



Monterey County

Multi-Jurisdictional Hazard Mitigation Plan



Carmel-by-the-Sea



Del Rey Oaks



Gonzales



Greenfield



King City



Marina



Monterey



Pacific Grove



Salinas



Sand City



Seaside



Soledad

FINAL

June 2015

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Acknowledgements

This multi-jurisdictional hazard mitigation plan update was made possible through the dedicated efforts of each participating jurisdiction, stakeholders, members of the public, and the project consultant. Detailed information about the planning process and individual participation can be found in the *Planning Process* section of this document.

Participating county and municipal jurisdictions are listed here in alphabetical order:

Monterey County

City of Carmel-by-the-Sea

City of Del Rey Oaks

City of Gonzales

City of Greenfield

City of King City

City of Marina

City of Monterey

City of Pacific Grove

City of Salinas

City of Sand City

City of Seaside

City of Soledad

Special thanks to the following partners who helped make this project possible:

National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center

National Association of Counties (NACo)

Federal Emergency Management Agency (FEMA)

California Governor's Office of Emergency Services (Cal OES)

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Commonly Used Acronyms and Abbreviations

CFR	Code of Federal Regulations
cfs	cubic feet per second
County	Monterey County
DFIRM	Digital Flood Insurance Rate Map
DMA 2000	Disaster Mitigation Act of 2000
DOT	U.S. Department of Transportation
DSOD	California Division of Safety of Dams
EHS	Extremely Hazardous Substance
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right to Know Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FRAP	California Fire and Resource Assessment Program
GIS	Geographic Information System
HMGP	Hazard Mitigation Grant Program
Highway 1	(California) State Route 1
MJHMP	Multi-Jurisdictional Hazard Mitigation Plan
MM	Modified Mercalli (Earthquake Intensity Scale)
NFIP	National Flood Insurance Program
OES	Monterey County Office of Emergency Services
PDM	Pre-Disaster Mitigation (Grant Program)
PGA	peak ground acceleration
Planning Team	Multi-Jurisdictional Hazard Mitigation Planning Team
SFHA	Special Flood Hazard Area
Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
STAPLEE	Social, Technical, Administrative, Political, Legal, Economic, and Environmental
U.S. Census	U.S. Census Bureau
US 101	U.S. Highway 101
USC	United States Code
USGS	U.S. Geological Survey

Executive Summary

What is Hazard Mitigation?

Monterey County is potentially vulnerable to a wide range of natural and manmade hazards. These hazards can threaten the life and safety of residents and visitors, and have the potential to damage or destroy both public and private property and disrupt the local economy and overall quality of life.

While the threats from hazard events may never be fully eliminated, there is much we can do to lessen their potential impact on our communities. By minimizing the damaging impacts of hazards upon our built environment, we can prevent such events from resulting in disasters. ***The concept and practice of reducing risks to people and property from known hazards is called hazard mitigation.***



Hazard mitigation activities include a variety of different actions. Structural related measures include activities such as strengthening or protecting buildings and infrastructure from the destructive forces of potential hazards, or in some cases, such as flood control, physically altering the natural course of the potential hazard itself to attempt to minimize the potential impact. Non-structural related measures include activities such as the adoption of sound land use or floodplain management policies and the implementation of public awareness programs.

What is a Hazard Mitigation Plan?

One of the most effective means that a community can use to implement a comprehensive approach to hazard mitigation is to develop, adopt, and update as needed, a local hazard mitigation plan. ***A mitigation plan establishes the broad local vision and guiding principles for reducing hazard risk, and proposes specific mitigation actions to eliminate or reduce identified vulnerabilities.***

The Monterey County Multi-Jurisdictional Hazard Mitigation Plan is an effective approach to facilitate incorporation of hazard mitigation principles and practices into routine government activities and functions of the County and the 12 municipalities participating in this Plan.

Disaster Mitigation Act of 2000

In an effort to reduce the nation's mounting natural disaster losses, the U.S. Congress passed the Disaster Mitigation Act of 2000 to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act by invoking new and revitalized approaches to hazard mitigation planning. Section 322 of the Act emphasizes the need for state and local government entities to closely coordinate on hazard mitigation planning activities, and makes the development of a hazard mitigation plan a specific eligibility requirement for any local government applying for federal mitigation grant funds. ***Communities with an adopted and federally-approved hazard mitigation plan are eligible to receive certain types of mitigation funds before and after future disaster declarations, and, in some ways, are "pre-positioned" or "pre-qualified" for this funding.***

To implement the new Stafford Act provisions, the Federal Emergency Management Agency (FEMA) published requirements and procedures for local hazard mitigation plans in the Code of Federal Regulations (CFR) at Title 44, Chapter 1, Part 201.6. These regulations specify minimum standards for developing, updating, and submitting local hazard mitigation plans for FEMA review and approval at least once every five years.

This Plan was prepared in coordination with FEMA and the California Office of Emergency Services (COES) to ensure that it meets all applicable federal and state requirements. This includes conformance with FEMA's latest *Local Mitigation Planning Handbook* (released March 2013) and *Local Mitigation Plan Review Guide* (released October 2011).

