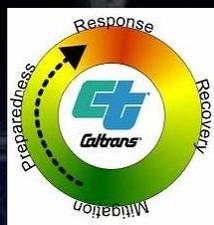


INTEGRATED APPROACHES ACROSS DISASTER RISK ASSESSMENT TOOLS  
CALIFORNIA OFFICE OF EMERGENCY SERVICES  
STATEWIDE EMERGENCY PLANNING COMMITTEE (SWEPC)  
FEBRUARY 24, 2015



**Herby G. Lissade, P.E.**  
Chief, Office of Emergency Management  
California Department of Transportation



# Office Of Emergency Management

<div style="text-align: center;">  <b>DIVISION OF MAINTENANCE</b>  <b>OFFICE OF EMERGENCY MANAGEMENT</b>                      Herby Lissade, P.E. – (916) 417-6994                      Supervising Transportation Engineer (M)                 </div>					
EMERGENCY OPERATIONS BRANCH <b>Chris Smith</b> (916) 653-8782 Maintenance Mgr 1 (M) (Acting)	HOMELAND SECURITY BRANCH <b>René T Garcia</b> (916) 653-8933 Senior Transportation Engineer (R)		LANDS & BUILDINGS BRANCH <b>Suong Vu</b> (916) 654-3510 Senior Transportation Engineer (R)	SUSTAINABILITY BRANCH <b>Desiree Fox</b> (916) 654-4269 Senior Transportation Engineer (R)	HAZARDOUS MATERIALS BRANCH <b>Antonio Duran</b> (916) 654-4269 Maintenance Mgr 1 (M)
EMERGENCY OPERATIONS UNIT	GRANTS & PANDEMIC INFLUENZA UNIT	COOP/COG UNIT	LANDS & BUILDINGS UNIT	SUSTAINABILITY UNIT	HAZMAT UNIT
<div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Tony Ramirez</b>                      Emergency Management Coordinator                      (916) 654-1498  <small>CT Maintenance Area Supt. (R)</small> </div> <div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Durval Avila</b>                      Emergency Operations Coordinator                      (916) 654-2490                      (acting)  <small>CT Maintenance Area Supt. (R)</small> </div> <div style="border: 1px solid red; padding: 5px;"> <b>David Frame</b>                      Winter Operations Coordinator                      (916) 657-4911  <small>CT Maintenance Area Supt. (R)</small> </div>	<div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Collen Catabran</b>                      Pandemic Flu &amp; H. S. Grants Coordinator                      (916) 654-3305  <small>Assoc. Gov. Prog. Analyst (R)</small> </div>	<div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Dana Hendrix</b>                      COOP/COG Coordinator                      (916) 214-0954  <small>Transportation Engr. (Civil) (R)</small> </div> <div style="border: 1px solid red; padding: 5px;"> <b>Sang Le</b>                      COOP/COG Coordinator                      (916) 651-9198  <small>Transportation Engr. (Civil) (R)</small> </div>	<div style="border: 1px solid red; padding: 5px;"> <b>Judy Vargas</b>                      HMG Facilities Project Coordinator                      (916) 654-2355  <small>Assoc. Gov. Prog. Analyst (R)</small> </div>		<div style="border: 1px solid red; padding: 5px; margin-bottom: 10px;"> <b>Jon Wood</b>                      Hazmat Operations and Training                      (805) 549-3786  <small>Maintenance Manager 1 (RA)</small> </div> <div style="border: 1px solid red; padding: 5px;"> <b>Sarah Beddawi</b>                      Hazmat Operations                      (916) 653-3199  <small>Student Assistant</small> </div>



