

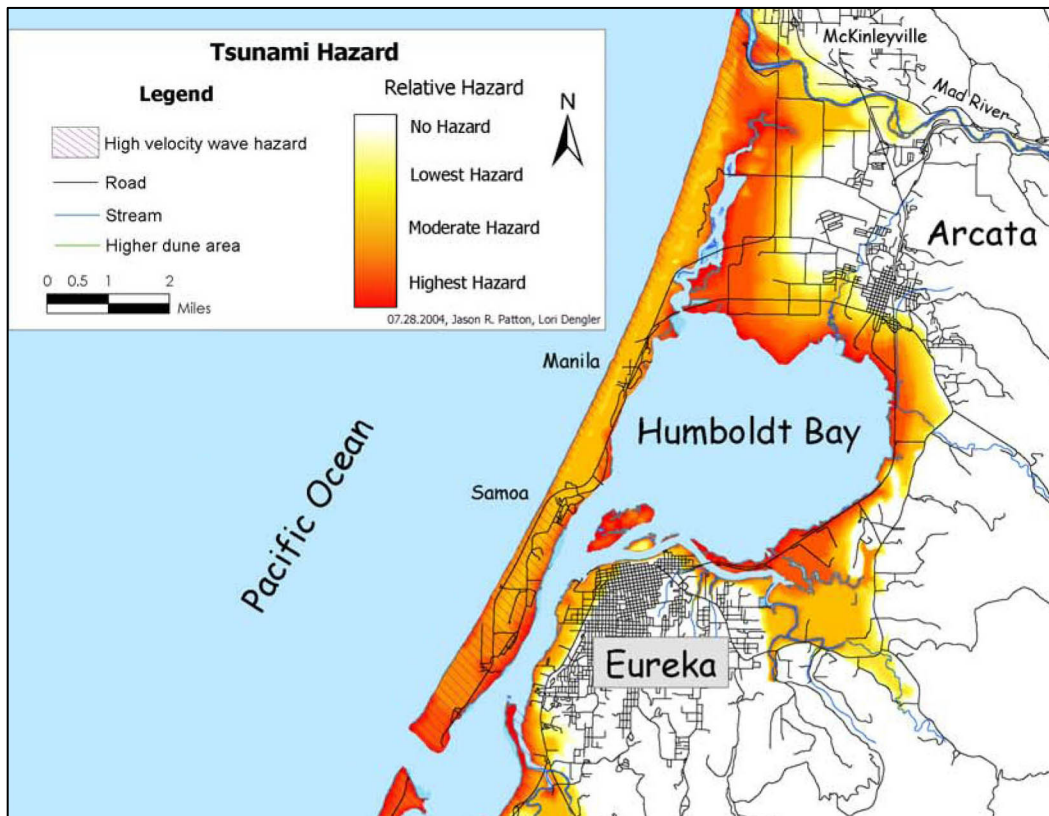
Times Standard

Not My Fault: Tsunami Week Wrap 2026: Kudos and Areas We Need to Improve

Lori Dengler for the Times-Standard

Posted March 28, 2026

<https://www.times-standard.com/2026/03/28/lori-dengler-tsunami-week-wrap-2026-kudos-and-areas-we-need-to-improve/>



Relative tsunami hazards in the Humboldt Bay region. This map was an educational tool compiled in 2004 to illustrate that some areas are far more likely to be flooded by a tsunami than others. Areas in dark red next to the coast have the greatest hazard and are the only zones at threat from even the largest tsunami coming from far away like 1964 Alaska. The orange areas on the map were our best estimate of flooding from a Cascadia tsunami and the palest yellow an added layer of protection for the most extreme event.

What was accomplished in this year's Tsunami Preparedness Week? There is no tool to measure participation or what was learned – the final grade will be in how well we function in the next real tsunami event. If you are reading this, that's one positive check mark that we've increased awareness and there are plenty of others. But perhaps the most important part of any outreach campaign is highlighting the areas we need to improve.

Tsunami Week on the North Coast includes many parts, some more visible than others but all important. There were drills and exercises, public meetings, talks and presentations. Many

groups launched social media campaigns and held targeted outreach efforts. Del Norte, Humboldt, and Mendocino Counties all used this week to test their emergency notification systems.

The most talked about tsunami week event was Wednesday's tsunami evacuation drill coupled with an emergency notification systems test. We started doing tsunami tests in 2008 and until last year, those tests were focused on far-field tsunamis like the 2011 Japan Great East Japan earthquake. Those tests included using the Emergency Alert System (EAS) with interruptions on radio and television stations. The December 5, 2024, and July 29, 2025, tsunamis were real events that triggered EAS, and it seemed too soon to bombard everyone with similar messages that were only a test. The hope this year was for people to self-organize evacuation drills in high-hazard areas, triggered by county notifications.

All California counties have notification systems. On the North Coast, the systems are through Everbridge and require you to sign up in advance in order to receive alerts. Del Norte and Mendocino Counties used the occasion to test their entire county system with a simple message at 11 AM on Wednesday that it was only a test. I got a text alert from Cal Poly Humboldt's emergency notification system but was a little miffed when no Humboldt County message arrived on my phone or email, especially after telling everyone to expect it. For reasons I don't understand, a decision was made by Humboldt Office of Emergency Services (OES) only to send messages to 9000 targeted recipients near Humboldt Bay. I don't know how that list was selected and it did not include a number of people who I know are signed up for messages and live in the mapped tsunami zone.

