

# PCEMA

*Pacific County Emergency Management Agency*

# Preparedness Post

Volume I, Issue 9 July 2012

In  
This  
Issue

## Tsunami Debris Arrives Earlier than Expected



This image is part of a boat that washed onto Benson Beach (Ilwaco) in June.

Upcoming CERT  
Opportunities

PCEMA Honors  
Volunteers

Ocean Park &  
Chinook Talk  
Tsunamis

Share How You  
Prepare!



# Tsunami Debris is a Complicated Issue

On March 11th, 2011 the east coast of Japan experienced an earthquake and tsunami that devastated the region. According to the Japanese Ministry of the Environment, an estimated 5 million tons of disaster debris was washed out into the ocean. It has been estimated that 70% of the debris sank near the coast of Japan, leaving 1.5 million tons to drift further on. Although initial NOAA predictions did not foresee the arrival of tsunami debris on the U.S. West Coast until 2013, residents have already seen highly buoyant items that have been pushed along more swiftly by the wind.

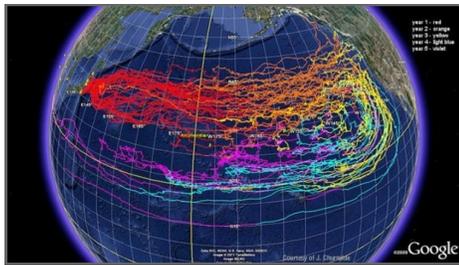
Some items found and confirmed to be tsunami debris include: boats and other vessels, buoys, sports balls, a motorcycle, a floating dock, a large tank, and a considerable amount of foam. Other buoyant tsunami debris that could potentially wash up includes: lumber, fishing nets, plastics, household items, and chemical or oil drums.

The arrival of tsunami debris has many residents and officials concerned. National, state, and local agencies have only a vague estimate of what to expect, and are not yet able to establish a detailed plan for responding to tsunami debris, though it is an issue that is being addressed. Response must be a coordinated effort as different types of debris will require specific agencies to respond, and debris will likely continue to come in across numerous jurisdictions. Considerations will also need to be made for collection and disposal of the debris, a task that could require funds and manpower. Governor Gregoire recently called for federal

aid, though she did stress that much of the clean up will be left to local volunteers. Coastal residents and visitors are encouraged to collect litter and typical marine debris items that do not appear hazardous, recycling as much as possible and depositing all other material into the appropriate trash receptacles.

Here in Pacific County, the Grassroots Garbage Gang has already begun organizing extensive efforts to clear local beaches. Many residents have also been working independently to gather and dispose of foam and other small items that have been washing ashore. Large garbage containers have been made available on the Oysterville, Ocean Park, Bolstad, and Sid Snyder beach approaches.

According to Grassroots Garbage Gang volunteer Shelly Pollock, "We have some exceptional people, working without pay" who have devoted many hours to keeping the peninsula beaches clear of debris. A standout among the large volunteer cadre is Russ Lewis, who Pollock says has "dedicated his days not only to helping evaluate how much we have to deal with, but to actually removing the debris, which by far is the most



This NOAA map shows initial projections for the path of tsunami debris across the Pacific Ocean. The areas near the US West Coast are colored orange and yellow to indicate that the debris would begin arriving two and three years after the tsunami.



An estimated 5 million tons of disaster debris was washed out into the ocean after the March 11, 2011 Japanese earthquake and tsunami. 70% of the debris that washed out sank just offshore. 1.5 million tons have continued to drift across the Pacific Ocean toward the US West Coast.

AP Photo

important aspect of all this." Russ has been collecting debris, "every chunk, large or small that I can find," from the northwest corner of Surfside continuing north 3.1 miles to where the Willapa National Wildlife Refuge (WNWR) begins. He has coordinated with WNWR staff to remove what he describes as "plenty of visible chunks behind the Snowy Plover nesting signs," in an area cordoned off for the delicate species. Russ has also coordinated removal efforts between four Surfside residents who otherwise enjoy frequent walks along the beach. He provides collection bags, explaining "what they need to collect and why." The residents leave their full bags along the beach for Russ to pick up daily. *Continued on Page 3*



TOP LEFT: Soccer Ball- Found on Middleton Island, Alaska in April and returned to its owner in Japan. Reuters Photo

TOP RIGHT: 20' Fishing Boat- found on Benson Beach, Ilwaco in June.

