



GET READY, SANTA BARBARA!

KNOWING YOUR RISKS

Storm Surges

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In coastal regions, storm surge is often the deadliest phenomenon associated with tropical or extra-tropical systems. Storm surge from intense storms can exceed 25 feet in some locations. The maximum potential storm surge for a particular location depends on a number of factors. Storm surge is sensitive to:

- storm intensity (both the wind strength and atmospheric pressure drop contribute to the surge)
- speed of forward movement
- size of the storm (often defined by the radius of maximum winds)
- angle of approach to the coast
- the shape and characteristics of the coast (including landfall location, land elevations, barrier islands, rivers, bays, lagoons, and so forth)
- slope of the continental shelf

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The momentum of wind waves and wave breaking in shallow water contribute to surge levels as well.

When a storm is traveling over open ocean water, the wind and waves drive the water forward. Because this is happening in the open ocean, the water can move away from the storm and does not build up. However, as the storm moves toward land and the ocean becomes shallow, the storm surge has no place to go and builds up as the storm approaches land.

Click on picture to see an example of a surge wave



For more information go the NOAA website regarding Storm Surges.

Santa Barbara History– *The late 80's drought*

Historical records show that local drought periods of several years or more are cyclical, recurring about every forty years. Tree ring studies covering time periods of several centuries reveal apparent droughts lasting as long as 16 years or more. Current records show droughts in Santa Barbara County have lasted an average of five years.

The most recent drought occurred from 1986 until 1991 and included some of the driest years on record. The drought had serious impacts on water users and the environment. Statewide, farmers lost or could not plant crops, forests were damaged and many trees died, urban water users were forced to conserve unprecedented amounts of water, and fisheries suffered from greatly reduced flows in rivers and lowered reservoir levels. The Central Coast region of California was particularly hard hit by the drought.

The impact of the drought on the Central Coast was intensified by the fact that water purveyors in San Luis Obispo and Santa Barbara counties were entirely dependent on local water supplies at the time the drought occurred. By late 1989, the City of Santa Barbara's Gibraltar Reservoir was completely empty. Lake Cachuma, the primary regional water supply reservoir which serves several communities in the Santa Barbara area, was drawn down to only 14% of capacity by February 1991, its lowest level since the lake first filled in 1957.

Upcoming Issues

APRIL
Earthquakes



MAY
Fire Season



JUNE
Pests



JULY
Technological Disasters

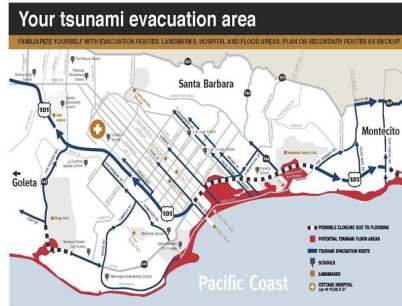


AUGUST
Drought



11 Facts About Tsunamis

1. A tsunami is a series of ocean waves caused by an underwater earthquake, landslide, or volcanic eruption. More rarely, a tsunami can be generated by a giant meteor impact with the ocean.
 - These waves can reach heights of over 100 feet.
2. About 80 percent of tsunamis happen within the Pacific Ocean’s “Ring of Fire.”
3. The first wave of a tsunami is usually not the strongest, successive waves get bigger and stronger.
4. Tsunamis can travel at speeds of about 500 miles or 805 kilometers an hour, almost as fast as a jet plane.
5. The states in the U.S. at greatest risk for tsunamis are Hawaii, Alaska, Washington, Oregon, and California.
6. If caught by a tsunami wave, it is better not to swim, but rather to grab a floating object and allow the current to carry you.
7. Tsunamis retain their energy, meaning they can travel across entire oceans with limited energy loss.
8. Tsunami means “harbor wave” in Japanese (tsu = harbor + nami = wave), reflecting Japan’s tsunami-prone history.
9. Scientists can accurately estimate the time when a tsunami will arrive almost anywhere around the world based on calculations using the depth of the water, distances from one place to another, and the time that the earthquake or other event occurred.



