



## CHAPTER 5: PLAN MAINTENANCE





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# OVERVIEW OF THE “PLAN MAINTENANCE” CHAPTER

“Plan Maintenance” implies an ongoing effort to monitor and evaluate plan implementation and to update the plan as progress, roadblocks, or changing circumstances are recognized. The “Plan Maintenance” Chapter of the Merced Local Hazard Mitigation Plan (MHMP) includes a method and schedule for monitoring, evaluating, and updating the Plan at least every 5 years. The “Plan Maintenance” Chapter also includes an explanation of how the City of Merced will incorporate the mitigation strategies into existing planning mechanisms, such as the General Plan, Zoning Code, Capital Improvement Programs, etc. Lastly, the “Plan Maintenance” Chapter outlines the City’s continuing public participation process for the Plan. This chapter contains the following sections:

## 5.1 ADOPTION, MONITORING, EVALUATION, AND UPDATING

## 5.2 IMPLEMENTATION

## 5.3 CONTINUED PUBLIC INVOLVEMENT

At their public meeting of April 19, 2013, the *Plan Leadership Team* provided the City of Merced *Disaster Council*, attending stakeholders, and members of the public an overview of the draft “Plan Maintenance” Chapter of the draft Merced Hazard Mitigation Plan (MHMP). Comments were received and the draft was amended to reflect the concerns of the Disaster Council and public.



## 5.1 Adoption, Monitoring, Evaluation, and Updating

### Introduction

Upon adoption of the plan, the monitoring, evaluation, and updating phases of the Merced Hazard Mitigation Plan (MHMP) will begin, yielding projects that will reduce damage from future natural hazard events.



## 5.1.1 Adopting the Plan

Once the Plan has been recommended for adoption by the Disaster Council, the project’s Technical and Plan Preparation Team submits the LHMP to Cal EMA and the Federal Emergency Management Agency (FEMA) for review. This review will address the federal criteria outlined in FEMA Interim Final Rule 44 CFR Part 201. Upon acceptance by FEMA, the City will gain eligibility for Hazard Mitigation Grant Program funds. The process is as follows:

- State and Federal Plan Approval**—The draft plan was submitted to the State Emergency Management Agency (Cal EMA), who forwarded their comments and MHMP to FEMA, who in turn reviewed, commented and provided one combined review and letter to the City. The MHMP was revised to address these comments, and then sent directly to FEMA for review and approval. ON August 6, 2014, FEMA determined that the plan is eligible for approval pending approval by the City of Merced.
- Local Adoption**—Within one calendar year of receipt of an “approval, pending adoption” from FEMA, upon recommendation by the Disaster Council, the Merced City Council adopted the MHMP by resolution at their hearing of March 16, 2015. The City forwarded the official adoption paperwork to FEMA, and the MHMP became “officially approved”/Effective on March 19, 2015 (see inside cover of the plan).
- General Plan Consistency**— Under AB 2140, adopting the FEMA “Approved” LHMP into the Safety Element of the General Plan is optional. However, doing so entitles compliant communities to additional available recovery reimbursements after a major disaster declaration. It also



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entitles compliant communities to receive priority consideration for hazard mitigation grant funding. The Local Adoption noted above included the action to include the MHMP as part of the *Merced Vision 2030 General Plan*.

Although the MHMP was adopted by the City Council on March 16, 2015, it was not officially approved by FEMA until March 19, 2015.

Once adopted, the City Fire Department will have the responsibility of monitoring, evaluating and updating the MHMP Plan.



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## 5.1.2 Monitoring the Plan

### MITIGATION PROGRESS MONITORING



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The Mitigation Strategy (Chapter 5) of the Merced Hazard Mitigation Plan (MHMP) identifies mitigation actions that have been prioritized based on the loss estimates and the probability of each hazard, which will typically be implemented according to the priority rank. To thoroughly track hazard mitigation status, the City of Merced must continuously monitor and document the progress of the implementation of the mitigation actions.

To facilitate this monitoring process, Table 5-1: “MHMP Action Item Implementation” has been developed to provide a tool for monitoring overall progress of each recommended mitigation action listed in the Plan. Each recommended action in the MHMP is included in the table.

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## ANNUAL ASSESSMENTS OF THE PLAN

Planning is an ongoing process and as such, the Merced Hazard Mitigation Plan (MHMP) should be treated as a living document that must grow and adapt in order to keep pace with the City's changes.