BOTTOM LEFT: 66' x 19' x 7' Dock- Washed onto Agate Beach, Oregon in June. 50 confirmed species of native Japanese marine life found attached. AP Photo

BOTTOM RIGHT: Harley Davidson Motorcycle- Found on Graham Island, British Columbia in April. AP Photo

# Tsunami Debris is a Complicated Issue, continued from page 3

Because he spends a considerable amount of time patrolling the beach, Russ is becoming aware of the ecological impact of the tsunami debris: "I have noticed that much of this Styrofoam has been heavily pecked by feeding birds because when [the Styrofoam] freshly arrives it has live pelagic gooseneck barnacles attached. Seagulls especially love them and I think they are ingesting Styrofoam in doing so."



Pelagic gooseneck barnacles (non-invasive) attached to the 20' fishing boat found on Benson Beach in June.

Styrofoam is notorious for breaking up into small pieces that can choke animals and clog their digestive systems.

Other ecological threats associated with

tsunami debris include hazardous material contamination and invasive aquatic species. Response to potentially hazardous materials is fairly straight forward, if you see an item that you think may be hazardous, do not touch or attempt to move the item and call 911. The National Response Center may also be alerted (1-800-424-8802). Hazmat teams have the training and experience to comprehensively respond to contamination issues. The threat of invasive aquatic species is a bit more complicated to contain.

A team of researchers from the OSU Hatfield Marine Science Center recently identified over 50 Japanese species attached to a large dock that washed ashore on Agate Beach. The US West Coast has historically been vulnerable to invasive plant and animal species. For instance the Willapa Bay is now recovering from a widespread invasion of *Spartina* grass that was brought from the Atlantic seaboard through the oyster industry in 1894. *Spartina* has become a threat to bird, fish, and bivalve habitats, replacing native plant species and spreading prolifically as it chokes the estuary with its densely matted root system. After many years and millions of dol-



Russ Lewis has coordinated efforts on the north end of the peninsula to track and remove tsunami debris. Here he poses with an interesting piece of tsunami debris that he recently recovered.

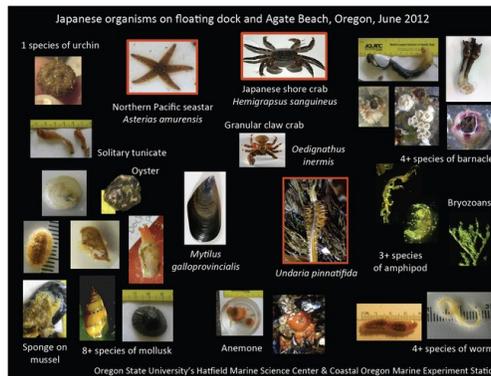
Grassroots Garbage Gang Photo

lars, the *Spartina* has abated, though it will be a continual process to keep it in check. According to the OSU Hatfield Marine Science Center, "tsunami debris is an undocumented, if not new threat for invasives." Japanese species with the highest likelihood of colonizing the US West Coast are the Northern Pacific seastar (*Asterias amurensis*), the Japanese shore crab (*Hemigrapsus sanguineus*), and *Undaria pinnatifida*, a type of brown

isms. Items like docks, buoys, barges, and boats that were in the water prior to the tsunami are the most likely to have invasive species attached. Large debris items that are properly reported will be inspected by the Washington Department of Fish and Wildlife. Citizens who find small items with organisms attached should dispose of them in a garbage container. If this is not possible, items should be moved above the waterline on dry land so that the potentially invasive organisms will not return to the ocean.

As Japan's wreckage drifts across the Pacific to our shores, it is essential to understand that dealing with the debris will be a complicated matter. Because the disaster which created the debris was such complex mayhem, and because the Pacific Ocean is so vast and erratic, it is difficult to predict what will eventually come ashore. Whatever occurs, residents who plan to assist in cleanup efforts need to understand how to respond to the different types of debris they may encounter.

