



Emergency Management Measures for Extreme Events

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Emergency Management Coordinator



Climate Related Hazards

Direct

- Floods
- Fires
- Drought
- Extreme Cold
- Extreme Heat
- Wind Events

Indirect

- Power supply
- Water supply
- Transportation
- Communication
- Invasive Species and Disease.

Impacts

- Production
- Plants
- Animals
- Infrastructure
 - Roads, power, irrigation, structures
- Soils
- Water sources
- Disease and Pests
- Life Safety
- Job Loss
- Loss of Market Share

CDFA Role

- Part of a the State's Emergency Management System
- Lead Agency for Food and Agriculture emergencies
 - Plant Pest
 - Animal Disease
 - Contamination of Dairy, Meat, Eggs and Feed
 - Supports CDPH
- Lead agency for care of Animals
- Fairgrounds support of response and Care and Sheltering
- Staff and GIS support
- Support Producers and Processors

Emergency Management



Emergency Management

Before

- Preparedness
 - Planning
 - Training
 - Exercises
 - Equipping
- Prevention and Mitigation
 - Capital Improvements
 - Statute and Regulation
 - Land use

After

- Response
 - Protecting life and property
 - Evacuation, Care & Shelter
 - Search and Rescue
 - Supply and logistics
- Recovery
 - Clean up, repair, and replace
 - Long term care and shelter
 - Insurance, reimbursement, compensation

The System

- National Response Framework
- State Emergency Plan
- Administrative Order
- Emergency Functions
- SEMS and NIMS
 - Incident Command System
- State Hazard Mitigation Plan

Government Approach to Response

STATE

- State Emergency Plan
- Standardized Emergency Management System (SEMS)
- Unified Coordination and Command
- Incident Command System

FEDERAL

- National Framework
- National Incident Management System (NIMS)
- Unified Coordination and Command
- Incident Command System
- Grants for preparedness & response

State Emergency Operations

Levels of Operations

- Field
- Local
- Operational Area (County)
- Region
- State
 - Emergency Functions (EF)
- Joint Federal/State
 - Federal Emergency Support Functions (ESF)

Characteristics

- Management Functions
- Management by Objectives
- Action Planning
- Modular organization and Flexibility
- Span of control
- Accountability
- Common Terminology
- Integrated Communication

Recovery

- Insurance
- Individual Assistance
- Public Assistance
- Technical Assistance Program
- Safety Assessment Program
- Private Non Profit Program