### ***Monitoring: Responsible Agent and Schedule***

In order to monitor progress and update the mitigation strategies identified in the action plan, the *Disaster Council*, led by the Deputy Director of Emergency Services, will revisit the MHMP annually and after a significant hazard event. Prior to the 5<sup>th</sup> year of the revision cycle, these annual observations should be compiled and reviewed to determine what changes should be implemented in the MHMP update process.

### ***Monitoring: Methodology***

This assessment will be completed to document that changes in the basis for the site hazards (i.e., updated FIRM maps, new seismic studies, etc.) or the installation and purchase of new equipment (i.e., back-up generators, emergency response equipment, etc.) do not have any effect on City hazard vulnerabilities that would impact the conclusions or actions associated with the MHMP. Additionally, any significant modification to City land use should be considered with respect to any possible impact on the MHMP. The results of the annual evaluations should be folded back into each phase of the planning process and should yield decisions on how (or whether) to update each section of the Plan.

**Sample: Table 5-1 – Merced Hazard Mitigation Plan Action Item Implementation**

Action ID No.: _____ _____				
Year	Responsible Department	Implementation Timeframe	Status	Details/Status Summary
Year 1	Public Works	Ongoing	Open	
<b>Changes/Updates:</b>				
Year 2				
Year 3				
Year 4				
Year 5				



### 5.1.3 Evaluating the Plan

The Merced Hazard Mitigation Plan (MHMP) will be evaluated on an annual basis to determine the effectiveness of programs, and to reflect changes in land development or programs that may affect mitigation priorities.



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#### ***Evaluation: Responsible Agents***

The City Manager or his designee will be responsible for contacting the *Disaster Council* and organizing the annual meeting. The coordinating organizations responsible for the various action items will report annually on the status of their projects, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.

The *Disaster Council* will be responsible for evaluating the progress of the mitigation strategies in the Plan. The *Disaster Council* will review the goals, objectives and action items to determine their relevance to changing situations in the City, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The *Disaster Council* will also review the Risk Assessment portion of the Plan to determine if this information should be updated or modified, given any new available data.

#### ***Evaluation Methodology***

Evaluation of progress will be achieved by monitoring changes in vulnerabilities identified in the plan by the responsible entity listed in the Mitigation Action Plan (also listed in Table 5-1 on the prior page). Changes in vulnerability can be identified by noting:

- Decreased vulnerability as a result of implementing recommended actions;

- Increased vulnerability as a result of failed or ineffective mitigation actions, and/or;
- Increased vulnerability as a result of new development.

In order to best evaluate any changes in vulnerability as a result of plan implementation, the following processes will occur:

- A representative from the responsible office identified for each mitigation measure will be accountable to track and report the project status to the Disaster Council on an annual basis. The representative will provide input on whether the project as implemented meets the defined goals and is likely to be successful in reducing vulnerabilities.
- If the project does not meet identified goals, the Disaster Council will determine what additional measures may be implemented, and an assigned individual will be responsible for defining project scope, implementing the project, monitoring success of the project, and making any required modifications to the plan.

#### ***Evaluation: Schedule and Timeline***

A meeting to review and assess the evaluations prepared by a representative from the responsible office identified in each mitigation measure will occur annually, at a date and place selected by the Deputy Director of Emergency Services. Additional meetings may be called as necessary. The Deputy Director of Emergency Services will compile the results of the annual assessments in preparation for use in the 5-year update process.

## 5.1.4 Updating the Plan

### ***Plan Update: Schedule***

Every five years the updated Plan will be submitted to the State Hazard Mitigation Officer and the Federal Emergency Management Agency for review. The City Manager may assign the duty of updating the plan to the Deputy Director of Emergency Services, who will be responsible for initiating the MHMP plan 5-year update and will consult with plan stakeholders and members of the *Disaster Council*. The Deputy Director of Emergency Services will have three months to make appropriate changes to the Plan before re-submitting it to the *Disaster Council* for recommendation, and presenting it to the City Manager for approval and action by the City of Merced City Council. The *Disaster Council* will then submit the update to the state and FEMA Region IX, unless circumstances (e.g., changing regulations) require a change to this schedule.