Debris removal will be a strenuous effort, a treasure hunt, and occasionally even an opportunity to reconnect



Northern Pacific seastar  
*Asterias amurensis*



*Undaria pinnatifida*



Japanese shore crab  
*Hemigrapsus sanguineus*

These marine species are the most likely to colonize on the US West Coast after drifting across the Pacific Ocean attached to debris.

The above poster is part of a report done by the OSU Hatfield Marine Science Center on the dock that washed ashore in Agate Beach, OR in June. It details some of the more notable species found on the dock. The full report can be found at <http://blogs.oregonstate.edu/floatingdock/>.

algae.

Marine debris often has living organisms attached to it. The organisms are usually native to the open ocean and are not a threat to the local ecosystem. Nevertheless some tsunami debris may come with invasive organ-

Japanese survivors with artifacts from their pre-disaster lives. Pacific County residents have always been diligent stewards of the area's natural resources, and will likely continue in their efforts as the debris rolls in.



# The Citizen's Guide to Debris Removal

## Litter and Typical Marine Debris

Remove the items and recycle as much as possible! Large bins are provided on the Oysterville, Ocean Park, Bolstad, and Sid Snyder beach approaches.

## Potentially Hazardous Materials

Do not touch or attempt to move items. Call 911 to report. You may also contact the National Response Center at 1-800-424-8802.

## Derelict Vessels and Other Large Debris

Do not touch or attempt to move items. Call 911 to report. If the object presents a marine navigation hazard contact the US Coast Guard Pacific Area Command at 510-437-3701.

## Mementos and Possessions



Reuters Photo

If the item can potentially be traced back to a person or a group because it has unique identifiers or markings, or if the item has personal or monetary value, report to DisasterDebris@noaa.gov. NOAA has been working with the local Japanese Consulate to return the items.

## Invasive Species

Marine debris often has living organisms attached to it. The organisms are usually native to the open ocean and are not a threat to the local ecosystem. Nevertheless, some tsunami debris may come with invasive organisms. Items like docks, buoys, barges, and boats that were in the water prior to the tsunami are most likely to have invasive species attached. Large debris items that are properly reported will be inspected by the Washington Department of Fish and Wildlife. Citizens who find small items with organisms attached should dispose of them in a garbage container. If this is not possible, items should be moved above the waterline on dry land so that the potentially invasive organisms will not return to the ocean.

## Human Remains

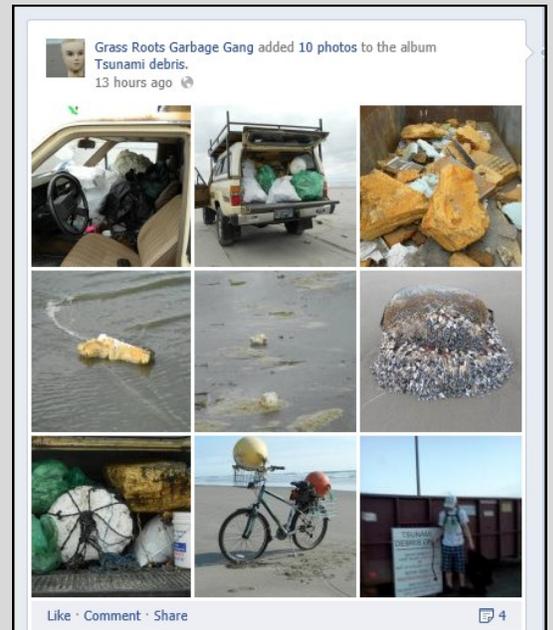
It's unlikely you will find human remains from the Japanese tsunami. If you see human remains anywhere, call 911 and do not touch or attempt to move.

## Unknown Items

If you don't know what it is, don't touch it. Call 911 or the National Response Center (1-800-424-8802) if you feel the item may be hazardous.



Tsunami debris bins are located at the Oysterville, Ocean Park, Bolstad, and Sid Snyder approaches.



The Grassroots Garbage Gang is spearheading local volunteer efforts to remove debris. Check out their Facebook page where you can share photos of your finds and stay up to date on organized beach clean ups and odd discoveries!

