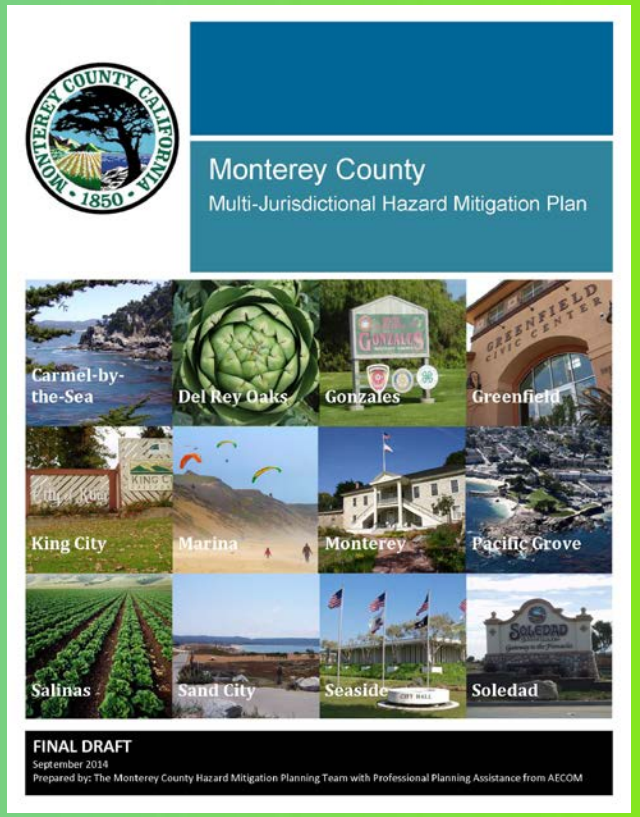
Monterey County
Multi-jurisdictional Hazard Mitigation Plan
2013-2014 Update



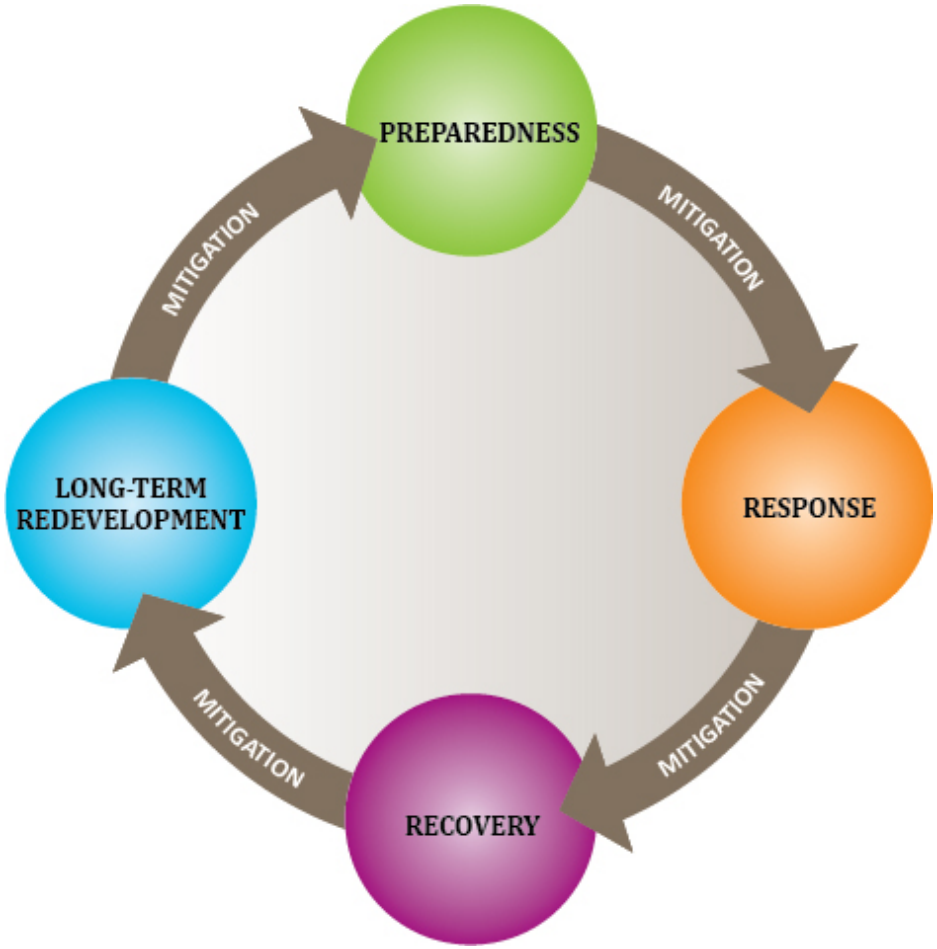
Presented By:

Sherrie Collins, CEM
County of Monterey OES

FIRST, what do we mean by *Hazard Mitigation*?