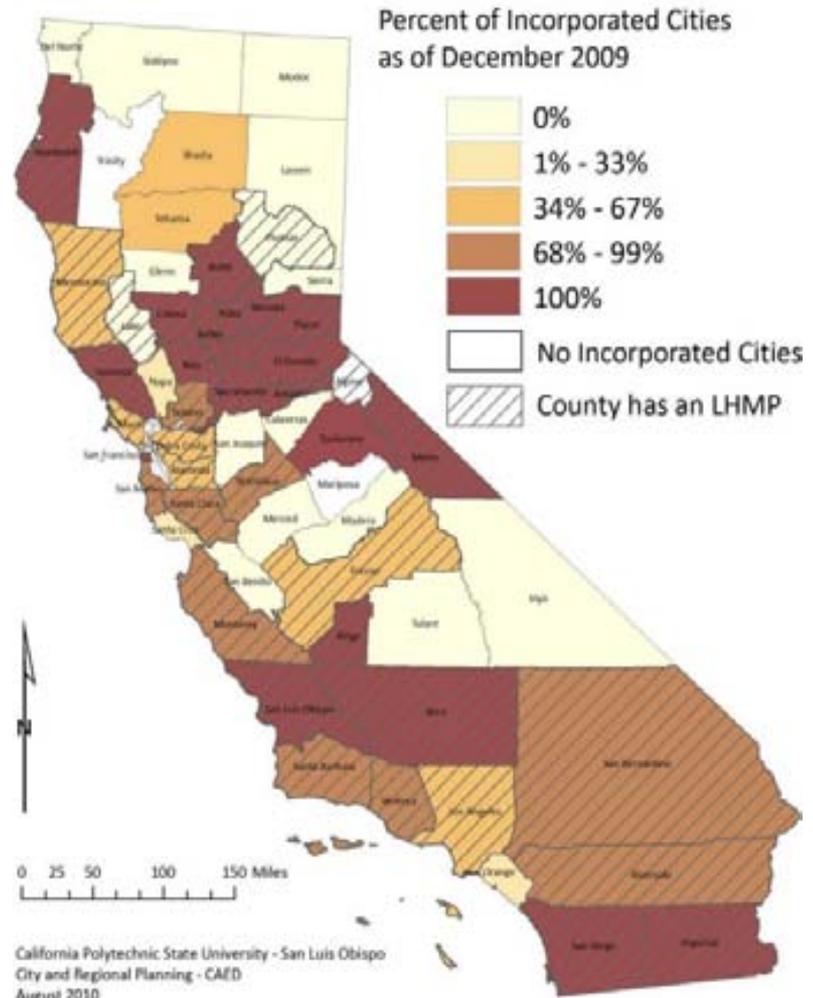
USDA FSA Emergency Loans

- Restore or replace essential property
- Pay all or part of production costs associated with the disaster year
- Pay essential family living expenses
- Reorganize the farming operation
- Refinance certain debts

Hazard Mitigation

- All disasters are local
- Hazard Identification
- Mitigation Planning
- Mitigation Programs

