CHAPTER 1: EXECUTIVE SUMMARY

CHAPTER 1: EXECUTIVE SUMMARY

OVERVIEW OF THE“EXECUTIVE SUMMARY” CHAPTER

1.1 LOCAL HAZARD MITIGATION PLANNING

1.2 VISION AND GOALS OF THE LOCAL HAZARD MITIGATION PLAN

1.3 HOW THE LOCAL HAZARD MITIGATION PLAN WAS DEVELOPED

1.4 ORGANIZATION OF THE HAZARD MITIGATION PLAN

1.5 RECOMMENDED HAZARD MITIGATION STRATEGIES

1.1 Local Hazard Mitigation Planning

1.1.1 Purpose of Benefits of the Plan

Plan Purpose

At times, natural hazards are unpredictable, and the reality is they can cause significant damage to a community. More often than not, communities are faced with having to deal with the aftermath of an unwanted hazard that devastates areas of public infrastructure, businesses, and the environment. Each year, natural disasters in the United States take the lives of hundreds of people and injure thousands more, and taxpayers pay billions of dollars annually to help communities, organizations, businesses, and individuals recover from these events. While we cannot completely prevent disasters from happening, their effects can be reduced or eliminated through well-organized public education and awareness efforts, preparedness and mitigation. For those hazards which cannot be fully mitigated, the community must be prepared to provide efficient and effective response and recovery.

It is impossible to predict exactly when and where disasters will occur or the extent to which they will impact the City. However, with careful planning and collaboration among public agencies, stakeholders, and citizens, it is possible to minimize losses that can occur from disasters. Proactive mitigation planning will help reduce the cost of disaster response and recovery to the community and its property owners by protecting critical community facilities, reducing liability exposure, and minimizing overall community impacts and disruption.

The Disaster Mitigation Act (DMA; Public Law 106-390) is the latest federal legislation enacted to encourage and promote proactive, pre-disaster planning as a condition of receiving financial assistance under the Robert T. Stafford Act. The DMA emphasizes planning for disasters before they occur. The results of a three-year, congressionally mandated independent study to assess future savings from mitigation activities provides evidence that mitigation activities are highly cost-effective.

Plan Benefits

The City of Merced developed this Merced Hazard Mitigation Plan (MHMP) in an effort to reduce future loss of life and property resulting from disasters. The MHMP is a tool for decision-makers to direct mitigation activities and resources. This MHMP was also developed to allow the City to be eligible for federal disaster assistance funds, as well as earning points from the National Flood Insurance Program's Community Rating System to lower flood insurance premiums communitywide.

Through the implementation of the Plan's nine recommended strategies, the City of Merced can strive to become disaster-resistant through hazard mitigation.

1.2 Vision and Goals of the Hazard Mitigation Plan

1.2.1 Plan Goals and Objectives

Hazard Mitigation Plan Goals

At their July 13, 2012, Disaster Council meeting, the Disaster Council reviewed and confirmed the Plan Leadership Team's (PLT) draft selection of the Plan's vision and goal statements.

Plan goals help to guide the direction of future activities aimed at reducing risk and preventing loss from hazards. They represent a long-term vision for hazard reduction or enhancement of mitigation capabilities.

The PLT conducted a review of existing Plans to assess whether or not the goals listed in these plans conflicted with the draft LHMP goals to reduce the effects of hazards. These plans include:

- 2010 State of California Hazard Mitigation Plan
- Merced Vision 2030 General Plan
- City of Merced Emergency Operations Plan
- Merced County Hazardous Waste Management Plan

Listed below are the goals of the Merced Hazard Mitigation Plan to reduce or avoid long-term vulnerabilities and effects of the profiled hazards addressed in this plan's risk assessment.

Goal 1: Provide protection for people's lives from hazards.

Goal 2: Minimize or reduce damage to property.

Goal 3: Minimize disruption of essential services, facilities, and infrastructure.

Goal 4: Maintain, enhance, and restore the natural environment's capacity to deal with the impacts of disasters.