Hazard Mitigation = Disaster Prevention

Mitigation is an ongoing activity that occurs *throughout* the emergency management cycle…

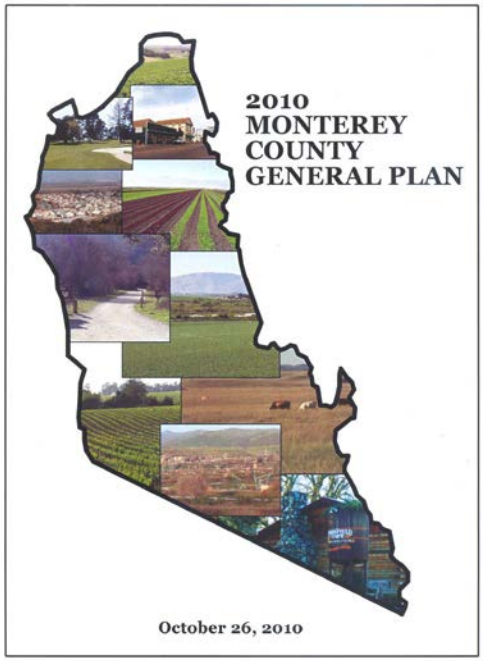


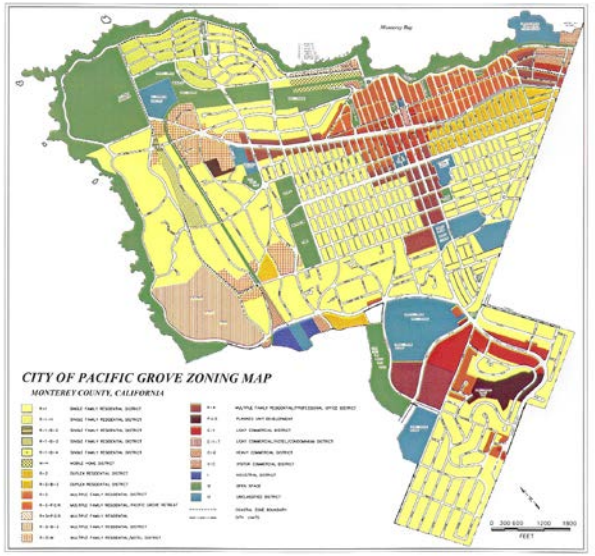
Types of Hazard Mitigation Activities

- Local Plans and Regulations
  - Government authorities, policies, or codes that influence the way land and buildings are developed and built.
- Structure and Infrastructure Projects
  - Modifying existing buildings and infrastructure to protect them from a hazard or remove them from a hazard area. Also includes projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection
  - Actions that minimize damage by preserving or restoring functions of natural systems (such as dunes, floodplains, and wetlands).
- Education and Awareness Programs
  - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

Examples – Local Plans and Regulations

- General plans
- Zoning ordinances
- Subdivision regulations
- Building codes
- Capital improvement programs





Examples – Structure and Infrastructure Projects

- Acquisition, relocation or elevation of flood-prone structures
- Seismic retrofitting of older structures
- Hardening critical facilities
- Strengthening roads and bridges
- Burying utility lines
- Stormwater diversion, retention or detention
- Levees and floodwalls

Examples – Natural Systems Protection

- Floodplain protection
- Wetlands preservation
- Coastal or riverine setbacks
- Sediment and erosion control
- Forest and vegetative management
- Stream corridor restoration

Examples – Education and Awareness Programs

- Risk communication
- Websites with maps & information
- Radio or television spots
- Real estate disclosure
- Presentations to school groups or neighborhood organizations
- Community outreach projects
- Training courses

Why Plan for Hazard Mitigation?

- Protect life and property
- Minimize economic losses
- Enhance community resiliency and sustainability
- Reduce burden on local governments, and taxpayers
- Break the cycle of repetitive disaster damages
- Speed disaster recovery and redevelopment
- Integrate hazard mitigation with other local planning and decision-making activities
- To comply with federal and state requirements, and to qualify for additional grant funding

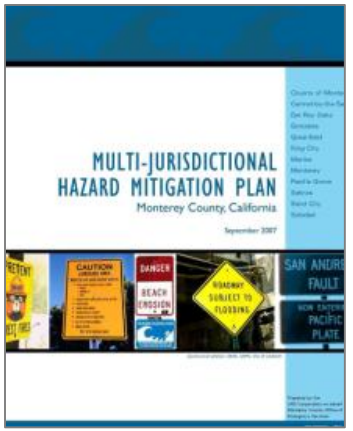
Why Plan for Hazard Mitigation?