[www.facebook.com/GrassRootsGarbageGang](http://www.facebook.com/GrassRootsGarbageGang)  
[www.ourbeach.org](http://www.ourbeach.org)

## 1-855-WACOAST

This Washington State hotline has been established as an additional resource for debris reporting. Follow the prompts to report hazardous materials, and marine obstructions.

NOAA Marine Debris Program: <http://marinedebris.noaa.gov>

Debris Reporting: If you find tsunami debris, let NOAA know! Email them at: DisasterDebris@noaa.gov

National Response Center (HAZMAT): 1-800-424-8802

US Coast Guard Pacific Area Command (Marine Obstructions): 510-437-3701

# More Talk of Tsunamis

On June 7th, 36 residents attended a Let's Talk Tsunamis presentation at the Peninsula Senior Center in Ocean Park. On June 11th, five residents attended an identical presentation at the Chinook School Gymnasium. Both events were put on by PCEMA at the request of concerned citizens. Frank Wolfe was the presenter on both occasions. Frank participated in a Tsunami Train-the-Trainer course, which was held in October 2011, and is one of PCEMA's Let's Talk Tsunamis instructors as well as a RACES volunteer. A PCEMA staff member was also in attendance, helping to answer questions from the audience on subjects including evacuation maps, AHAB sirens, alert protocols, and historic tsunamis. There were lively discussions at the Ocean Park event as residents grappled with some of the newly-learned realities of local tsunamis and on-foot evacuation. Though the Chinook crowd was a bit smaller, questions and discussion lasted some time after the presentation as residents shared their personal

and community evacuation protocols and preparedness tips. Let's Talk Tsunamis is a public education series created and coordinated by PCEMA. Presentations can be arranged upon request from interested groups, businesses, and citizens. To schedule a presentation, contact Natasha Nesbitt at 360-642/875-9409 or [nnesbitt@co.pacific.wa.us](mailto:nnesbitt@co.pacific.wa.us).



# Get Prepared Pacific County!



Senior care providers met at the Alder House in South Bend to attend a PCEMA Get Prepared Pacific County Presentation on June 6th. CERT Volunteer Mary Atherton presented, sharing many personal experiences as a preparedness aficionado. The presentation was tailored to address preparedness specific to those with limited mobility and special needs. The presentation was coordinated at the request of Pastor Laurie Johnson who is involved personally and professionally in elder care issues.

Get Prepared Pacific County is a public education series created and coordinated by PCEMA. Presentations can be arranged upon request from interested groups, businesses, and citizens. For a copy of the curriculum, contact Natasha Nesbitt at 360-642/875-9409 or [nnesbitt@co.pacific.wa.us](mailto:nnesbitt@co.pacific.wa.us).

# PCEMA Americorps Opportunity

The service term is September 1st, 2012 - July 15th, 2013, with a \$1,125 monthly stipend and a \$5,550 Education Award available at the end of service. The position comes with a health plan. Participants must be age 18-25. **Those interested should contact Denise Rowlett: 360-642/875-9338 or [drowlett@co.pacific.wa.us](mailto:drowlett@co.pacific.wa.us)**

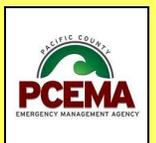
Americorps program members work to meet critical community needs in education, public safety, health, and the environment. The PCEMA Americorps member will engage in direct service activities such as volunteer recruitment, CERT program management, preparedness initiatives, public education, community presentations, event outreach, and the creation of the Preparedness Post newsletter.

This program offers many opportunities for training in emergency management, and will provide experience in writing, publication and design, Microsoft Office, public speaking, program management, advertisement, event coordination, & planning.



*Get Involved!*

Interested in applying? Contact:  
PCEMA Deputy Director, Denise Rowlett  
360-642/875-9338 or [drowlett@co.pacific.wa.us](mailto:drowlett@co.pacific.wa.us)



# Upcoming CERT Training

PCEMA is offering a free 10-week Community Emergency Response Team (CERT) training. The courses began on June 19th and will take place from 6:00 p.m. to 9:00 p.m. every Tuesday until August 21st at the South Pacific County Administration Facility Meeting Room A.