Evacuation Map developed by Chapman University

The first wave of a tsunami is usually not the strongest, successive waves get bigger and stronger.



10. Hawaii is the U.S. state at greatest risk for a tsunami – they get about one per year and a damaging one every seven years. The biggest tsunami that occurred in Hawaii happened on April 1, 1946, where the coast of Hilo was hit with 30 foot waves coming in at 500 miles per hour. 170 people died as a result.
11. In 2004, the Indian Ocean tsunami was caused by an earthquake that is thought to have had the energy of 23,000 atomic bombs. Within hours of the earthquake in 2004, killer waves radiating from the epicenter slammed into the coastline of 11 countries, damaging countries from east Africa to Thailand. By the end of the day, the tsunami had already killed 150,000 people. The final death toll was 283,000.

In September 2012, the City of Santa Barbara was designated by the National Weather Services as a *TsunamiReady City*®. As a part of that designation, Tsunami Warning Signs were placed in vulnerable areas of our coastline. The City’s Office of Emergency Services (OES) worked with Chapman University on Developing a Tsunami Preparedness Brochure and developed a Tsunami Response Plan that can be assess at the Office of Emergency Services website at the following link:

<http://www.santabarbaraca.gov/gov/depts/fire/oes/default.asp>

The *TsunamiReady City*® designation is updated every three years and in 2015, we will be ready for NOAA to come and assess our area.

Are You Ready?

The CERT Corner –A PLAN AT WORK

With winter sweeping through forty nine states this year you probably got a good taste of the experience that lasts a season for much of our country; if you traveled. This was my experience with a recent week in Bend, Oregon. With the assurance that winter in Central Oregon is mild by winter measurements in other areas of the Northwest, I flew to Bend, Oregon via Portland. The trip up was simple, the weather in the 40's. Just like the internet joke that begins with, "The weather is wonderful! So nice! Snowflakes gently falling and I am in a wonderland," the same thought occurred to me as I looked out the window of my snug guest room on Day One. "We're in for it," muttered my hostess. I poured a cup of tea and admired the deer standing in the snow outside.

The storm had a name, Orion, and Orion dropped twenty four inches at our location in twenty four hours. The roads turned icy, then more snow, then more ice. The lanes, if you were driving, narrowed to mere trails, and only four wheel drive cars and trucks were moving. Semi trucks were pulled to the side of the road. Schools closed. The residents worried about power, and when my friend Helen said we might lose ours, and maybe for a few days, she said to not worry. "We put the contents of the freezer outside in the snow." Hmm, I mused to myself, this sounds like a plan, and indeed it was.

The roads became impassable to all but a few cross country skiers as the snow built up. Transportation became a huge issue. The hospital stayed open by having the staff delivered by the Search and Rescue Team. Neighbors plowed the driveways of other neighbors. They dug out mailboxes and called each other to check in.

The temperature dropped, and neighbors called neighbors again to make certain pipes were not freezing, and to make sure heating systems were working properly. The nearby airport closed because of ice. Portland's airport closed for the same reason, and I prepared for travel delays by doing

laundry and checking the airport and reservations status on an hourly basis. It didn't matter, I wasn't going anywhere. The only people who traveled were those who rented cars and took the interstate to Seattle and then flew from Seattle.

On the third day the snow plows drove by in a convoy. A snow emergency had been declared, and everyone hailed the passing of the big trucks with their blowers and bulldozer blades followed by trucks dumping crushed lava rock. A new wave of motivation seized the residents, and they were out in force with shovels, clearing their own driveways of now what appeared to be mountains of snow. Once again neighbors helped neighbors. Even the grumpy participated.

In that part of the country, it is uncommon for this volume of snow, and planning avoided catastrophe. From the hospitals and clinics to the highway department, to the neighbor next door, a plan was evident. We call it Shelter in Place. In Oregon they used the term "hunker down."