- Disaster Mitigation Act of 2000
  - Amends Stafford Disaster Relief and Emergency Assistance Act
- Local hazard mitigation plans must be prepared and updated every 5 years in order to remain eligible for certain types of disaster assistance, including funding for hazard mitigation projects
  - Plans must be approved by Cal OES and FEMA

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

FEMA

Hazard Mitigation Planning in Monterey County



- First Multi-jurisdictional Hazard Mitigation Plan was developed in 2006-2007
  - included all municipalities with exception of Seaside, which had prepared its own plan
- Plan is being updated to reflect new data, information, and priorities that may have changed since 2007
- Plan update process is being led by Monterey County, with technical support from AECOM, and through a collaborative partnership with the NOAA Coastal Services Center and National Association of Counties (NACo)

NOAA DIGITAL COAST
NOAA COASTAL SERVICES CENTER

NACo National Association of Counties
The Voice of America's Counties

Planning Team Organization

Identified Hazards

Existing Hazards (2007 Plan)	New Hazards (Updated Plan)
Coastal Erosion	Agricultural Emergency ✓
Dam Failure	Sea Level Rise ✓
Earthquake	
Flood *(includes Coastal Storm)*	
Hazardous Materials Event	
Landslide	
Tsunami	
Wildland Fire	
Windstorm	

** The anticipated effects of **climate change** will be integrated into the analysis for all hazards.*

Key Objectives for 2013-2014 Plan Update

- Integrate anticipated effects of climate change and sea level rise into the ***risk assessment***
- Enhance the ***mitigation strategy*** to include specific, achievable, and measurable hazard mitigation and climate adaptation actions
- Improve ***plan maintenance procedures*** to establish a sustained, long-term process of increasing the resilience of all communities
- Conduct widespread ***public outreach and stakeholder involvement*** to support successful implementation, integration, and maintenance of the plan for all communities

Mission Statement

"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."

Mitigation Goals

1. Promote disaster-resistance and ***climate adaptation*** strategies in ***future development***.

2. Retrofit, reinforce, or otherwise protect ***existing community assets***, especially ***critical infrastructure***, for hazard resilience.

3. Encourage ***natural systems protection*** through plans and policies; vegetation, debris and sediment control measures; maintenance and restoration programs; ecosystem services; and other activities for areas such as the Salinas and Carmel rivers and the Monterey County coast.

4. Provide ***regulatory tools*** for applicable hazards and integrate hazard mitigation principles into appropriate ***local plans*** such as the General Plan during the next General Plan update.

5. Increase ***public education and awareness*** on hazard risks and available mitigation techniques for reducing hazard risk; build and support ***personal preparedness*** to enable the public to better prepare for, respond to, and recover from disasters.

6. Improve ***local government capacity*** for disaster resiliency; facilitate ***coordination*** between participating jurisdictions and state and federal agencies, local utility companies, local businesses, non-profit organizations, and other stakeholders to promote hazard risk reduction.

Plan Organization (Table of Contents)

- Plan Sections
  - Section 1: Introduction
  - Section 2: Planning Process
  - Section 3: Planning Area Profile
  - Section 4: Hazard Analysis
  - Section 5: Vulnerability Analysis
  - Section 6: Capability Assessment
  - Section 7: Mitigation Strategy
  - Section 8: Plan Maintenance Procedures
  - Section 9: References

Plan Organization (Table of Contents)

- Appendices
  - Appendix A: Local Hazard Mitigation Plan Update Checklist
  - Appendix B: Adoption Resolutions
  - Appendix C: Copies of Meeting Agendas
  - Appendix D: Public Outreach
  - Appendix E: Maps
  - Appendix F: Capability Assessment Survey
  - Appendix G: Safe Growth Survey
  - Appendix H-U: Jurisdiction Appendices

