



## MINUTES

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### Attendees

Name	Agency
Bill Boyd	Ventura County Sheriff's OES
Dale Carnathan	Ventura County Sheriff's OES
Ken Carter	Ventura County Sheriff's OES
Brian Clark	City of Ventura
Neil Cole	Casitas Municipal Water District
Teri Davis	City of Moorpark
Dustin Gardner	Ventura County Fire Protection District
Kathy Gibson	Ventura County Sheriff's OES
Joel Justice	Ventura County Community College District Police
Bill Keyes	Camrosa Water District
Kevin McGown	Ventura County Sheriff's OES
Russ Olsen	Ventura County School's Self-Funding Authority (Office of Education)
Bruce Rindahl	Ventura County Watershed Protection District
Ian Rodriguez	Ventura County Sheriff's OES
Ronald Sheets	Ojai Valley Sanitary District - confirm participation
Darryl Smith	Ventura County Sheriff's OES
Kaili Taniguchi	United Water Conservation District
Maggie Tougas	California State University Channel Islands
Brian Trushinski	Ventura County Watershed Protection District
Grahame Watts	City of Thousand Oaks
Gil Zavlodaver	Ventura County Sheriff's OES

### Hazard Maps

- For each hazard to be addressed in the Hazard Mitigation Plan (HMP) we will develop a hazard profile, this includes discussing the nature, history, location, extent and probably of future events for each hazard.
- Hazard maps have been developed; these help us understand both the location and the extent. For each map, we'd like you to let us know if anything looks unexpected and if you're happy with the data sources we're using (we're still working on the maps for landslide, earthquake history and wildfire history).



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**Hazard Map Review**

<b>Map</b>	<b>Data Source</b>	<b>Comments</b>
<b>Climate Change - Sea Level Rise Map</b> (3ft and 6 ft)	NOAA Office for Coastal Management, Digital Coast	At a later date it was decided to use data from the Nature Conservancy rather than the NOAA data.
<b>Dam Failure Inundation</b>	Cal OES inundation maps	Group would like to see each dam inundation map separately – individual thumbnails will be developed for each dam inundation.
<b>Regional Faults and Earthquake Groundshaking Potential</b>	California Geological Survey (2008)	No comment
<b>Local Faults and Earthquake Groundshaking Potential</b>	California Geological Survey (2008)	Switch the order of the shaking categories so it matches the previous map – most extreme at the top, least extreme at the bottom.
<b>Special Flood Hazard Areas</b> (100 year and 500 year floods)	FEMA Flood Maps (3/19/15)	Add in Coastal flood zone with velocity – Zone VE.
<b>Areas with Reduced Flood Risk Due to Levee</b>	FEMA digital flood insurance rate maps (DFIRMs – 3/19/15)	No comment
<b>Liquefaction Areas</b>	California Geological Survey (2003)	No comment
<b>Tsunami Inundation Areas</b>	Cal OES, Earthquake and Tsunami program (2009)	County noted that there's some 2014 data that should be used. At a later date it was decided to use data from the Tsunami Emergency Response Playbooks, July 2014.
<b>Wildfire Hazard Severity Zones</b>	CalFIRE data, Fire and Resource Assessment Program (FRAP – 2007 and 2010)	To distinguish the difference between the very high zone in the local vs. state responsibility areas, very high is both gold and orange. It was decided that all areas of very high should be the same color.
<b>Recent Wildfire Perimeters</b> (Past Three Years – ties into post-fire debris flow)	Cal FIRE FRAP data	Group wanted to add the Day Fire to this map even though it occurred more than 3 years ago, it will contribute to post-fire debris flow.



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**Hazard Map Review**

Map	Data Source	Comments
<b>Extreme Winter Storm Scenario</b> (CoSMoS – ARkStorm)	USGS Coastal Storm modeling system, ARkStorm scenario)	Group did not like this map. A number of changes to the map were discussed, but ultimately it was decided to not use this data set and use data from the Nature Conservancy instead.
<b>Wildfire History</b>	Map not yet developed	Fire noted that they have a fire history map and would like us to format ours based off of theirs.

**Vulnerability Analysis Process**

- Critical facility/asset data as well as population and residential structure data is combined with hazard maps to produce the Vulnerability Analysis
  - In essence, the critical facilities are mapped then the map of each hazard is overlaid to determine which hazards fall into which hazard zones.
  - The analysis does not try to determine to what level a facility is vulnerable, i.e. 20% of the facility is within the flood zone or the facility will receive 1 foot of water. Rather a facility is simply in or out, if the hazard boundary touches a facility the facility is counted as being susceptible.
  - A similar approach is taken for population and residential structures.
- Examples of what the information obtained from the vulnerability analysis will look like were shown and discussed - for each critical facility identified it notes which of the chosen hazards the facility is susceptible to.
- For population and residential buildings, census data is used and we get the number of people and residential buildings susceptible to each hazard.