Goal 5: Promote hazard mitigation as an integrated policy.

Goal 6:Increase public awareness.

Plan Objectives

The Plan Leadership Team's (PLT) set out to develop a plan that would meet these objectives:

- The plan would meet state and federal requirements specified under DMA;
- Utilize Community Rating System (CRS) guidelines so that the City of Merced could potentially reduce insurance costs for local residents living in the designated floodplains;
- The plan would coordinate existing ongoing plans and programs so that high-priority initiatives and projects to mitigate possible disaster impacts would be funded and implemented; and,
- The plan would create a linkage between the MHMP and established plans such as the City's general, specific, and master plans so that they can work together in achieving successful mitigation for the City.

1.3 How the Local Hazard Mitigation Plan was Developed

1.3.1 Planning Process

Six-Step Process

Hazard mitigation planning is the process through which natural hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies to lessen impacts are determined, prioritized, and implemented.

The writing effort began with drafting the Planning Process section, and then sequentially through a six-step process of preparing a Mitigation Hazard Plan.

- Where are the hazards?
- What are the risks?
- What is being done?
- Where are the gaps?
- What actions can be taken?
- What are our priorities?

Guiding Documents and Community Members

The order of the plan and activities was strongly influenced by the FEMA "How-to" Guides, the July 2008 Program Guidance, and the October 2011 Local Mitigation Plan Review Guide. The draft plan was reviewed by the Project Leadership Team, Disaster Council, and affected and interested public agencies. The public was also provided opportunities to review and comment (See Section 2.3, Chapter 2). An administrative draft was prepared incorporating these comments, and completed in March 2013. In May 2013, the Disaster Council's recommended MHMP was provided to the State Hazard Mitigation Officer and FEMA staff for review. A final draft was prepared and completed in the summer of 2013 (pending response from Cal-EMA and FEMA), and then provided to the City Council of the City of Merced for final adoption in the fall 2013.

This plan documents the City of Merced's hazard mitigation planning process, identifies relevant hazards and risks, and identifies the strategy the City will use to decrease vulnerability and increase resiliency and sustainability. The MHMP is a single-jurisdictional plan that geographically covers everything within the City's 2012 Specific Urban Development Plan (SUDP) and Sphere of Influence (SOI) boundaries (hereinafter referred to as the MHMP planning area). This plan was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 (Public Law 106-390). Hereafter, these requirements and regulations will be referred to collectively as the Disaster Mitigation Act (DMA).

1.3.2 Disaster Council

Authority

A hazard mitigation plan is one of the best ways to enhance collaboration and gain support among the parties whose interests might be affected by hazard losses. By working together, a broad range of stakeholders can identify and create partnerships that pool resources to achieve a common vision for the community. The scope of work established for this process was built around this concept by the formation of a *Disaster Council* (DC).

The powers and duties of the Disaster Council are codified in Title 8, Chapter 20 of the Merced Municipal Code; they are empowered to develop and recommend for adoption by the City Council, emergency and mutual-aid plans.

Local Hazard Mitigation Plan Meetings

The *Disaster Council* met 8 times during the planning period. The purposes of those meetings are outlined in Table 2-1 and the agendas and minutes of their meetings are contained in Appendix A.

Disaster Council Membership

1. Chair: **John Bramble**, City Manager
(Director of Emergency Services)

2. Vice-Chair: **Mike McLaughlin**, Fire Chief
(Deputy Director of Emergency Services)

3. Police: **Norm Andrade**, Police Chief

4. Public Works: **Mike Wegley**, Director

5. Public Works: **Stan Murdock**, Director

6. Development Services: **David Gonzalves**, Director

7. Finance: **Brad Grant**, Director

8. Civic Representative: **Dr. Laurie Dickinson**

9. The Appraisal Group: **John Sundgren**

10. American Red Cross: **Sherry Pitchford**

11. Merced Irrigation District: **Dan Aguilar**

12. Pacific Gas & Electric: **Richard Dye**

13. Merced City School District: **RoseMary Parga Duran**

14. Merced Union High School District: **Kelly Bentz**

1.4 Organization of the Local Hazard Mitigation Plan

1.4.1 Plan Chapters

The Plan Leadership Team opted to create a plan that would be easy to read, taking into consideration length, format, and language style, while satisfying the content requirement of the Disaster Mitigation Act (DMA) 2000. For ease of use, special attention was given to place detailed technical information in the appendices, and to front-load summary findings and conclusions in the body of the report. The MHMP is organized into five Chapters plus an appendix that coincides with the phases of the plan's development.