Appendix P
City Of Pacific Grove

Table P-10
City of Pacific Grove Mitigation Action Plan Matrix

Action Number	Description	Ranking / Prioritization	Administering Department	Potential Funding	Timeframe	Benefit-Costs	Status	Narrative Update/Explanation
1	Develop a sustained public outreach program that encourages consistent hazard mitigation content and improves public awareness and knowledge regarding all types of hazards, preparedness and mitigation measures. For example, consider publishing interactive information on the city website on topics such as tsunami inundation zones, wildland fire defensible spaces, and safe handling/disposal of hazardous waste and chemicals.	Priority / High	Disaster Planning, Community Development	General Funds, HMGP, and PDM Grants	1-2 years	A mitigation outreach program will help build and support local capacity to enable the public to prepare for, respond to, and recover from disasters.	In progress	The public outreach program is an ongoing program that the city will continue to pursue. The City currently keeps an updated webpage providing information to members of the public, as well as providing information through other outlets such as providing fliers in the City Hall and publishing on social media sites.
2	Develop audience-specific hazard mitigation outreach efforts. Audiences include the elderly, children, tourists, non-English speaking residents, and home and business owners.	Priority / High	Fire / CERT	HMPG and PDM Grants	1-2 years	A mitigation outreach program will help build and support local capacity to enable the public to prepare for, respond to, and recover from disasters.	In progress	In conjunction with Action Item 1, the City continues to provide outreach through various different mediums. Signs throughout the city provide photos and information about the potential of specific hazards.
3	Develop an unreinforced masonry grant program that helps correct earthquake-risk nonmasonry building problems, including chimney bracing and anchoring water heaters. Additionally, ensure proper training on seismic codes for all buildings inspectors and encourage measures to reduce earthquake damage risk.	Priority / High	Community Development	General Funds, HMGP, and PDM Grants	5 years	The identification and mitigation of unreinforced nonmasonry buildings, as well as the education of pertinent staff members, will reduce potential losses due to earthquakes.	Deferred	The City has ensured proper training on seismic codes for all building inspectors and encourages measures to reduce earthquake damage risk.
4	Participate in the NOAA TsunamiReady Program. This new program, sponsored by the National Weather Service, is designed to provide communities with incentives to reduce their tsunami risks.	Priority / High	Disaster Planning	General Funds	1-2 years	This effort is both a mitigation outreach effort and an emergency preparedness effort. This action will help reduce the possibility of future damage and losses by educating the public about local tsunami inundation areas. In addition, it will also educate the public on where and how to evacuate, if necessary.	In progress	The City is currently participating in the Tsunami Ready Program. Multiple "Tsunami Warning" signs are posted throughout the city and staff is familiar with the tsunami inundation zone.
5	Continue to conduct current fuel management programs and investigate and apply new and emerging fuel management techniques.	Priority / High	Fire Prevention	General Funds	Ongoing	The probability of future damage from wildland fires could be high if this mitigation action is not	Deleted	

Hazard Mitigation Strategy for Pacific Grove

Table P-10
City of Pacific Grove Mitigation Action Plan Matrix

Action Number	Description	Ranking / Prioritization	Administering Department	Potential Funding	Timeframe	Benefit-Costs	Status	Narrative Update/Explanation
						implemented.		
6	Develop and provide funding and/or incentives for defensible space measures (e.g., free chipping day, free collection day for tree limbs).	Priority / High	Fire Prevention / Public Works	General Funds, HMGP, and PDM Grants	Ongoing	The potential cost of this mitigation action seems reasonable for the size of the problem and its likely benefits.	Deleted	
7	Use GIS to regularly calculate and document vulnerable areas such as: flood-prone areas, sea level rise, tsunami inundation zones, coastal erosion zones, wildland fire areas, and areas affected by dam failure. Additionally, this information shall be used to create an inventory of especially vulnerable zones, buildings, properties, and infrastructure.	Moderate	Public Works, Community and Economic Development	General Funds	2 years	The minimal costs of GIS services will allow for a large benefit and service for both emergency planning and post-emergency reconstruction. The benefit of having this information saved in the City's server will greatly affect post-hazard reconstruction.	In Progress	The City currently contracts GIS services and will continue to add to the inventory of maps saved on the City's server.
8	Adopt a Local Coastal Plan with the implementation of dune protection, stabilization, and nourishment to provide floodplain protection in the coastal areas. Additionally, wildlife safety should be linked with other environmental strategies	High	Community and Economic Development	California Coastal Commis-sion Grants	1-2 years	A certified Local Coastal Plan Land Use Plan will allow the City to protect, stabilize, and nourish the areas around the coast, as well as implement hazard mitigation. The areas around the coast are	In progress	The City is currently in the process of rewriting the LCP with the implementation of hazard mitigation elements throughout the Coastal Zone. The LCP is scheduled to