**Mitigation Strategy**

- Begin the mitigation strategy process by reviewing the 2010 Mitigation Strategy: review the previous mitigation goals/objectives and analyze the previous mitigation actions - which were completed and which were not. If not completed discuss why and should they be included in the 2015 strategy?

Mitigation Goals

- In the 2010 plan one goal per hazard was identified. Reducing the number of goals and making them more general - to apply to multiple hazards - was suggested and agreed upon by the group.

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### Potential Mitigation Actions

- A list of potential mitigation actions has been developed (**Table 1** in the Mitigation Strategy handout).
  - It is suggested that additional mitigation actions, specific to your jurisdiction/special district, are added to the list of potential mitigation actions (**Table 2**). The list of potential mitigation actions is your laundry list that you enter all possible ideas onto, and then you can go through the list and choose 3-10 mitigation actions based upon established priorities.

### Eligible vs. Ineligible Mitigation Activities

- Developing an HMP gains a jurisdiction eligibility to specific federal grant funds. A list was provided that illustrates eligible mitigation activities for three different funding sources and a list of example ineligible mitigation activities (attached).
- Examples of **Eligible** Activities:
  - Relocation and elevation of structures
  - Structural and non-structural retrofitting
  - Dry floodproofing (non-residential structures)
  - Protective measures for utilities (e.g. electric and gas), water & sanitary sewer systems and/or other infrastructure (e.g. roads, bridges)
  - Vegetation management
  - Storm water management
  - Localized flood control projects
- Examples of **Ineligible** Activities
  - Flood studies or flood mapping and major flood control projects
  - Studies that do not yield a project
  - Projects that solely address operations or maintenance (e.g. dredging, debris removal)
  - Any phase or part of a project that is dependent on another project
  - Preparedness measures and response equipment (e.g., response training, electronic evacuation road signs, interoperable communications equipment)
  - Projects for preparedness activities or temporary measures (e.g., sandbags, bladders, geotubes)

### Priority Mitigation Action Criteria

- It is strongly suggested that mitigation actions are chosen utilizing the following criteria.
  - Mitigation Planning
  - Technical Feasibility and Effectiveness

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- Floodplain Management and Protection of Wetlands
- Environmental Planning and Historic Review and Compliance
- Cost Effectiveness
- Cost Review
- General Program Requirements
- These are the Hazard Mitigation Assistance (HMA) Program requirements. Incorporating these requirements into the prioritization process helps to identify high priority mitigation actions would lead to enhanced project scoping as well as development and prevent delays later for HMA funding.

### Local Participant-Specific Mitigation Action Plan

- A Mitigation Strategy handout was provided to the group to help guide each member through the development of their own Mitigation Action Plan:
  1. Review Table 1 (list of potential mitigation actions)
  2. Utilize Table 2, to write down any additional mitigation actions you would like to consider
  3. Evaluate the items in both Tables 1 and 2 and establish priority actions for your jurisdiction
    - Use the requirements in Table 3 to choose your priority actions
    - Emphasis in this process should be placed on cost-effectiveness and technical feasibility and effectiveness.
  4. Enter your chosen mitigation actions into Table 4 and complete the remaining columns
- It is suggested that each participant choose between 3 and 10 mitigation actions based upon their priorities and their resources.

***Please provide the completed Mitigation Strategy handout to AECOM by Tuesday, June 16<sup>th</sup>***  
***([Lindsey.Trumpy@aecom.com](mailto:Lindsey.Trumpy@aecom.com))***

### **Next Steps**

- Complete Vulnerability Analysis (*AECOM*)
- Complete update of Capability Assessments (*MHMP Committee*)
- Complete Participant-Specific Mitigation Action Plan (*MHMP Committee*)
- Complete Draft Plan for Review (*AECOM*)
- Review Draft Plan (*MHMP Committee*)

**Table 3: Eligible Activities by Program**  
**(Hazard Mitigation Assistance (HMA) Programs)**

Eligible Activities	HMGP	PDM	FMA
<b>1. Mitigation Projects</b>	√	√	√
Property Acquisition and Structure Demolition	√	√	√
Property Acquisition and Structure Relocation	√	√	√
Structure Elevation	√	√	√
Mitigation Reconstruction			√
Dry Floodproofing of Historic Residential Structures	√	√	√
Dry Floodproofing of Non-residential Structures	√	√	√
Minor Localized Flood Reduction Projects	√	√	√
Structural Retrofitting of Existing Buildings	√	√	
Non-structural Retrofitting of Existing Buildings and Facilities	√	√	√
Safe Room Construction	√	√	
Wind Retrofit for One- and Two-Family Residences	√	√	
Infrastructure Retrofit	√	√	√
Soil Stabilization	√	√	√
Wildfire Mitigation	√	√	
Post-Disaster Code Enforcement	√		
Generators	√	√	
5 Percent Initiative Projects	√		
Advance Assistance	√		
<b>2. Hazard Mitigation Planning</b>	√	√	√
<b>3. Management Costs</b>	√	√	√