Purpose and Mission Statement

The general purpose of this Monterey County Multi-Jurisdictional Hazard Mitigation Plan is:

- To protect life and property by reducing the potential for future damages and economic losses that result from known hazards;
- To qualify for additional grant funding, in both the pre-disaster and post-disaster environment;
- To speed recovery and redevelopment following future disaster events;
- To sustain and enhance existing governmental coordination throughout Monterey County and demonstrate a firm local commitment to hazard mitigation principles; and
- To comply with federal and state requirements for local hazard mitigation plans.

The following Mission Statement was created and agreed upon by the participants to represent the overall intended outcome of the Plan:

Protect the public health, safety, quality of life, environment, and economy of Monterey County by reducing the long-term risk of damage and loss to known hazards through coordinated planning, partnerships, capacity building, and implementation of effective risk reduction measures.

Scope and Authority

The geographic scope (i.e., the "planning area") for the Plan includes all incorporated and unincorporated areas of Monterey County. This includes Monterey County and the City of Carmel-by-the-Sea, City of Del Rey Oaks, City of Gonzales, City of Greenfield, City of King City, City of Marina, City of Monterey, City of Pacific Grove, City of Salinas, City of Sand City, City of Seaside, and the City of Soledad.

The Plan addresses those hazards determined to be of primary or secondary concern to each jurisdiction, as documented in the risk assessment portion of this Plan. Other hazards that pose a low risk or are otherwise omitted from this Plan will continue to be evaluated during future plan updates, but they may not be fully addressed until they are determined to be of primary or secondary concern to Monterey County. Individual entities are still able to, and are encouraged to, continue to address and plan for those other hazards as may be appropriate within their jurisdictions.

This Plan must be adopted by all participating jurisdictions in accordance with the authority and police powers granted to local governments under Article 11 of the California Constitution.

This Plan was developed in accordance with current federal rules and regulations governing local hazard mitigation plans. The Plan shall be monitored and updated on a routine basis to maintain compliance with the following legislation:

- Section 322, Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as enacted by Section 104 of the Disaster Mitigation Act of 2000 (Public Law 106-390) and by FEMA's Interim Final Rule published in the Federal Register on February 26, 2002, at 44 CFR Part 201.

Plan Overview

The Plan is divided into nine (9) major sections, each of which is described briefly below. The Plan also includes numerous appendices for additional items not included in the main body of the Plan, including detailed vulnerability analyses, capability assessments, and mitigation action plans for all participating jurisdictions; copies of local adoption resolutions; public participation survey results; and a completed *Local Mitigation Plan Review Tool*.

Planning Process

Section 2 describes the planning process used to update the Plan and identifies the Planning Team members, the meetings held as part of the planning process, the consultants who supported the update, and key stakeholders within the county and surrounding region. In addition, this section documents public outreach activities and the review and incorporation of relevant plans, reports, and other appropriate information.

Planning Area Profile

Section 3 provides a general history and background of Monterey County and each participating community, including historical trends for population and the demographic and economic conditions that have shaped the area. Trends in land use and development are also discussed.

Hazard Analysis

Section 4 describes the process through which the Planning Team identified and compiled relevant data on all potential hazards that threaten the county. Information collected includes historical data on hazard events that have occurred in and around the county and how these events impacted the area and people. The descriptions of hazards that could affect the county are based on historical occurrences and best available data from agencies such as FEMA, the U.S. Geological Survey (USGS), the California Geologic Survey (CGS), and the National Weather Service (NWS). Detailed hazard profiles include information on the frequency, magnitude, location, and impact of each hazard as well as probabilities for future hazard events. Map figures are included to identify known hazard areas and locations of previous hazard occurrences.

Vulnerability Analysis

Section 5 identifies potentially vulnerable assets—people, residential dwelling units, critical facilities, infrastructure and lifelines, hazardous materials facilities, and nonresidential facilities—within the entire county. This data was compiled by assessing the potential impacts from each hazard using Geographic Information System (GIS) information. Also featured as part of the vulnerability analysis and overall risk assessment is the NOAA Digital Coast platform and associated data, tools, and resources. The resulting information identifies the full range of hazards

that the county could face and potential social impacts, damages, and economic losses that could arise.

Capability Assessment

Section 6 provides a comprehensive examination of each participating jurisdiction's capacity to implement meaningful mitigation strategies and identifies existing opportunities to increase and enhance that capacity. Specific capabilities addressed in this section include planning and regulatory capability, staff and organizational (administrative) capability, technical capability, fiscal capability, and political capability. The purpose of this assessment is to identify any existing gaps, weaknesses, or conflicts in programs or activities that may hinder mitigation efforts, and to identify those activities that should be built upon in establishing a successful and sustainable community hazard mitigation program.

Mitigation Strategy

Section 7 provides a blueprint for reducing the potential losses identified in the vulnerability analysis. For the countywide mitigation strategy, the Planning Team developed a list of mitigation goals and actions based upon the *Planning Area Profile, Hazard Analysis, Vulnerability Analysis, and Capability Assessment*. Based upon this background information and other criteria, the Planning Team reviewed and prioritized a comprehensive range of appropriate mitigation actions to address the risks facing the county. Such measures include local plans and regulations, structure and infrastructure projects, natural systems protection, education and awareness programs, and other activities.

Plan Maintenance Procedures

Section 8 describes the Planning Team's formal plan maintenance process to ensure that the Plan remains an active and applicable document. The process includes monitoring, evaluating, and updating the Plan; implementation through existing planning mechanisms; integration with other planning efforts; and continued public involvement.