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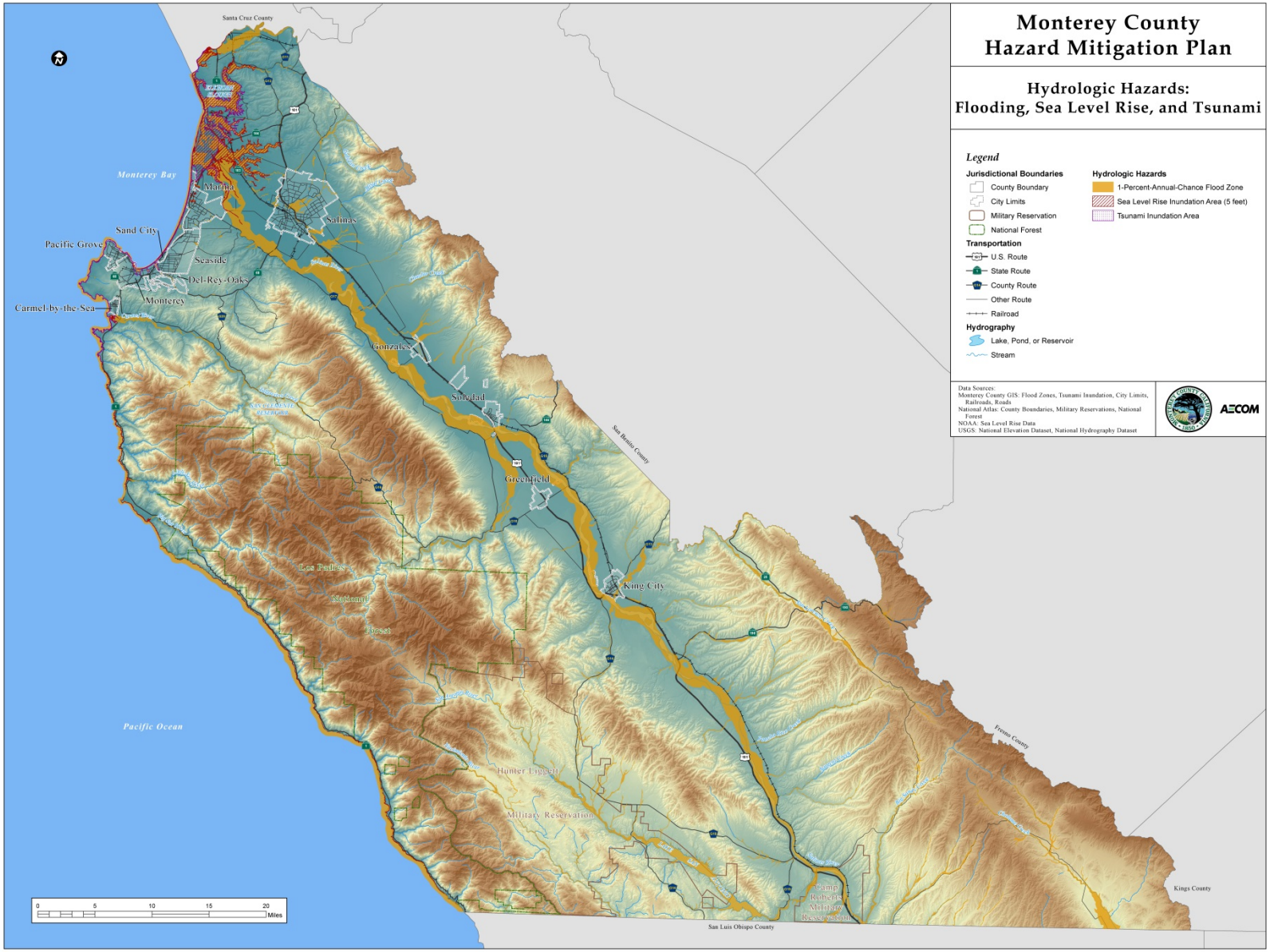
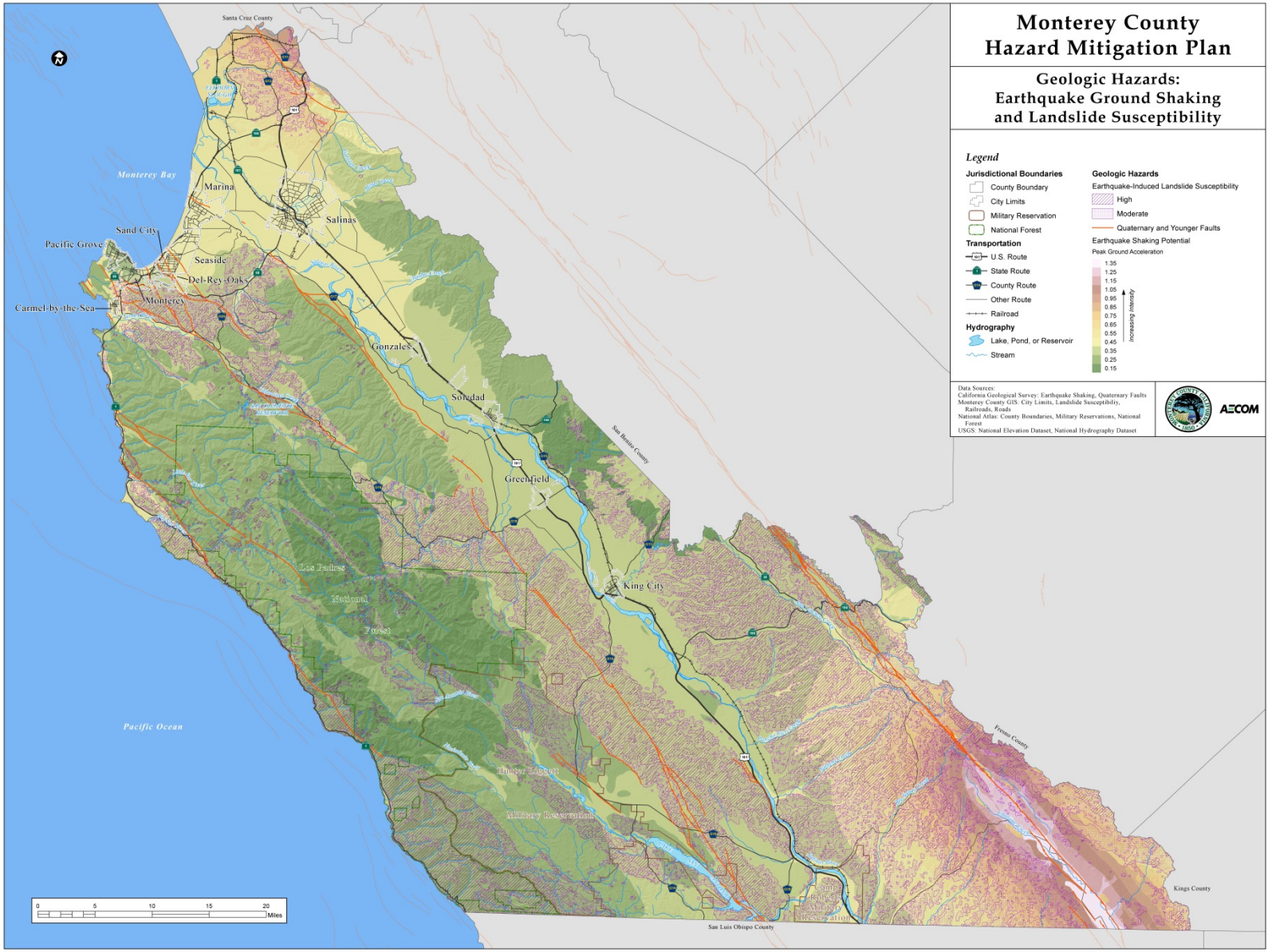
	throughout the Local Coastal Plan.					subject to various different hazards and require specific protection against disasters.		end of 2015.
9	Establish watershed-based planning to address flood hazards, sea level rise potentials and stormwater runoff problems and encourage techniques to reduces rainwater runoff, which can prevent flooding and erosion. Specifically, encourage major land alteration projects to include the use of pervious surfaces and rainwater collection technology.	High	Community and Economic Development	Grant Money, General Funds	1-2 years	A majority of Pacific Grove is located within an Area of Special Biological Significance Watershed zone. Incorporating watershed measures will not only protect the marine sanctuary, but it will also encourage the alleviation of flood hazards, sea level rise potentials, and stormwater runoff issues.	In progress	The City has recently received grant money to fund watershed flaws throughout the city and the City is in the process of implementing this.