Participants will not be required to attend all courses, though complete attendance is required to graduate from the program. Courses are a combination of hands-on tutorial, presentation with lecture, and group activities with discussion. All course materials will be provided. Accommodations will gladly be made for participants with special needs. Participants under the age of 18 will need parent/guardian permission to attend. Pre-registration is encouraged.

The CERT Program teaches disaster preparedness for local hazards and trains participants in basic disaster response skills. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following a disaster.

## July's Trainings:

- 10th—Disaster Triage
- 17th—Disaster Medical
- 24th—Victim Search
- 31st—Rescue Operations

Interested in attending a CERT Course?  
Contact:

**Natasha Nesbitt (PCEMA)**  
nnesbitt@co.pacific.wa.us  
(360) 875/642- 9409

# CERT Club Plans to Raise Funds

The South Pacific County CERT Club met on July 6th at the Fire District 1 Meeting Room in Ocean Park.

After a two month review, the club passed a set of bylaws authored by club secretary, Mary Atherton. Mary also presented information on the process of applying for a tax ID number and bank account, establishing the group as a non-profit by filing articles of incorporation with the state, and registering as a charitable organization. The group also began review of a five year plan for the club which should be approved at the next meeting.

RACES volunteer Frank Wolfe was in attendance to discuss disaster communications. He brought examples of handheld and vehicle radios, explained what may work best for the group, and discussed how to study for the radio technician test that is required to receive a radio operator license. The club plans to include communication into disaster planning and will be working closely with RACES to establish an effective system.

Meetings are the first Friday of the month, beginning at 7p.m. **The next meeting will be August 3rd at the Pacific County Fire District 1 Meeting Room in Seaview at 7:00 p.m.** Those interested in becoming a trained CERT member are encouraged to attend!

## South County CERT Club Officers

**President:** David Sargeant  
**Vice President:** Ann Thoreson  
**Secretary:** Mary Atherton  
**Treasurer:** Carolyn Shealy  
**PCEMA Liaison:** Natasha Nesbitt  
**RACES Liaison:** Ed Archer  
**Fire District #1 Liaison:** Connie Biggs  
**Ilwaco Fire Liaison:** Desmond Doss Jr.  
**Outreach Coordinator:** Ann Thoreson  
**Training Coordinator:** Glenn Ripley  
**Special Events Coordinator:** Sigrine Vally  
**Fundraising Committee:** John Williams  
Debby Moggio  
**Public Ed Committee:** Sigrine Vally  
Debby Moggio  
**Webpage Design:** Mary Atherton

Check out the South County CERT Webpage!  
<http://pacificcountycert.weebly.com/index.html>



Community Emergency Response Team (CERT) training is a program designed to prepare residents to help themselves, their families, and neighbors, in the event of a disaster. Training covers basic skills for use in disasters where emergency services are not available.

# Kayla Passolt's Senior Project Helps the South Bend School District Prepare

Kayla Passolt, a 2012 graduate of South Bend High School chose to put together 50 emergency kits for the South Bend School District as her senior project. Two types of kits were created for individual classrooms and overall administration. Both kits contain the standard emergency items. The classroom kit contains rosters of students for any given point in the day. The administration kits contain full rosters of all school district students from pre-Kindergarten to 12th grade.

The kits were funded through the school district in response to a tsunami drill where Kayla said "they realized [the drill] was not practical, we got all the way up there [to the hilltop evacuation site] and had no supplies."

Kayla chose this project because she will be studying Nursing on Pullman's WSU campus in the fall.



# Top Score for Pacific County ARES/RACES on Simulated Emergency Test!

District 8	KA1ZQX	18
<b>Northwestern Division</b>		
<b>Western Washington</b>		<b>907</b>
Pacific Co	N7CVW	<b>423</b>
Dist M, Medical Svcs	N7LSL	270
Grays Harbor Co	N7UJK	214
<b>Pacific Division</b>		
<b>Nevada</b>		<b>134</b>

The Simulated Emergency Test (SET) is a yearly exercise that is scored and demonstrates that amateur radio operators and counties are prepared to provide an effective and efficient response to emergencies. Pacific County ARES/RACES participated in this exercise in October 2011 and the scores were just released this month: Pacific County ARES/RACES scored the highest in the North West Division and was 19th across the entire nation out of 304 participating teams. This is a phenomenal success for rural Pacific County. Most of the top national scores came from large metropolitan areas like the Sacramento Valley, New York City, and Cleveland. Pacific County ARES/RACES volunteers are a diverse group of talented, professional, and community-minded individuals who help make this area one notch above the rest!