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### ***Plan Update: Focus and Methodology***

Updates to the MHMP will:

- Consider changes in vulnerability due to project implementation.
- Document success stories where mitigation efforts have proven effective.
- Document areas where mitigation actions were not effective.
- Document any new hazards that may arise or were previously overlooked.
- Incorporate new data or studies on hazards and risks.
- Incorporate new capabilities or changes in capabilities.
- Incorporate growth and development-related changes to inventories.

- Incorporate new project recommendations or changes in project prioritization.

Changes will be made to the plan to accommodate projects that have failed or are not considered feasible after a review of their consistency with established criteria, time frame, community priorities, and/or funding resources. Implementation projects that were not ranked high but were identified as potential mitigation strategies will be reviewed as well during the monitoring and update of this plan to determine feasibility of future implementation.

In keeping with the process of adopting the plan, a public involvement process to receive public comment on plan maintenance and updates will be held during the annual review period, and the 5-year Plan Update will be adopted by the City Council. The Deputy Director of Emergency Services will also notify all holders of the City's Plan when changes have been made.

### ***Plan Addendum***

Appendix D of the plan includes updated Risk Assessment information concerning drought. During the first update to the MHMP, this information should be incorporated into the Risk Assessment.

## 5.2 Implementation

### Introduction

The MHMP will be implemented by integrating it into existing City programs such as community development, capital improvement planning, flood prevention, and emergency response plans and activities. Implementation will also occur through prioritization of hazard mitigation actions and alignment with potential funding sources.



## 5.2.1 Planning Mechanisms

An important implementation mechanism that is highly effective and low-cost is incorporation of the MHMP recommendations and their underlying principles into other plans and mechanisms. The City and participating jurisdictions have and continue to implement policies and programs to reduce losses to life and property from natural hazards. This plan builds upon the momentum developed through previous and related planning efforts and mitigation programs and recommends implementing projects, where possible, through these and other existing planning mechanisms:



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- *Merced Vision 2030 General Plan*
- Merced Municipal Code
- Flood/Storm Water Management Plans
- Fire Plans
- Drought Plans
- Capital Improvement Plans and Budgets
- Other plans, regulations, and practices with a mitigation focus

The City can address statewide hazard planning goals through Planning and Zoning tools, the City's National Flood Improvement Program, Capital Improvement Plans, and City Building and Safety Codes.

### ***Planning and Zoning***

The Merced Hazard Mitigation Plan (MHMP) provides a series of recommendations - many of which are closely related to the goals and objectives of existing planning programs. The City will have the opportunity to implement recommended mitigation action items through existing programs and procedures.

Additionally, Implementing Action S-1.1.g of the General Plan calls for the preparation and updates of a Local Hazard Mitigation Plan for the City and once adopted, the MHMP will thus be incorporated by reference into the General Plan. The City has and will continue to implement policies and programs to reduce losses to life and property from natural hazards.

### ***National Flood Improvement Program***

The City Engineer, who serves as the City's "Floodplain Coordinator," will work collaboratively with the City's Chief Building Official and Planning Manager to regulate development and construction of structures in a manner consistent with the City's Floodplain Ordinance. During the initial five-year implementation period of the MHMP, these entities along with Merced County officials will make any necessary adjustments to planning documents and related ordinances, in order to implement the recommended actions of the MHMP, including the need to align new State of California 200-year floodplain requirements.

### ***Building and Safety Codes***

The City's Inspection Services Division is responsible for administering the Building & Safety Codes. The City's Building Official has opportunities to work with other agencies at the state level to review, develop and ensure Building & Safety Codes that are adequate to mitigate or prevent damage by natural hazards. This is to ensure that life-safety criteria are met for new construction.

### ***Capital Improvement Plan***

The goals and action items in the mitigation plan may be achieved through activities recommended in the City's Capital Improvement Plans (CIP). Various City departments develop CIP plans, and review them on an annual basis. City Department Directors, who also sit on the Disaster Council, will identify recommended action items in the

MHMP consistent with CIP planning goals and integrate them where appropriate.

### PROCESS TO INCORPORATE MHMP INTO PLANNING MECHANISMS

Within a year of formal adoption of the MHMP, the recommendations listed above will begin to be incorporated into existing planning mechanisms. The annual MHMP evaluation meetings of the Disaster Council provide an opportunity for Department Heads that oversee these mechanisms to report back on the progress made on the integration of mitigation planning elements into these various mechanisms.