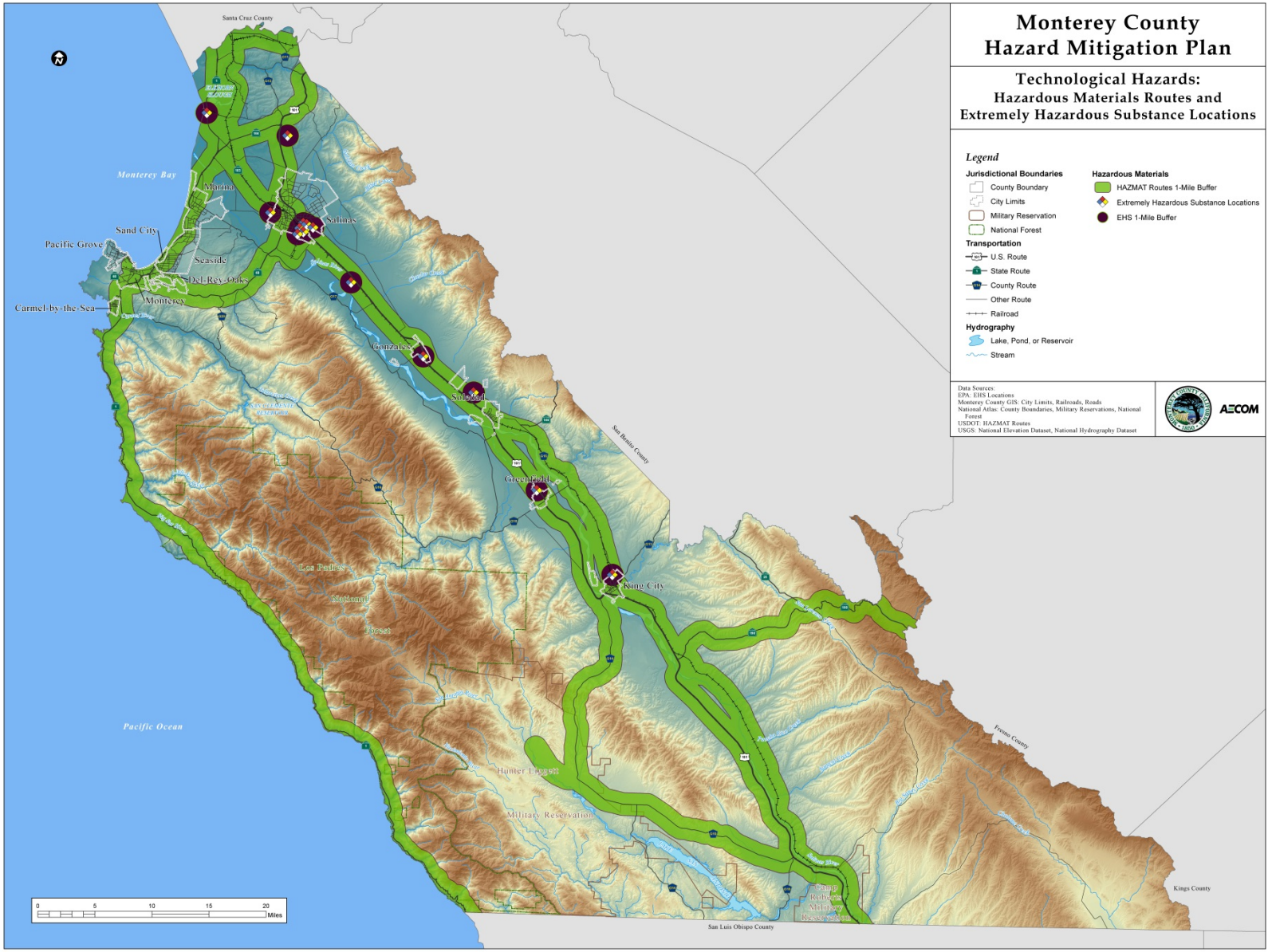
Composite Hazard Map (Hydrologic Hazards)