# PCEMA Volunteers Honored in June

PCEMA honored volunteers at an appreciation dinner on June 12th in Seaview. Volunteers were recognized for their continued efforts to assist emergency management. Radio Amateur Civil Emergency Service (RACES) volunteers serve as spotters during the All Hazard Alert Broadcast siren system monthly tests, support NOAA weather radio programming, and work on communications equipment in the Pacific County Emergency Operations Center. There is also a new cadre of volunteers who have been assisting PCEMA in public education efforts by presenting Let's Talk Tsunamis and Get Prepared Pacific County presentations. Several volunteers are also involved in Community Emergency Response Team training and Map Your Neighborhood programs.



# The Cascadia Subduction Zone

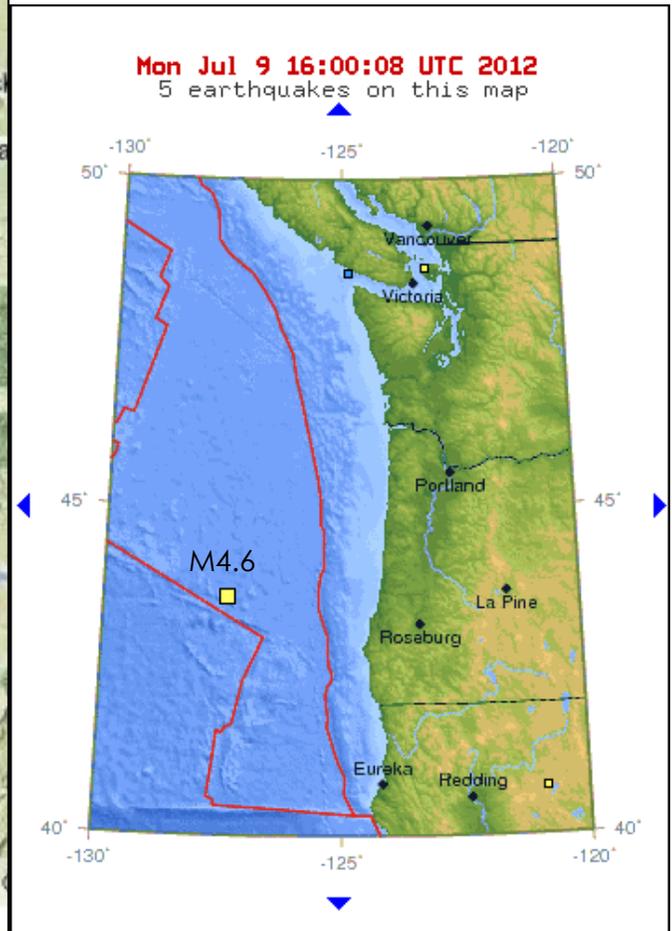
Though large earthquakes are not a common occurrence in the Pacific Northwest, small quakes happen daily. The Cascadia Subduction Zone is seismically active with a continual stream of low magnitude rumblings. Though these quakes are often only detected by special equipment and are not typically felt, it is important to understand that the plates beneath us are moving and there is potential for a large quake to occur. The maps below show the seismic activity that occurred between June 26 and July 10.



**Stay up to date on seismic activity in the Pacific Northwest by checking out these useful websites:**

Pacific Northwest Seismic Network  
<http://www.pnsn.org/earthquakes/recent>

US Geological Survey  
<http://earthquake.usgs.gov/earthquakes/recenteqsww/>



Left: This map is from the Pacific Northwest Seismic Network. The largest event on this map is a magnitude 2.7. Right: This map is from the US Geological Survey. The event depicted by a yellow square off the Oregon coast was a magnitude 4.6. It occurred offshore near where the Juan de Fuca plate converges with the Pacific Plate.

