

HAZUS Scenario Development for Impact Analysis (to support local planning)

Task description:

Complete preliminary tsunami risk assessments using the HAZUS module for the 20 coastal counties and two tsunami risk-level maps (475yr and 975yr average return periods). Distribution of these products through an easy-to-use platform will help communities improve their response, mitigation, and recovery planning.

What will be achieved:

- Complete HAZUS-based tsunami risk assessments for 20 coastal counties using two risk level maps (475- and 975-year average return periods), and initial development of a platform to disseminate this information.
- Develop detailed, community-level reports for these data
- Initial development of a platform to disseminate this information



Benefits and Uses

Provide data, estimates, and reports to support

- Response planning Exercises with realistic scenarios
- Emergency Operations Planning
- Support Local Hazard Mitigation Planning
- Support debris planning
- Support Recovery Planning

State Level Planning

The HAZUS Library results can inform a multitude of plan updates and help guide the implementation of recommendations from planning efforts. These include:

- **The 2018 State Hazard Mitigation Plan,**
 - Earthquake Chapter
 - Volcano Section
 - Tsunami Section
- **The Southern California Catastrophic Response Plan**
- **The Bay Area Earthquake Plan**
- **The California Cascadia Subduction Zone Earthquake and Tsunami Response Plan**

Other authorities and planning efforts assisted by this information may include

- **Threat and Hazard Identification and Risk Assessment (THIRA)**
- **The California Disaster Assistance Act**
- **Standardized Emergency Management System**

A categorized list of tables, analysis, and findings derived from HAZUS output data will readily inform all the above plans and processes.

Audience

- The availability of these products will be broadcast to agency and community partners and descriptions of the resources with links will be provided on various State webpages with hazard planning and mitigation information.
- There are several hazard-specific networking groups through which the Cal OES Earthquake and Tsunami Program is able to coordinate availability of this new information. These include regional
 - Earthquake Country Alliance Bay Area,
 - Earthquake Country Alliance Southern California
 - the Redwood Coast Tsunami Work Group
 - California Tsunami Steering Committee
 - Cal OES Regional MARACs
 - the California Emergency Services Association.
- Additionally major outreach opportunities include
 - the Great California ShakeOut (10 million participants in 2018) and the
 - California Tsunami Preparedness Week (350,000 participants in 2018) and
 - Preparedness Month.

HAZUS Scenarios by County - Initial Scope:

Estimate tsunami (non-earthquake) losses using HAZUS for each of the selected scenarios, ensuring:

- Use of enhanced (Level 2) data, where available, and the default data elsewhere
- Generation of both Quick Assessment Summary and Global output reports

In consultation w/Cal OES EQTSU program staff, prepare a suite of HAZUS output maps and associated reports for each scenario event.


HAZUS Scenario Outputs by County (1):






















- Tsunami Scenario Map Output examples (by Census Tract unless specified)
 - Tsunami Inundation Area for this Scenario
 - Direct Economic Losses
 - Casualties at 4 levels of severity
 - Building Damage
 - Displaced Households
 - Short-term Shelter Needs
 - Day 1 w/o Power
 - Population
 - Income
 - Day 1 water functionality
 - Police/Fire/Airports (points)

HAZUS Scenario Outputs by County (2):

- Tables
 - Direct economic loss for buildings by county
 - Short term shelter needs by county
 - Casualties summary report by county
- Summary Reports
 - Global Summary Report
 - Quick assessment reports
 - 2 A.M. (at home time)
 - 2 P.M. (at work time)
 - 5 P.M. (commute time)

Index of /pub/dmg/rgmp/CalEMA2009/Appendix A/

 [\[parent directory\]](#)

	Name	Size	Date Modified
	N1 SAF_SAS+SAP+SAN+SAO.pdf	5.4 MB	6/29/09, 5:06:00 AM
	N10 HRC_HS.pdf	4.3 MB	11/8/10, 3:01:00 AM
	N11 HRC_HN.pdf	4.2 MB	6/29/09, 7:10:00 AM
	N12 HRC_HS+HN.pdf	3.9 MB	6/29/09, 7:11:00 AM
	N13 HRC_RC.pdf	3.6 MB	6/29/09, 7:13:00 AM
	N14 HRC_HN+RC.pdf	4.7 MB	6/29/09, 7:14:00 AM
	N15 HRC_HS+HN+RC.pdf	5.6 MB	6/29/09, 7:15:00 AM
	N16 CLV_CS.pdf	4.1 MB	6/29/09, 7:16:00 AM
	N17 CLV_CC.pdf	4.6 MB	6/29/09, 7:23:00 AM
	N18 CLV_CS+CC.pdf	4.2 MB	6/29/09, 7:24:00 AM
	N19 CLV_CN.pdf	4.8 MB	6/29/09, 7:25:00 AM
	N2 SAF_SAS+SAP+SAN.pdf	5.5 MB	6/29/09, 6:53:00 AM
	N20 CLV_CC+CN.pdf	4.8 MB	6/29/09, 7:26:00 AM
	N21 CLV_CS+CC+CN.pdf	4.8 MB	6/29/09, 7:27:00 AM
	N22 CGV_CON.pdf	4.0 MB	6/29/09, 7:28:00 AM
	N23 CGV_GVS.pdf	4.3 MB	6/29/09, 7:29:00 AM
	N24 CGV_CON+GVS.pdf	4.3 MB	6/29/09, 7:30:00 AM
	N25 CGV_GVN.pdf	4.9 MB	6/29/09, 7:31:00 AM
	N26 CGV_GVS+GVN.pdf	5.0 MB	6/29/09, 7:41:00 AM
	N27 CGV_CON+GVS+GVN.pdf	4.6 MB	6/29/09, 7:33:00 AM
	N28 SGF_SGS.pdf	3.1 MB	6/29/09, 7:34:00 AM