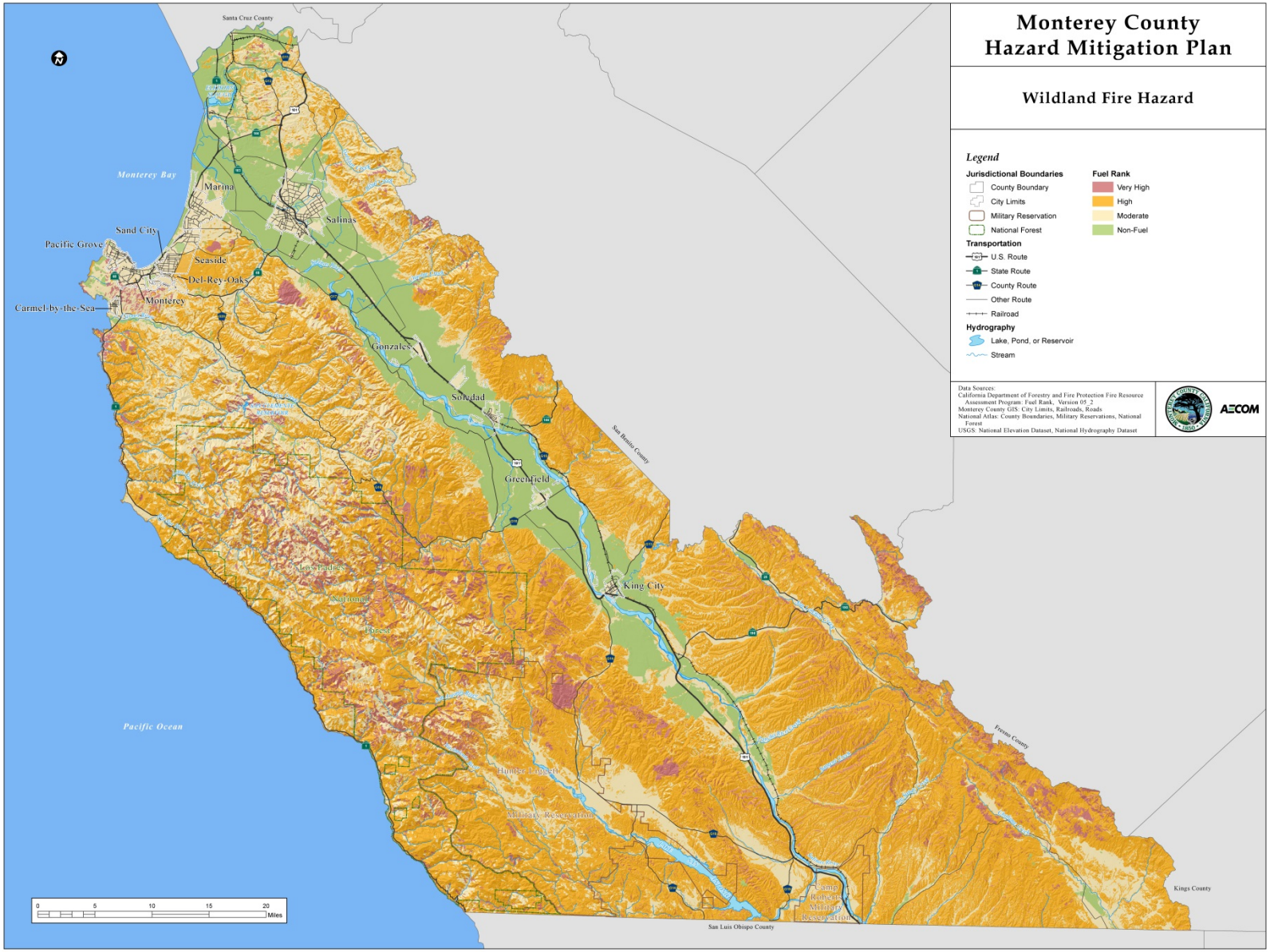
Composite Hazard Map (Geologic Hazards)