Chapter 1 - Executive Summary

Chapter 2 – The Planning Process

This chapter contains a detailed description of the planning process, including purposes for planning, the scope of work, organization of resources, public involvement, and a chronology of plan development and milestones.

Chapter 3 - Risk Assessment

This chapter contains the risk assessment for the plan, which includes a profile of the City, identification of hazards, inventory of assets, a vulnerability assessment, and a ranking of risk.

Chapter 4 - Mitigation Strategies

This chapter contains the mitigation strategies for the MHMP, including goals and objectives, a review of alternatives, and an action plan.

Chapter 5 -- Plan Maintenance

This chapter contains a strategy for plan implementation and maintenance, including coordination with other planning mechanisms within the City.

Appendices

The appendix contains numerous background and support documents for the Merced Hazard Mitigation Plan (MHMP).

1.4.2 Essential Plan Activities and Elements

Overview

Integrated throughout the Hazard Mitigation Plan are symbols that mark four essential activities of the plan, and enliven and enhance the reading enjoyment and implementation value of the plan, including:

- public involvement;
- integration of Disaster Council input and actions into the MHMP;
- feedback loop describing where existing plans and studies are incorporated into the Merced Hazard Mitigation Plan (MHMP), as well as interjection of MHMP initiatives and information back into related and existing planning mechanisms; and,
- the identification of minimum FEMA content requirements of Local Hazard Mitigation Planning.

This information is marked with icons, which are displayed throughout the document, and include:

The **"Public Involvement"** icon describes public outreach methods and activities that provided an opportunity for the general public to be engaged in preparing the plan. Among other information, these icons describe: *who was involved in the process*, *how they were involved*, and *the methods of public participation that were employed*. The composition of these groups, the specific events and outreach methods are summarized in the ***Community Participation*** section of *Plan Organization (*Chapter 2) of the MHMP.

The **"Disaster Council Input and Actions"** icon describes how an engaged public and steering committee, under the guidance of the *Plan Leadership Team*, culminated into discernable components of the plan.

The **"Feedback"** icon identifies when the MHMP draws from existing plans and studies, as well as when the MHMP will be incorporated into existing planning documents and mechanisms.

The **"Content Requirement"** icon alerts state and federal plan reviewers of where the plan complies with Disaster Mitigation Act (DMA) minimum content elements, and provides an easy to use reference link to the numbering system found in Section 4, "Regulation Checklist," of the *Local Mitigation Plan Review Guide*, October 1, 2011.

1.5 Recommended Hazard Mitigation Strategies

1.5.1 Strategy Selection and Prioritization

Selection Process

For each hazard, City Staff created a comprehensive catalog of sample mitigation strategies that were applicable to the City of Merced. The hazards for which sample mitigation catalogs were created are those in which the City is most vulnerable to, based on the MHMP Risk Assessment. The specific strategies themselves were based upon the MHMP vulnerability assessment. The catalogs were not meant to be exhaustive or site-specific, but rather to inspire discussion. The sample mitigation strategies in the catalogs derived from numerous sources, including: 1) the City's "Community Risk Assessment; and, 2) hazard mitigation plans, notably from Central Valley California communities.

Based on a variety of factors listed below, the Plan Leadership Team narrowed the potential mitigation strategies from 54 actions to 10 strategies.

Factors:

- Scoring of comprehensive list of potential mitigation strategies
- FEMA funding eligibility
- Risk from hazards
- New ideas and approaches
- Meetings with technical City Staff.