FEMA-approved City and County LHMPs



Source: Cal EMA, 2010

Created by
C. Schmitt

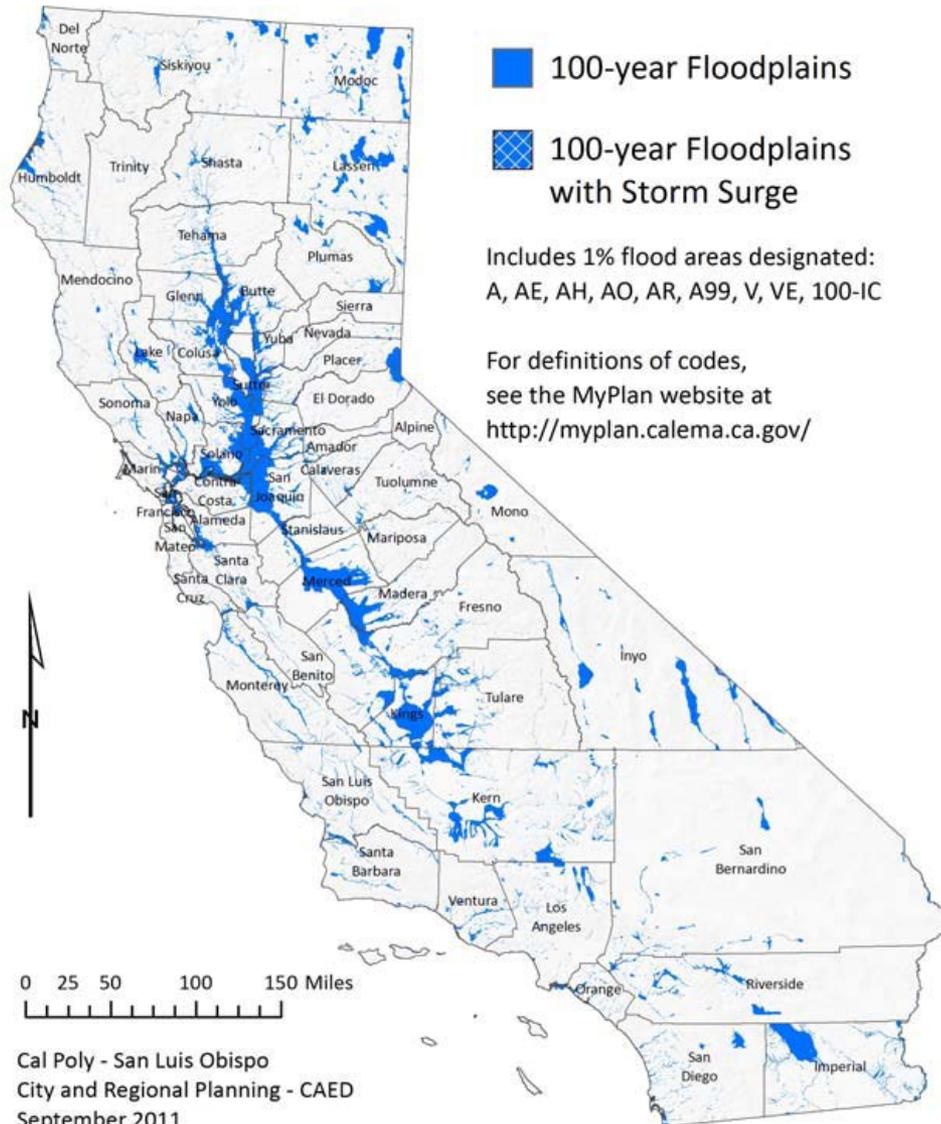
14 FEMA Approved City & County LHMPs



Flood



FEMA 1% (100 year) Flood Hazard Areas



Department of Water Resources

CENTRAL VALLEY FLOOD MANAGEMENT PLANNING PROGRAM



State Plan of Flood Control Descriptive Document

November 2010



Fire

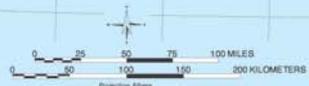




FIRE THREAT

- Extreme
- Very High
- High
- Moderate
- Non-fuel
- Not Mapped

CDF-FRAP has developed a rating of wildland fire threat based on the combination of potential fire behavior (Fuel Rank) and expected fire frequency (Fire Rotation) to create a 4-class index for risk assessment. Areas that do not support wildland fuels (e.g., open water, agricultural lands, etc.) are omitted from the calculation. Most large urbanized areas receive a moderate fire threat classification to account for fires carried by ornamental vegetation and flammable structures. For a detailed description of these data and methods please visit http://frap.cdf.ca.gov/projects/fire_threat/





FIRESCOPE ORGANIZATIONAL CHART

MIKE DAYTON
(ACTING) SECRETARY
California Emergency Management Agency

KIM ZAGARIS
STATE FIRE AND RESCUE COORDINATOR
California Emergency Management Agency



CAL EMA FIRE SERVICE ADVISORY COMMITTEE FIRESCOPE BOARD OF DIRECTORS

FIRESCOPE Chief Bob Roper (Chair) Ventura County Fire Department FIRESCOPE Chief Michael Dyer (Vice-Chair) Santa Barbara County Fire Department FIRESCOPE Chief Kim Zagaris (Executive Coordinator) California Emergency Management Agency, Fire and Rescue Division FIRESCOPE Chief Keith Richter Orange County Fire Authority	FIRESCOPE Director Joseph C. Millar USFS, Aviation & Fire Management FIRESCOPE Chief Daryl Osby Los Angeles County Fire Department FIRESCOPE Chief Millage Peaks Los Angeles Fire Department FIRESCOPE (Acting) Director Ken Pimlott CAL FIRE U.S. NATIONAL PARK SERVICE Regional FMO Sue Husari	STATE FIRE MARSHAL (Acting) Chief Tonya Hoover CAL FIRE, Office of the State Fire Marshal/State Board of Fire Services VOLUNTEER FIRE DEPARTMENTS Chief Jim Wilson Mariposa County Fire Department CITY FIRE DEPARTMENTS NORTH Vacant U.S. BUREAU OF LAND MANAGEMENT State FMO Paul Bannister COUNTY FIRE DEPARTMENTS NORTH Chief Sheldon Gilbert Alameda County Fire Department	COUNTY FIRE DEPARTMENTS SOUTH FIRE DISTRICTS SOUTH Chief Nick Dunn Kern County Fire Department FIRE DISTRICTS NORTH Chief Richard H. Webb Linda Fire Protection District FIRE DISTRICTS SOUTH Chief Bill Metcalf North County Fire Protection District CALIFORNIA PROFESSIONAL FIREFIGHTERS President Lou Paulson CALIFORNIA STATE FIREFIGHTERS ASSOCIATION Southern Director Charles (Chuck) Knapp
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FIRESCOPE OPERATIONS TEAM

