



DEPARTMENT OF CONSERVATION

PUBLIC AFFAIRS OFFICE

801 K STREET • MS 24-07 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 323-1886 • FAX 916 / 323-1887 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov

FOR IMMEDIATE RELEASE

NR#2015-05

March 20, 2015

Contact:

Teresa Schilling/Don Drysdale

(916) 323-1886

NEW TOOLS HELP STATE, COASTAL COMMUNITIES PREPARE FOR THREAT OF LARGE TSUNAMIS

Tsunami Preparedness Week is March 22-28

SACRAMENTO -- Recent studies indicate that a large tsunami could cause tens of billions of dollars in damage and endanger millions of coastal residents and visitors in California. Such a tsunami could result from a large earthquake in Alaska or the Aleutian Islands or be generated locally by a quake on the Cascadia Subduction Zone north of Cape Mendocino.

"We face a double threat from local and distant tsunami sources, and we have a large population that lives by the coast, so we have to plan accordingly," said Rick Wilson, a Senior Engineering Geologist with the California Geological Survey (CGS).

March 22-28 has been designated as Tsunami Preparedness Week. CGS is working with the California Governor's Office of Emergency Services (Cal OES) to develop new tools to prepare coastal communities for the next major tsunami. These tools include a tsunami preparedness strategy that complements the successful "Great ShakeOut" experience for earthquakes; tsunami response "playbooks" for local evacuation and harbor planning; and guidance for reinforcing harbor structures against tsunamis and recovering after tsunamis.

Tsunami preparedness experts have envisioned a new way of reaching out to communities and the public at large by looking at what has worked for earthquake preparedness.

"We want to build on the success over the years of 'The Great ShakeOut' earthquake drills, which have encouraged millions of people to conduct 'drop, cover, and hold on' drills, and generate similar website preparedness information and muscle-memory drills for tsunamis," said Kevin Miller, the tsunami preparedness lead for Cal OES.

Coordinating with the Southern California Earthquake Center and the National Oceanic and Atmospheric Organization's (NOAA) National Tsunami Hazard Mitigation Program (NTHMP), Cal OES has developed the TsunamiZone.org website, where the public can learn about local tsunami preparedness activities and register for them online. This website is becoming popular enough that Cal OES is working with other states and

territories in the U.S. through the NTHMP to develop their own pages on the website.

“California has taken the lead nationally on the TsunamiZone.org website as well as other tsunami products of national importance,” said Mike Angove, lead of the NOAA Tsunami Program.

To assist communities with tsunami response planning in their jurisdictions, CalOES and CGS are taking an approach analogous to a sporting event. With support from the NTHMP, tsunami response “playbooks” are being developed to help coastal communities and harbors plan or defend against tsunamis of different sizes.

Tsunami evacuation playbooks will help emergency managers concentrate their response to the areas of highest flooding potential by creating secondary evacuation zones that can be used in real-time. The playbooks will be selected after consideration is given to the impacts of tides and storm surge on tsunami flooding.

“We’ve only had two options in the past,” said Mike Davis, an emergency manager for San Diego County. “Either we just clear beaches or we evacuate our entire tsunami evacuation zone, which includes tens of thousands of residents. These playbooks will allow us to perform focused evacuations based on more accurate information about the tsunami.”

Davis and other coastal emergency managers like the fact that the playbooks will reduce the potential for over-evacuation, which can cause additional hazardous conditions for a panicked public.

Similar to the evacuation playbooks, maritime response playbooks are being developed for harbors and ports. Because tsunamis can cause different hazardous conditions not only between harbors but also within each harbor, CGS and Cal OES are working with the Federal Emergency Management Agency (FEMA) to create detailed maps for tsunami scenarios of different sizes. These maps, which are based on numerical tsunami modeling performed by the University of Southern California, identify where strong, damaging currents are most likely to occur. They also provide guidance about whether boats should be moved, and if so where, under different tsunami conditions, and also about how infrastructure could be strengthened.

“Our harbor sustained damage in both the 2010 Chile and 2011 Japan tsunamis,” said John Higgins from the Ventura Harbor Patrol office. “We’ve been working with the state and FEMA over the past several years to develop these maritime response playbooks, which will help us reduce the potential for damage in susceptible areas of our harbor.”

The State is also partnering with FEMA on the development of longer-term answers to tsunami hazards. Plans are underway to evaluate direct mitigation measures that will help reinforce harbor and port facilities and streamline their recovery efforts after future tsunamis.

“Although we know we can’t completely eliminate the impacts of tsunamis, “we hope that this ‘new wave’ of tsunami planning tools will save lives and create more resilient coastal communities,” said Ed Curtis, a coastal engineer with FEMA.

For more information and examples of these new tsunami preparedness products, visit the TsunamiZone.org or www.tsunami.ca.gov websites.

###