Composite Hazard Map (Technological Hazards)



Composite Hazard Map (Other Hazards)



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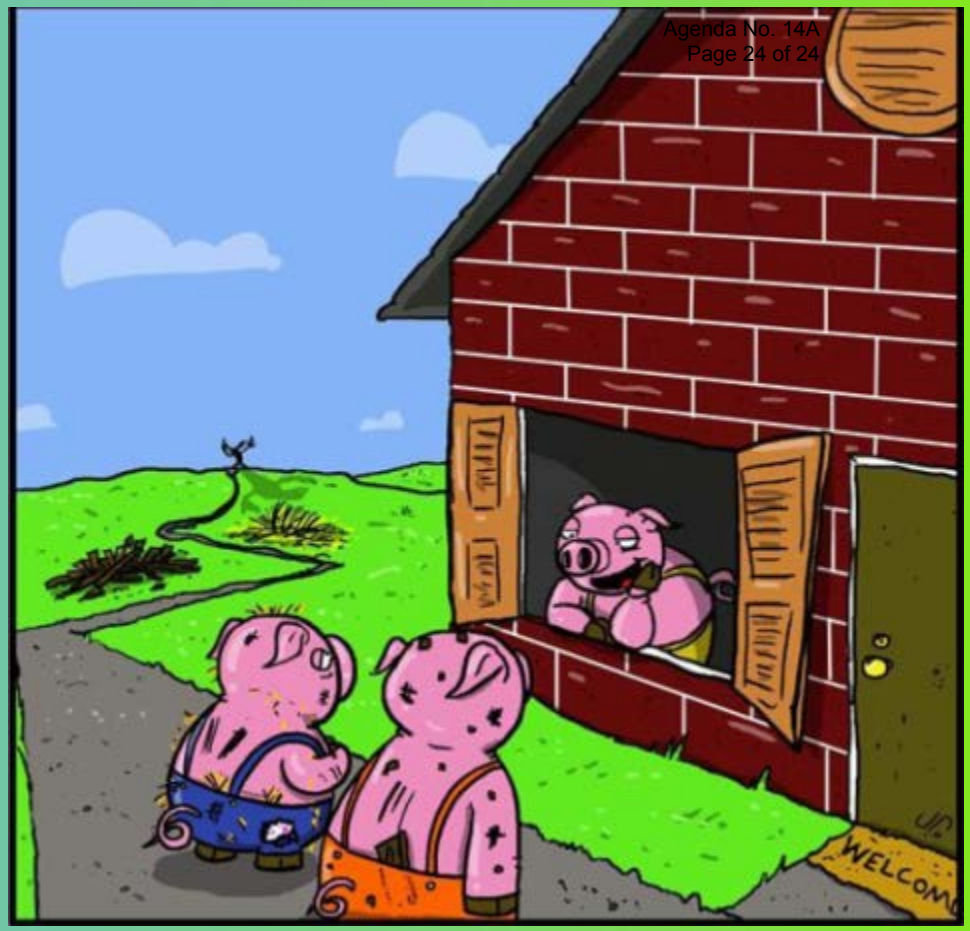

"Mitigation isn't so funny now, is it?"