FIRESCOPE Chief Mario Rueda (Chair) Los Angeles Fire Department CAL EMA MUTUAL AID REGION V Chief Jim Middleton (Vice-Chair) Mariposa County Fire Department FIRESCOPE Chief Mark Schmitt (Retired) (Secretary) Santa Barbara County Fire Department FIRESCOPE (Acting) Assistant Director Art Torrez U.S. Forest Service	FIRESCOPE Chief Tom Drayer California Emergency Management Agency, Fire and Rescue Division FIRESCOPE CAL EMA MUTUAL AID REGION I Chief John Tripp Los Angeles County Fire Department FIRESCOPE Chief Darrell Ralston Ventura County Fire Department FIRESCOPE Vacant Orange County Fire Authority	U.S. DEPARTMENT OF INTERIOR Deputy Regional FMO Christy Neill U.S. National Park Service CAL FIRE CAL EMA MUTUAL AID REGION III Chief Kelley Gouette CAL FIRE CAL EMA MUTUAL AID REGION II Chief David Franklin San Francisco Fire Department CAL EMA MUTUAL AID REGION II Chief David Rocha Alameda County Fire Department	CAL EMA MUTUAL AID REGION IV Chief Jack Hickey Davis Fire Department CAL EMA MUTUAL AID REGION IV Chief Marty Scheuerman South Lake Tahoe Fire Department CAL EMA MUTUAL AID REGION V Chief Michael Miller Kern County Fire Department VOLUNTEERS Chief Jim Little Laytonville Fire Department	NATIONAL INCIDENT MANAGEMENT SYSTEMS (NIMS) CONSORTIUM Chief Bob Neamy Los Angeles Fire Department (Retired) Chief George Maier Fire Department New York U.S. FIRE ADMINISTRATION Aitor Bidaburu
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FIRESCOPE TASK FORCE

FIRESCOPE Chief Dan Drake Orange County Fire Authority COUNTY FIRE DEPARTMENTS SOUTH Chief Jack Froggatt Kern County Fire Protection District FIRESCOPE Vacant California Emergency Management Agency, Fire and Rescue Division	FIRESCOPE Chief Woody Enos Santa Barbara County Fire Department FIRESCOPE Chief Robert Bell U.S. Forest Service FIRESCOPE Chief Jim Crawford Los Angeles County Fire Department FIRESCOPE Chief Mike LaPlant Ventura County Fire Department	FIRESCOPE Chief Charles Butler Los Angeles Fire Department U.S. DEPARTMENT OF INTERIOR Deputy FMO David Brinsfield U.S. Bureau of Land Management CITY FIRE DEPARTMENTS SOUTH Chief Jeff Carle San Diego Fire Department CITY FIRE DEPARTMENTS NORTH Vacant COUNTY FIRE DEPARTMENTS NORTH Vacant	STATE FIRE MARSHAL Chief Ramiro Rodriguez CAL FIRE, Office of the State Fire Marshal/State Board of Fire Services VOLUNTEER FIRE DEPARTMENTS Chief Tim Fike Nevada County Consolidated Fire District FIRE DISTRICTS NORTH Chief Orbrad (Brad) Darbro Santa Clara County Fire Department FIRE DISTRICTS SOUTH Vacant
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FIRESCOPE LIAISONS

NWCG OPERATIONS AND WORKFORCE DEVELOPMENT COMMITTEE Vacant	NATIONAL INCIDENT MANAGEMENT SYSTEMS (NIMS) CONSORTIUM Chief Dan Drake, Orange County Fire Authority Chief Bob Neamy, Los Angeles Fire Department (Retired) Chief George Maier, Fire Department New York	NATIONAL INCIDENT MANAGEMENT WORKING GROUP (NIMWG) Chief Bob Neamy, Los Angeles Fire Department (Retired)	NATIONAL WILDLAND/URBAN INTERFACE/FUELS WORKING GROUP Chief Kim Zagaris California Emergency Management Agency, Fire and Rescue Division
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FIRESCOPE SPECIALIST AND WORKING GROUPS

HAZARDOUS MATERIALS SPECIALIST GROUP Liaisons Chief Brad Darbro	US&R SPECIALIST GROUP Liaisons Chief Charles Butler Chief Ramiro Rodriguez	GIS SPECIALIST GROUP Liaisons Vacant	COMMUNICATIONS SPECIALIST GROUP Liaisons Chief Mike LaPlant Chief Jim Crawford	EMERGENCY MEDICAL SERVICES SPECIALIST GROUP Liaisons Chief Woody Enos Chief Tim Fike
SAFETY SPECIALIST GROUP Liaisons Chief Woody Enos Chief Tim Fike	Aviation SPECIALIST GROUP Liaisons Chief Jack Froggatt	PREDICTIVE SERVICES SPECIALIST GROUP Liaisons Chief Jack Froggatt	HIGHRISE OPERATIONS WORKING GROUP Liaison Chief Jeff Carle	05/06/11

Drought





California's Drought Planning 2010

DROUGHT PREPARATION

- Drought preparedness workshops
- 5 year Drought Contingency Plan
- Coordination with world-wide drought efforts

WATER CONSERVATION

- Statewide Save Our Water Program
- 20% reduction in water use by 2020
- Increased use of recycled water
- Water savings at state facilities

