effectiveness of its implementation. Up to this point in the planning process, all of the HMPC's efforts have been directed at researching data, coordinating input from participating entities, and developing appropriate mitigation actions. Each recommended action includes key descriptors, such as a lead manager and possible funding sources, to help initiate implementation. An overall implementation strategy is described in Chapter 7 Plan Implementation and Maintenance.

Finally, there are numerous organizations within the Butte County Planning Area whose goals and interests interface with hazard mitigation. Coordination with these other planning efforts, as addressed in Planning Step 3, is paramount to the ongoing success of this plan and mitigation in

Butte County and is addressed further in Chapter 7. A plan update and maintenance schedule and a strategy for continued public involvement are also included in Chapter 7.

Implementation and Maintenance Process: 2007

The 2007 Butte County Local Hazard Mitigation Plan included a process for plan maintenance. This process as set forth in the 2007 plan was generally followed, with some variation.

Butte County OEM, with assistance from the Hazard Mitigation Plan Evaluation Committee, was responsible for coordinating the review and maintenance of the plan. The maintenance process called for an annual review and update of the plan as warranted and a 5-year formal plan update to be submitted to CAL EMA and FEMA Region IX. Led by County OEM, the previous planning committee determined which jurisdictions would be participating in this Update. Based on the 2007 maintenance process, factors that were considered in evaluating whether a Plan Update or revisions were required included:

- Relevance of MHMP goals and objectives to the evolving situation in Butte County;
- Consistency of MHMP goals and objectives with changes in state and federal laws; regulations or policies
- Relevance of MHMP goals and objectives to current and expected conditions;
- New technologies; and
- New information.

Based on several of these factors, one key factor being new 2008 FEMA guidance for updating LHMP plans, as well as an evaluation of the data and analysis included in the 2007 plan, it was determined that both a rework and update of the 2007 plan was required. Section 2, What's New, describes in detail the changes incorporated in this LHMP Update for the Butte County Planning Area.

Although a formal Hazard Mitigation Plan Evaluation Committee was not established and annual reviews were not conducted through a formal process, the overall intent for reviewing and maintaining the 2007 plan was accomplished through various other venues and means. During the period following adoption of the plan by participating jurisdictions, the reviews and coordination were conducted on a more informal basis through emails, telephone conversations, and attendance at various county, agency, public, and stakeholder meetings.

Specifically, Butte County OEM made a commitment to plan implementation through collaborating with other local, state, and federal mitigation partners. Examples of these efforts include the establishment and coordination with FEMA on flood hazard DFIRM mapping; coordination with regional partners such as the Sutter Butte Flood Control Agency on large-scale flood control projects; and ongoing work with the Butte County Fire Safe Council on wildfire mitigation and post-fire recovery efforts. The County OEM staff also worked closely with the cities on flood and drainage issues as well as wildfire mitigation. Further, there are cooperative technical partnership agreements with the cities, neighboring Counties, and other agencies such

as North Valley Animal Disaster Group, Caring Choices (Emergency Volunteer Center and volunteer training) and Far Northern Regional Center (works with individuals with developmental disabilities). There is also much coordination with State and Federal partners, such as California DWR, Cal Fire, Cal EMA, CHP, and Chico State University with respect to local issues. Internal outreach and coordination efforts included providing information and awareness with other county departments and participating jurisdictions on FEMA's grant programs and other annual grant opportunities; informing and coordinating hazard mitigation related training opportunities with Cal EMA and California DWR. All of these efforts assisted with the funding and implementation of priority projects from the 2007 plan.

Although the County and participating jurisdictions to the 2007 plan implemented many of the mitigation action projects identified in the mitigation strategy as detailed in Chapter 2 of this plan through close coordination with various mitigation partners, the 2007 plan itself was not specifically incorporated into existing planning mechanisms for each of the participating jurisdictions. This was due to several factors which primarily included the timing of other community plan development processes that could utilize the type of data developed and included in the 2007 plan. One of the factors considered in determining to do a rework of the plan for this plan update was to make it more robust for future incorporation. In fact, during the plan update process for this current plan, the updated risk assessment data for each of the jurisdictions were utilized in the EOPs being updated during the same timeframe. After adoption of this 2013 LHMP, the planning team and each participating jurisdiction will work to ensure that the elements of this update continue to be incorporated into other planning mechanisms.

With respect to the formal five-year update, Butte County led the effort and obtained funding to update the existing mitigation plan. Based on the plan update criteria detailed in the 2007 plan and outlined above, several of these factors, it was determined that both a rework and update of the 2007 plan was required. A primary factor driving the update process was the new 2008 FEMA guidance for updating LHMP plans, as well as an evaluation of the data, analysis, and mitigation strategy included in the 2007 plan. Section 2, What's New, of this plan update describes in detail the changes incorporated in this LHMP Update for the Butte County Planning Area.

The plan maintenance process from 2007 also discussed keeping the community, public, and other stakeholders involved during plan maintenance. In 2012, once the formal plan update process began, a defined process for involving the community was followed as detailed above in Planning Steps 2 and 3.