Communication is the backbone of successful emergency planning and response, and Humboldt definitely dropped the ball. I haven't talked to anyone involved in that decision so I can't speculate on their reasoning. County folks were certainly privy to the education campaign leading up to the drill and even posted Facebook messages about expecting notifications. Humboldt OES is currently in transition between directors and I'm hoping once the new person is in place, we will have more clarity. In emergency management, transitions can make for vulnerability and it's a time for particular care as Mother Nature pays no attention to who is running the ship.

Drill participation was spotty. Always at the top of the list is Redwood Coast Montessori School in Manila. The 100+ students and staff at the school on the Samoa Peninsula is very aware of their vulnerable location and puts earthquake and tsunami preparedness at the top of new school year activities, requiring each student to use backpacks as preparedness kits. The school drills every month with a random alert to practice Drop, Cover, Hold-On during an imaginary earthquake followed by grabbing their backpack/emergency kits and marching in an orderly way to the high dune evacuation site. It's become such a routine activity, that no-one is frightened, and everyone knows exactly what to do.

I learned about the effectiveness of training school children in post tsunami field studies to Chile and Japan. All Chilean school children must participate in regular monthly emergency drills relevant to their geographic area. In the Andes it might be landslides and volcanic eruptions. In coastal areas, it's earthquakes and tsunamis. Known as Operación Deyse, it was initiated nation wide in 1966. I talked to many survivors of the 2010 Chile tsunami that occurred in the early

morning hours of a Saturday and was told of children calmly taking their parents hands and guiding them to safety.

An even more dramatic story emerged from the town of Unosumai in Japan in 2011. A special program had been instituted in the area to teach elementary and middle school children on personal preparedness. Even though the third floor of their school had been designated safe from tsunamis, the students had been trained that evacuation inland was always a safer alternative. The older students led the way, evacuating on foot and everyone survived. The tsunami was larger than expected and the third floor of the school was completely flooded. Called the Miracle of Kamaishi, school children throughout the area were far more likely to survive than those in other regions

(https://www.japanfs.org/en/news/archives/news_id034287.html). I don't call it a miracle – it was the result of hard work and training.

Many North Coast groups used tsunami week for outreach activities and internal exercises. On Thursday, California State OES conducted an exercise for emergency managers with over 200 participants from all but one of California's coastal counties. The group ran a playbook exercise working through their response to a repeat of the Kamchatka tsunami event. Former student and now Tsunami Planning Coordinator for OES' Seismic Hazards Branch described it as "some of the best engagement from Coastal Counties yet." I haven't the room to describe all of the other outreach efforts, but here's a quick nod to tribes, CERT groups, CUNA (Arcata's Latinx resilience center), Redwood Coast Regional Center (disability support group), Humboldt Grange, and other groups who took advantage of the week to promote tsunami safety.

Del Norte County leads the way when it comes to tsunami outreach and preparedness in Northern California. It's the only California county to conduct county-wide tsunami evacuation drills. Del Norte officials ran a tsunami week media campaign including radio and social media spots and all schools in the county will be a part of the April 11 – 18 Kamome Festival that celebrates the Sister City relationship with Rikuzentakata. Del Norte used this week to launch the new the Del Norte Tsunami Prepared Hospitality Business Initiative. The tourist industry has been one of the hardest to engage in earthquake and tsunami preparedness efforts. A number of reasons are given from not wanting to frighten visitors, resource limitations, and rapid staff turnover. Del Norte has taken the problem head on by providing materials targeting visitors, training for hospitality industry staff, site-specific hazard maps, and giving special recognition to businesses who participate.

It is heartwarming to see how our tsunami preparedness activities have taken off over the past several decades but there are still enormous challenges. The biggest one is how to get your attention BEFORE a tsunami occurs. We are a society that has become addicted to instant information and assume there is no need to pay attention until it is staring at you in the face. I've tried every approach I can imagine, in print, video, art and still I get people saying to me after an event "why didn't you tell me?" It's impossible to reach everyone, but one lesson from Chile's Deyse (pronounced daisy) program is that you only need to get the attention of 10% of folks and get them to spread the word and set an example. And if that 10% is children, all the better.

I'll leave you with one more image of how to think about the tsunami threat and pass on to your unaware neighbors. In 2003, Jay Patton was a grad student in our department, and we put

together a series of relative tsunami hazard maps. Jay is now one of the leads in the California Geologic Survey's tsunami program and has always been a whiz at GIS. Our maps were qualitative, intending to illustrate areas most likely to be affected, areas rarely at risk, a regions safe no matter what. We used a color ramp with areas on the coast and next to the bay in red. Those are the areas that could be flooded in a major tsunami coming from far away such as Alaska in 1964. A great earthquake on the Cascadia subduction zone will penetrate further inland and is depicted by the orange areas on the map. All Cascadia tsunamis are not the same and for an added layer of safety, we also considered the most extreme event shown by the pale yellow. If you are in the white area of this map, or the green on the tsunami zone maps, you are safe where you are. If you are in a red, orange, or yellow area, plan evacuation route now and practice it on a nice sunny day so that you know what to do when no one is around to guide you.

Lori Dengler is an emeritus professor of geology at Cal Poly Humboldt, and an expert in tsunami and earthquake hazards. The opinions expressed are hers and not the Times--Standard's. All Not My Fault columns are archived online at <https://kamome.humboldt.edu/taxonomy/term/5> and may be reused for educational purposes. Leave a message at (707) 826-6019 or email Kamome@humboldt.edu for questions and comments about this column or to request copies of the preparedness magazine "Living on Shaky Ground."