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Efforts will be made to monitor the progress of mitigation projects implemented through these other planning mechanisms and where appropriate, priority projects should be incorporated into updates of this MHMP.

### NETWORKING CAPACITY OF THE DISASTER COUNCIL

Mitigation is most successful when it is incorporated into the day-to-day functions and priorities of government and development. This integration is accomplished by constant, pervasive, and energetic efforts to network, identify, and highlight the multi-objective, win-win benefits to each program and the Merced community, and its stakeholders. An opportunity exists in the Disaster Council for such networking to occur, as many of the City Department Heads sit on this Council.

## 5.2.2 Economic Analysis of Mitigation Projects

FEMA's approaches to identify the costs and benefits associated with natural hazard mitigation strategies, measures, or projects fall into two

general categories: benefit/cost analysis and cost-effectiveness analysis.

### *Benefit/Cost Analysis*

Conducting benefit/cost analysis for a mitigation activity can assist communities in determining whether a project is worth undertaking now, in order to avoid disaster-related damages later.

### *Cost-Effectiveness Analysis*

Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, City Staff, with oversight from the Disaster Council, may use a FEMA-approved benefit/cost analysis approach to identify and prioritize mitigation action items.

## 5.2.3 Funding Opportunities

Simultaneous to these efforts, it is important to maintain a constant monitoring of funding opportunities that can be leveraged to implement some of the more costly recommended actions. This will include creating and maintaining a bank of ideas on how any required local match or participation requirement can be met. When funding does become available, the MHMP will be in a position to capitalize on the opportunity. Funding opportunities to be monitored include special pre- and post-disaster funds, special district budgeted funds, state or federal earmarked funds, and grant programs, including those that can serve or support multi-objective applications.

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## 5.3 Continued Public Involvement

### Introduction

Opportunities for public input in *Plan Maintenance* activities will be provided, and take the form of public meetings, plan accessibility, and continued actions of the City's Disaster Council.



### 5.3.1 Disaster Council Activity

With adoption of this plan, the Disaster Council is tasked with plan implementation and maintenance duties, including:

- Act as a forum for hazard mitigation issues.
- Keep the concept of mitigation in the forefront of community decision making by identifying plan recommendations when other community goals, plans, and activities overlap, influence, or directly affect increased community vulnerability to disasters.
- Maintain a vigilant monitoring of multi-objective cost-share opportunities to help the community implement the plan’s recommended actions for which no current funding exists.
- Monitor and assist in implementation and update of this plan.
- Inform and solicit input from the public.

The Disaster Council is an advisory body, consisting of representatives from various City Departments appointed by the City Manager. One of its primary duties is to see the MHMP successfully carried out and to report to the City Council and the public on the status of plan implementation and mitigation opportunities. Other duties include reviewing and promoting mitigation proposals, considering stakeholder concerns about hazard mitigation, passing concerns on to appropriate entities, and posting relevant information on the City website.

The Disaster Council should meet at least once annually to perform the above noted tasks. Disaster Council meetings will provide an opportunity to discuss the progress of the action items and maintain the partnerships that are essential for the sustainability of the Plan.

### 5.3.2 Public Input Opportunities

The City is dedicated to involving the public directly in the monitoring, evaluation, and updates of the MHMP. The update process provides an opportunity to publicize success stories from the plan implementation and seek additional public comment.



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**Disaster Council**

The *Disaster Council* is a standing body, and will continue to function after adoption of the MHMP. Members will be responsible for the annual review and required 5-year update of the plan that invite participation from citizens and stakeholders of the MHMP.

**Public Outreach Opportunities and Methods**

Noticed public hearing(s) to receive public comment on plan maintenance and updating will be held. When the Disaster Council meets to discuss plan maintenance and future plan update, they will coordinate with all stakeholders participating in the planning process—including those that joined the committee since the planning process began. The plan maintenance and update process will include continued public and stakeholder involvement and input through attendance at designated committee meetings, web postings, and press releases to local media.

The public will also have the opportunity to provide feedback about the Plan. Copies of the Plan will be catalogued and kept at all of the participating agencies in the City and County. The existence and location of these copies will be publicized in the City newsletter which reaches every utility customer in the City. In addition, copies of the Plan and any proposed changes will be posted on the City’s Website. This site will also contain an email address and phone number to which people can direct their comments and concerns.