Updated 10 December 2014

Caltrans Office of Emergency Management ©2014

# What Caltrans is resourced for and can use to respond to Emergencies

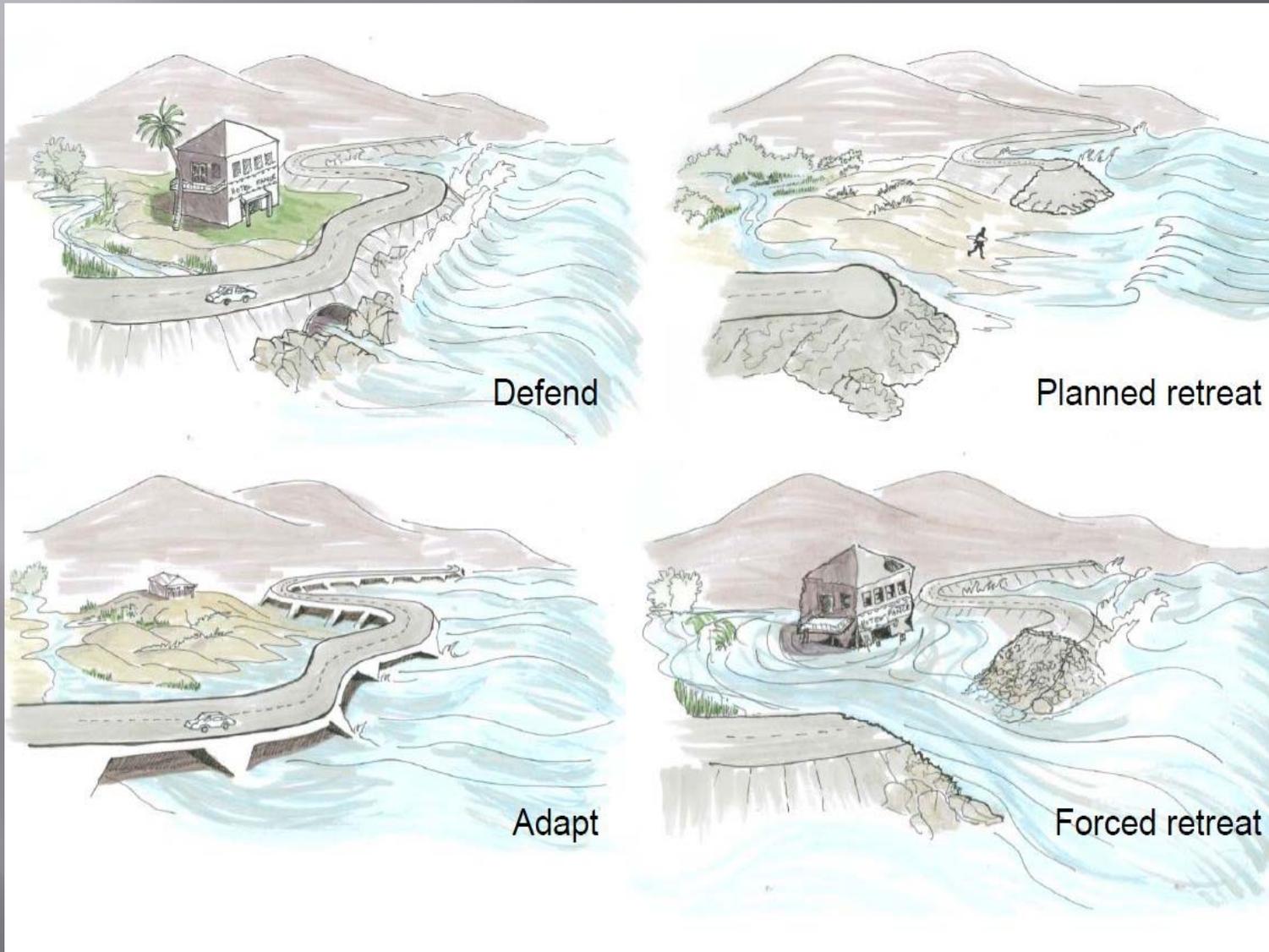
- 19,047 Department Employees (thousands of engineers and field personnel)
- 7,750 Pieces of equipment
- 2 Aircraft
- 50,679 Lane miles of road
- 12,747 Bridges
- 330 Maintenance stations
- 713 Changeable Message Signs (CMS)
- 87 Safety roadside rests
- 364 Vista points
- 309 Park and Ride Lots
- 25,000 Acres of Landscaping
- 310 Pumping plants
- 1703 Closed Circuit TV Cameras (CCTV)
- 87 Safety roadside rests
- 323 Park and Ride Lots (P&R) and 87 Safety Roadside Rest Areas
- 143 Highway Advisory Radio stations (HAR)
- 4,000 handheld radios
- 1,000's of mobile radios
- Signals
- Safety barrier systems
- Drainage systems
- Electrical systems
- Ferries
- Tunnels and tubes