WATER SUPPLY

- 2010 Drought Water Bank
- Long-term Water Transfers Program

TECHNICAL ASSISTANCE

- - CA Irrigation Management Information System (CIMIS)
- - Groundwater and well monitoring
- - Financial assistance

EMERGENCY RESPONSE

- - Federal, State and County coordination
- - Clarification of emergency response procedures
- - Regional impact reporting and assistance
- - Response to developing emergency conditions

Cold





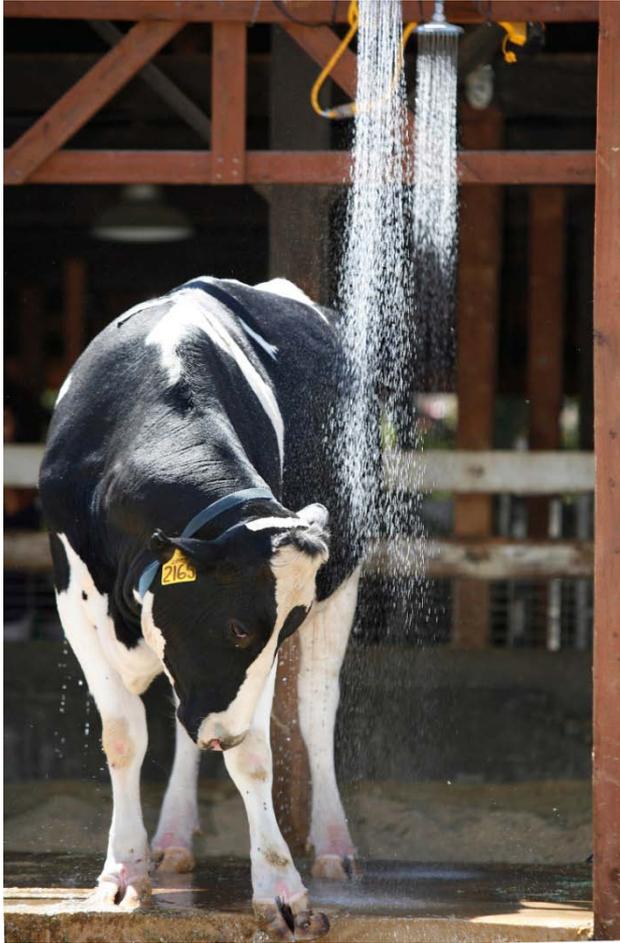
Cal EMA
CALIFORNIA EMERGENCY
MANAGEMENT AGENCY

CONTINGENCY PLAN FOR EXTREME COLD / FREEZE EMERGENCIES

*A Supporting Document to the California State
Emergency Plan*

January 2010

Heat





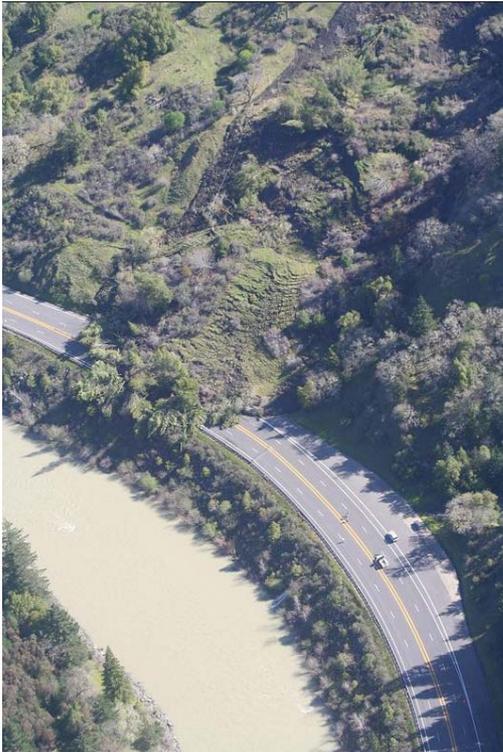
- Alliance of Western Milk Producers
- CA Cattlemen's Association
- CA Dairies Inc.
- CA Dairy Campaign
- CA Farm Bureau Federation
- CA Poultry Federation
- CA Pork Producers Association
- CA Wool Growers Association
- Foster Farms
- Harris Ranch Beef Company
- Milk Producers Council
- National Meat Association
- Pacific Egg and Poultry Association
- Western United Dairymen
- Industry Allied to Livestock Production
- Baker Commodities, Inc.
- California Grain and Feed Association
- CalRecovery Inc.
- Darling International, Inc.
- George Larson & Associates
- Integrated Waste Management Consulting
- National Renderers Association
- North State Rendering
- Sacramento Rendering
- Waste Management
- West Coast Rendering
- CA Air Resources Board
- CA Department of Food and Agriculture
- CA Department of Public Health
- CA Depart. Resources Recycling Recovery
- CA Department of Transportation
- CA State Water Resources Control Board
- Center for Veterinary Medicine, FDA
- Governors' Office of Emergency Services
- US Department of Agriculture (APHIS, NRCS)
- Central Valley Regional Water Quality Control Board
- County Env. Health / Public Works / Emerg. Services / Waste Management (Fresno, Kern, Kings, Merced, Stanislaus)
- County Ag Commissioners (Fresno, Kings, Stanislaus, Tulare)
- San Joaquin Valley Unified Air Pollution Control District
- California Animal Health & Food Safety Lab
- California Dairy Quality Assurance Program
- California Polytechnic State University
- UC Davis School of Veterinary Medicine
- UC Davis, Animal Science
- UC Davis, Biological and Agricultural Engineering
- UC Davis, Plant Pathology
- UC Riverside Department of Environmental Science
- UC Cooperative Extension
- (Kings, Merced, Riverside, San Bernardino, San Joaquin, Tulare)
- Western Institute for Food Safety and Security