As a visitor I was fascinated with how automatically and smoothly everything went—automatically because they used their plan. March is a great month to check and rehearse your plan, for ourselves, our families, our neighbors, and our community. CERT provides training for making a plan and implementing it, and we are so very fortunate to have Community Emergency Response Team training right here in Santa Barbara. For information on CERT training, contact Yolanda McGlinchey, Emergency Services Manager for the City of Santa Barbara at (805) 564-5711 for time and dates of our next training.

Two days later than planned I boarded the plane for Santa Barbara. When I landed, the sun was shining, the temperature was seventy seven. Ah, I thought to myself, palm trees and a plan. Good idea.



Stella Larson,
Mesa Resident

March Facts—The Santa Barbara Channel Islands!

Separated from the California mainland throughout recent geological history, the Channel Islands provide the earliest evidence for human seafaring in the Americas. It is also the site of the discovery of the earliest paleontological evidence of humans in North America. The Northern Channel Islands are now known to have been settled by maritime Paleo Indian peoples at least 13,000 years ago. Archaeological sites on the island provide a unique and invaluable record of human interaction with Channel Island marine and terrestrial ecosystems from the late Pleistocene to historic times. Historically, the northern islands were occupied by the Island [Chumash](#), while the southern islands were occupied by the [Tongva](#). San Nicolas has had a book written about the indigenous peoples living on the island, [Island of the Blue Dolphins](#). Our channel islands are not only beautiful, but full of folklore. For more information [click here](#).

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We're on the Web!

www.santabarbaraca.gov/oes

and



Emergency Kit Recipes –

Curried Tuna Burger with Island Brown Rice

Prep Time:
15 min
Total Time:
20 min

Ingredients

For Curried Tuna Burger

- 8 ounces packaged tuna
- 4 Mayonnaise packets
- ¼ cup bread crumbs plus additional for breading
- 1 tablespoon curry powder
- ¼ cup dried trail mix fruit chopped
- Vegetable oil for frying

For Island Brown Rice

- 16 ounces of Uncle Ben's Ready Rice Whole Grain Brown Rice
- 3 ounces canned chills
- 8 ounces coconut water
- 1 can diced pineapple
- 2 tablespoons Pica pepper sauce
- 1 teaspoon cardamom
- 1 tablespoon coconut oil
- Salt and pepper as needed.

Directions

For Curried Tuna Burger

1. Mix the first 5 ingredients together to form a tight mixture. Adjust texture with more bread crumbs, and seasoning with salt, pepper or curry.
2. Form the mixture into 4 patties, dredge in additional bread crumbs and fry gently until golden brown and warmed through.
3. Serve with Spicy Siracha Mayonnaise (mix mayonnaise with the desired amount of Siracha sauce).

For Island Brown Rice

1. Combine all ingredients in a covered pot.
2. Heat gently until the liquids are absorbed

Recipe courtesy of www.emergencykitcookoff.org

If you want to find more Emergency Recipes like this, [Click here](#)

Do you have an Emergency Kit Recipe you want to share? Maybe you have a healthy or crazy recipe or maybe you have a question about something. We want to hear from you! Send us your recipes, or questions to PRomero@SantaBarbaraCa.gov

Upcoming Events

March 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 National Pig Day
2	3 National Anthem Day	4 Reading and Lecture by Timothy Egan. UCSB, Campbell Hall 8pm	5	6	7 Employee Appreciation Day	8
9 Daylight savings time: Adjust your clocks	10	11	12 Spanish CERT at Franklin Center	13	14 National Potato Chips Day	15
16 Freedom of information Day	17 St. Patrick's Day	18	19 Spanish CERT at Franklin Center	20 Spring Equinox	21	22
23	24	25	26 Spanish CERT at Franklin Center	27	28	29
30 National Doctor's Day	31					