# FEMA Recognized Types of Disasters

1. Chemical Emergencies
2. Dam Failure
3. Earthquake
4. Fire or Wildfire
5. Flood
6. Hazardous Material
7. Heat
8. Hurricane
9. Landslide
10. Nuclear Power Plant Emergency
11. Terrorism
12. Thunderstorm
13. Tornado
14. Tsunami
15. Volcano
16. Wildfire
17. Winter Storm

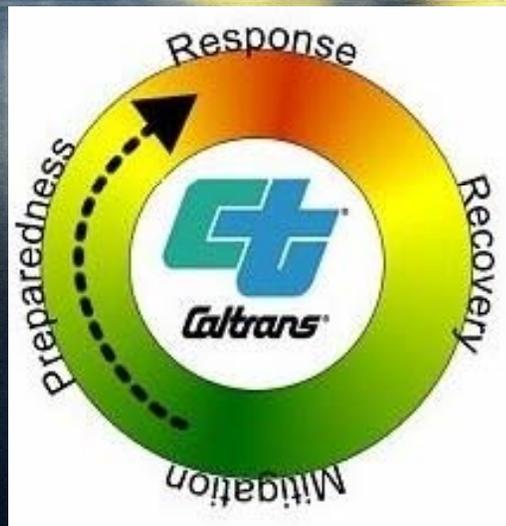


# Statewide Vulnerability Assessments



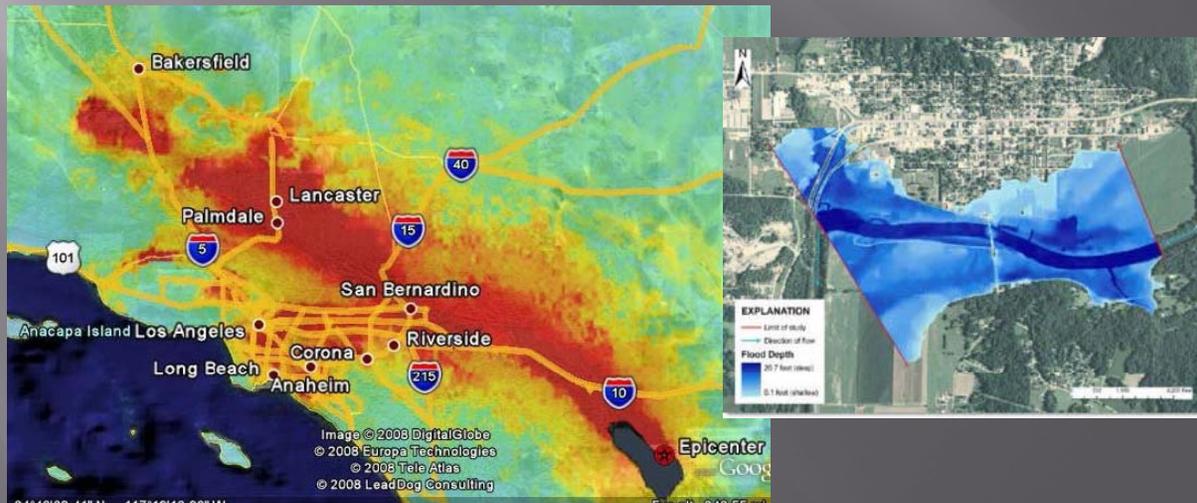
Sea Level Rise Adaptation Options

# HAZARD MAPPING



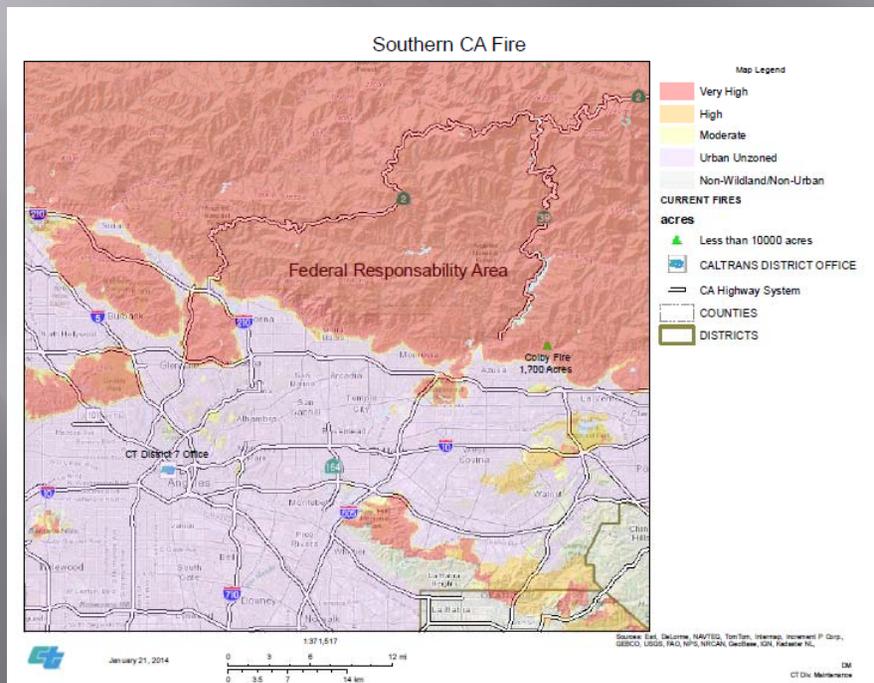