Prioritization

After the focused set of ten mitigation strategies was assembled, the *Disaster Council* utilized several decision-making tools to rank the importance and effectiveness of the strategies. These tools included: 1) Benefit-Cost Review "economic" criteria; 2) FEMA's recommended prioritization criteria, STAPLEE (social, technical, administrative, political, legal, economical, and environmental); and, 3) community input gathered from the City's *Natural Hazard Community Awareness Survey* (Appendix C). The results of the prioritization process are presented in the table below.

Prioritized Strategies

Score	Recommended Action
171	(1) Prepare *Energy Assurance Plan*
140	(2) Enhance Storm-Water Drainage Improvements
129	(3) Develop *Disaster Preparedness Program*
120	(4) Support the Haystack Alternative
108	(5) Update City's Storm-water Drainage Master Plan
105	(6) Prepare a *Shelter and Emergency-Provision Plan*
102	(7) Prepare Natural Area Fire Prevention Plan
94	(8) Seismic Vulnerability Assessments of City-owned Critical Facilities, and upgrades
67	(9) Retrofit Unreinforced Masonry Building Program

1.5.2 Action Plan

Recommended Strategies

Action Item #1: Prepare an *Energy Assurance Plan* that includes: 1) the identification and assessment of power-backup capabilities for all the City's critical infrastructure (for example, pumps, data centers, dispatch) and buildings utilized for essential services (such as health-safety, water, sewer, waste, and transportation); 2) coordination of energy resources among public and private partners; 3) establishment of a program and schedule to implement recommended power upgrades and coordination programs; and, 4) an examination of a program of conversion of overhead utilities to underground service that serve critical facilities or other sensitive sites to reduce exposure to hazards, where possible.

Action Item #2: Develop and enhance storm-water drainage improvements to reduce frequent flooding. Projects may involve canals, storm-water drains, basins, trunk lines, auxiliary pipes, and interconnections. For example, increase the current stormwater diversion (at Fahrens Creek, south of Yosemite Avenue) of 50 cubic feet per second (cfs) to 200 cfs, so that storage capacity is not wasted during larger flooding events.

Action Item #3: Create a *Disaster Preparedness Program* that educates populations (residents, property owners, and businesses) that are vulnerable to Merced's natural hazards about: 1) shelter sites; 2) disaster advisory and warning systems; and, 3) "before, during and after" resources from community entities (e.g. hospitals, schools, public works), to prepare for natural disasters. Develop and deploy methods that assure access to this information and to these resources.

Action Item #4: Support Merced County efforts to construct the Haystack Alternative of Black Rascal Creek.

Action Item #5: Update the City's Storm-water Drainage Master Plan.

Action Item #6: Prepare a *Shelter and Emergency-Provision Plan* resulting in identification of existing and future sites and buildings, as well as improvements for their establishment or enhancement.

Action Item #7: Prepare a *Natural Area Fire Prevention Plan* for those areas of Merced to be developed adjacent to natural open space areas (as opposed to agricultural fields or private property) in order to determine the best approach to address and provide a coordinated plan for conflicting needs (for example, air quality, natural resource protection, and property rights). Methods would include acceptable site designs, building designs, and weed abatement.

Action Item #8: Perform building-specific, structural seismic vulnerability assessment of City-owned critical facilities (buildings and infrastructure) constructed prior to 1980, and take actions to upgrade or retrofit as needed.

Action Item #9: Create a program to retrofit or upgrade unreinforced masonry buildings in Downtown Merced, or other buildings in the Plan area.

Merced's Implementation Approach – An Action Plan

The Merced Hazard Mitigation Plan (MHMP), through implementation of the hazard mitigation action plan, is a tool for the City of Merced to become a disaster-resistant community. This action plan identifies the following:

- Strategy
- Goals addressed
- Lead implementer and support agencies
- Estimated costs
- Timeline for implementation
- Funding sources

The MHMP Action Plan is provided in Table 4.7 in Section 4.3.3 of Chapter 4.