HMGP = Hazard Mitigation Grant Program  
PDM = Pre-Disaster Mitigation (Grant Program)  
FMA = Flood Mitigation Assistance (Program)

## D.2 Ineligible Activities

The following list provides examples of activities that are not eligible for HMA funding:

- ◆ Projects that do not reduce the risk to people, structures, or infrastructure;
- ◆ Projects that are dependent on a contingent action in order to be effective and/or feasible (i.e., not a stand-alone mitigation project that solves a problem independently or constitutes a functional portion of a solution);
- ◆ Projects with the sole purpose of open space acquisition of unimproved land;
- ◆ Projects for which actual physical work such as groundbreaking, demolition, or construction of a raised foundation has occurred prior to award or final approval. Projects for which demolition and debris removal related to structures proposed for acquisition or mitigation reconstruction has already occurred may be eligible when such activities were initiated or completed under the FEMA Public Assistance program to alleviate a health or safety hazard as a result of a disaster;
- ◆ Projects that involve land that is contaminated with hazardous waste;
- ◆ Projects for preparedness activities or temporary measures (e.g., sandbags, bladders, geotubes);
- ◆ Projects that create revolving loan funds;
- ◆ Activities required as a result of negligence or intentional actions, or those intended to remedy a code violation, or the reimbursement of legal obligations such as those imposed by a legal settlement, court order, or State law;
- ◆ FEMA may, at its discretion, choose not to fund projects subject to ongoing litigation if such litigation may affect eligibility of the project or may substantially delay implementation of the project;
- ◆ All projects located in a CBRS Unit or in OPAs, other than property acquisition and structure demolition or relocation projects for open space under HMA. For details on property acquisition and structure demolition or relocation projects for open space within a CBRS Unit or OPAs see Addendum, Part A.2;
- ◆ Activities on Federal lands or associated with facilities owned by another Federal entity;
- ◆ Major flood control projects related to the construction, demolition, or repair of dams, dikes, levees, floodwalls, seawalls, groins, jetties, breakwaters, and erosion projects related to beach nourishment or re-nourishment;
- ◆ Projects for hazardous fuels reduction in excess of 2 miles from structures;
- ◆ Projects that address unmet needs from a disaster that are not related to mitigation;

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- ◆ Retrofitting facilities primarily used for religious purposes, such as places of worship (or other projects that solely benefit religious organizations). However, a place of worship may be included in a property acquisition and structure demolition or relocation project provided that the project benefits the entire community, such as when the whole neighborhood or community is being removed from the hazard area;
  - ◆ Activities that only address manmade hazards;
  - ◆ Projects that address, without an increase in the level of protection, operation, deferred or future maintenance, repairs, or replacement of existing structures, facilities, or infrastructure (e.g., dredging, debris removal, replacement of obsolete utility systems, bridges, and facility repair/rehabilitation);
  - ◆ Projects for the purpose of:
    - Landscaping for ornamentation (e.g., trees, shrubs);
    - Site remediation of hazardous materials (with the exception eligible activities, such as the abatement of asbestos and/or lead-based paint and the removal of household hazardous wastes to an approved landfill);
    - Water quality infrastructure;
    - Projects that primarily address ecological or agricultural issues;
    - Forest management;
    - Prescribed burning or clear-cutting;
    - Creation and maintenance of fire breaks, access roads, or staging areas;
    - Irrigation systems;
  - ◆ Studies not directly related to the design and implementation of a proposed mitigation project; and
  - ◆ Preparedness measures and response equipment (e.g., response training, electronic evacuation road signs, interoperable communications equipment).

All projects must also comply with any additional project-specific guidance provided in the Addendum.

### **D.3 Cost-effectiveness**

Mitigation program authorizing statutes (Flood Mitigation Assistance at 42 U.S.C. 4104c, Pre-Disaster Hazard Mitigation at 42 U.S.C. 5133, and Hazard Mitigation at 42 U.S.C. 5170c) require that FEMA provide funding for mitigation measures that are cost-effective or are in the interest of the NFIF. FEMA has specified minimum project criteria via regulation (44 CFR Part 79 and 44 CFR Section 206.434), including that Applicants must demonstrate mitigation projects are cost-effective. The determination of cost-effectiveness is performed in a variety of ways. It