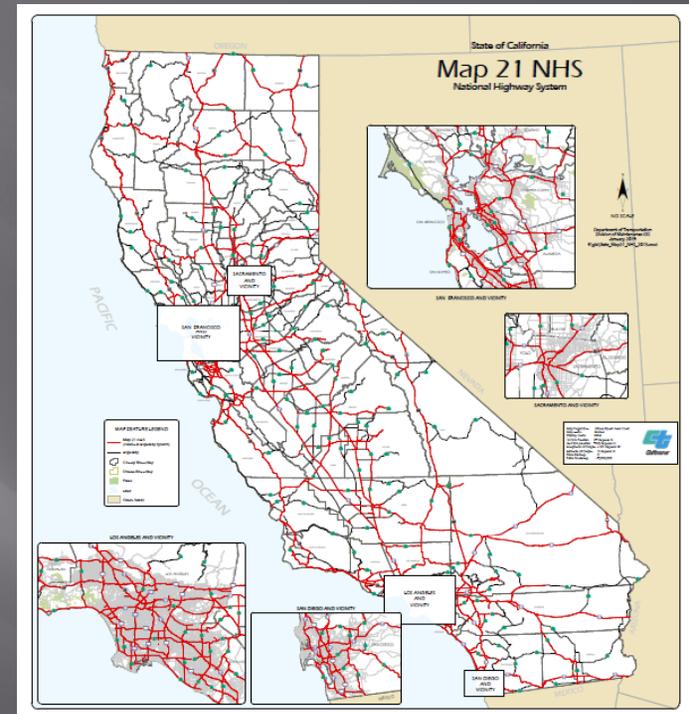
# PREPARATION

- ▣ The effective use of Hazard Maps decreases the magnitude of disasters
- ▣ Hazard Maps provide information on the range of possible damage and disaster prevention activities



# CALTRANS MAPS

Earthquake + Fire Maps  
Flood + Landslide Maps  
Supply Chain Maps  
Traffic Flow Maps



# Integrated Approaches Across Disaster Risk Assessment Tools

## Hazard Assessment and Response

- ▣ ShakeCast
- ▣ FloodCast
- ▣ FireCast
- ▣ SnowCast





# FloodCast



# FireCast



# SnowCast





Thanks!