Wind



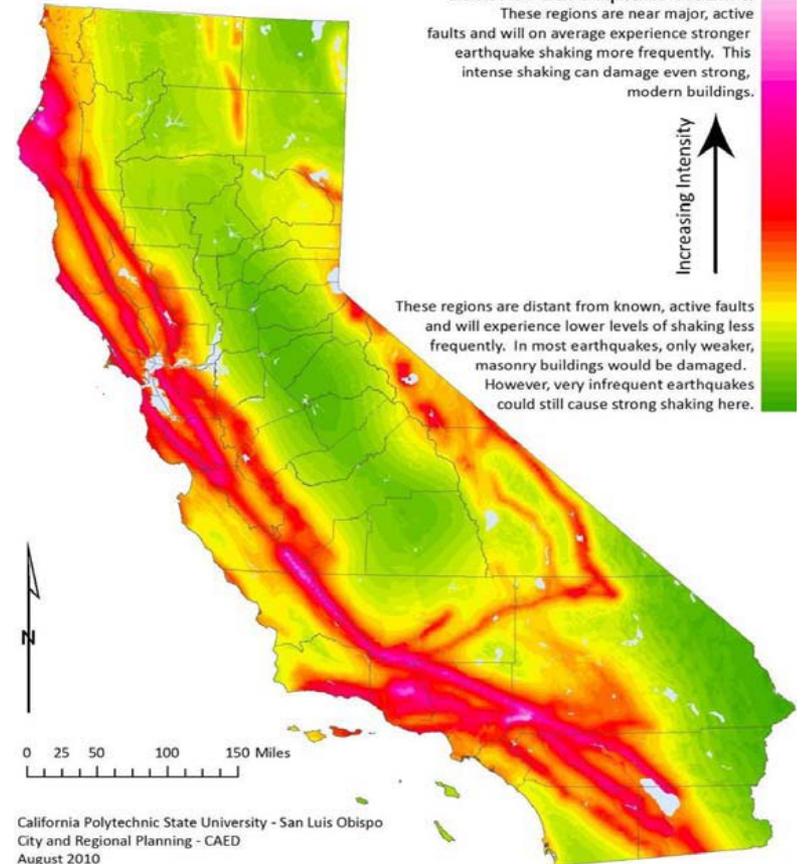
Additional Hazards

- Earthquake
- Toxic Spills and Releases
- Slides



Earthquake Shaking Hazard Primarily Affecting One- and Two-story Buildings

Level of Earthquake Hazard
These regions are near major, active faults and will on average experience stronger earthquake shaking more frequently. This intense shaking can damage even strong, modern buildings.



These regions are distant from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.

California Polytechnic State University - San Luis Obispo
City and Regional Planning - CAED
August 2010

0.2 second spectral acceleration with 2% probability of exceedance in 50 years
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The Future?



Trends

- Improvements in Emergency Management
 - Terrorism
 - Climate Change
- Integration of Non Governmental Organizations
- Business continuity and personal preparedness

Thank you

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