## COASTAL DATA EXCHANGE

### **STATE OF HAWAII MULTI-HAZARD MITIGATION PLAN 2013**



Ian Duncan, State Hazard Mitigation Officer Hawaii State Civil Defense Gary Chock, S.E. Martin & Chock, Inc.

#### The State Hazard Mitigation Plan:

- Identifies the hazards and risks posed by natural & technological disasters
- Identifies actions & activities to reduce losses from those hazards
- Establishes priorities and a process to implement those actions.

Hazard mitigation is action taken to permanently reduce or eliminate longterm risk from the effects of natural hazards.

The purpose of multi-hazard mitigation is twofold:

- **1.** to protect people and structures from harm and destruction;
- 2. to reduce the costs of disaster response and recovery.



**Disaster Hazard Mitigation Plan for the State** of Hawaii 2013



## **Organization of the Plan**

Executive Summary		13. Coastal Erosion	
1. Introduction		14. Droughts	
2. Mitigation Planning		15. Wildfires	
3. Land Use and Develo	pment	16. Volcanic Hazards	
4. High Wind Storms		17. Health Risk and Vulnerability Assessment	
5. Tropical Cyclones	<u>s</u>	18. Hazardous Materials	
6. Tsunamis		19. Climate Change Effects	
7. Earthquakes		20. Risk Assessment	
8. Landslides and Rock	Falls	21. Mitigation Strategy	
9. Floods		21. Planning Processes & Update Procedures	
11. Dam Failures		22. References	
12. High Surf		COASTAL DATA EXCHA	NGE

#### **Hazard Mitigation Plan Ranking of Highest Risks**

Hawaii	Maui	Oahu	Kauai
Hurricanes	Tsunami	Hurricanes	Hurricanes
Earthquakes	Hurricanes	Tsunami	Tsunami
Tsunami	Earthquakes	Earthquakes	Floods
Lava	Floods	Floods	Dam Failure
Floods	Dam Failure	Dam Failure	Debris Flows &
			Rockfalls

Risk is the expected losses from an evaluation of the probabilities of hazards with their potential to cause adverse effects on our life; health; economic wellbeing; social, environmental, and cultural assets; infrastructure; and the services expected from institutions and the environment.

The Hazard Mitigation Plan analytically ranked the severity of risk as measured by equivalent average annual economic losses

#### Planners use the State Hazard Mitigation Plan data for

#### County Plans

- General Plans Incorporate considerations of Multi-Hazards into Planning for Disaster Resilience and economic sustainability
- Hazard Mitigation projects to build greater disaster resilience
- Setbacks
- Shoreline Certification
- Shoreline Permits
- Building Permits
- Special Area Management Permits
- Flood Zones
  - Design of Critical Infrastructure and Networks L DATA EXCHANGE



# Summary: The Hazard Mitigation Plan now includes a detailed Disaster Resilient Strategy

#### Disaster Resilient Key Areas:

- Hurricanes, High Winds, and Floods
- Tsunami and Earthquakes
- Droughts and Wildfires
- Other hazards: Volcanic Hazards; Landslide/Rockfall; Coastal Erosion/High Surf / Dam Failures; Hazardous Material
- Health Vulnerability and Risk
- Climate Change Adaptation
- Multi-Hazard Actions
- Land Use and Building Requirements
- Infrastructure Resilience
- Recovery and Macro-Economic Effects
- Threat Identification and Risk Analysis (THIRA) Implementation

#### **Questions and Comments?**

- Ian Duncan <u>IDuncan@scd.hawaii.gov</u> 733-4300 x555
- Havinne Okamura <u>hokamura@scd.hawaii.gov</u> 733-4300 x556
- Gary Chock <u>gchock@martinchock.com</u> 521-4513