# Prepare in July!

Prepare in a Year information & materials are available online. To print information, watch videos, and learn more go to:



[http://www.emd.wa.gov/preparedness/prepare\\_year.shtml](http://www.emd.wa.gov/preparedness/prepare_year.shtml)

*Get Prepared!*

For each month in 2012, PCEMA is asking individuals, families, and groups to spend one hour engaging in preparedness activities. July's activity is Under the Bed Items.

This activity will prepare you to respond immediately after a disaster with the proper personal protective equipment. When a disaster strikes, you may become disoriented, especially if you are sleeping at the time that it occurs. Practiced procedures are easier to implement, even if you become disoriented. This month you'll establish an under the bed kit to prepare you to respond, even at 3 a.m.

## Sturdy Shoes:

A common injury after earthquakes is lacerated feet. Most people don't sleep with shoes on. Earthquakes can result in broken glass and other sharp debris on the floor. Keep a pair of sturdy shoes in an easily accessible spot under your bed. Romeos are a great choice because they can be quickly slipped on.

## Work Gloves:

Leather is preferred. These gloves will protect your hands from sharp debris.

## Hardhat:

To protect your head from falling debris such as chimney bricks or downed trees and branches.

## Flashlight:

A flashlight will be essential if the event occurs at night, especially if your home has been damaged.

## Small First Aid Kit:

A small kit can be carried in your

pocket, accessible wherever you go.

## Other Items:

What other items will you keep under your bed? Maybe a few power bars? Do you have dog? How about some dog booties to protect your pooch's feet from broken glass as well!



<a href="#">1. Action Plan</a>	<a href="#">2. Out of Contact</a>	<a href="#">3. Water</a>	<a href="#">4. 72-hour Comfort Kit</a>	<a href="#">5. Important Documents</a>	<a href="#">6. Extended Events</a>
<a href="#">7. Under the Bed Items</a>	<a href="#">8. Utility Safety</a>	<a href="#">9. Drop, Cover &amp; Hold</a>	<a href="#">10. Fire Safety</a>	<a href="#">11. Shelter in Place</a>	<a href="#">12. Home Hazard Hunt</a>

# Share How You Prepare

PCEMA would like to highlight the different ways Pacific County residents are preparing for disaster. What unique items do you keep in your kit? How does your kit fit in with your overall emergency plan? How long have you been preparing or what preparations do you still need to make? What are you preparing for and why? Let us know!

**Send a description and/or photo of your unique emergency kit to PCEMA and we may feature you in the Preparedness Post and on Facebook!**

Email: [nnesbitt@co.pacific.wa.us](mailto:nnesbitt@co.pacific.wa.us)  
 Postal Mail: PCEMA c/o Americorps Member  
 P.O. Box 101  
 South Bend, WA 98586

# PCEMA

Pacific County Emergency Management Agency

## UPCOMING EVENTS:

AHAB Siren Test: **First Monday of the month @ noon**

10 Week Long Beach CERT Training: **Tuesdays @ 6 p.m. Page 4**

CERT Club Meeting: **July 6th @ 6:30 p.m. Page 4**

## CONTACT INFORMATION:

### Office

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**Stephanie Fritts**  
360-875/642-9340  
sfritts@co.pacific.wa.us

**Deputy Director**  
**Denise Rowlett**  
360-875/642-9338  
drowlett@co.pacific.wa.us

**VISTA Member**  
**Natasha Nesbitt**  
360-875/642-9409  
nesbitt@co.pacific.wa.us

**Fax**  
360-875-9342

**Address**  
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**Long Beach**  
7013 Sandridge Rd.  
**Mailing**  
P.O. Box 101  
South Bend, WA 98586

### Online & Social Media

	<a href="https://twitter.com/PCEOCNews">@PCEOCNews</a> Text follow PCEOCNews to 40404 to "fast follow" on your mobile device
	<a href="http://www.facebook.com/PCEMA">http://www.facebook.com/PCEMA</a>
	<a href="http://www.pcema.blogspot.com/">http://www.pcema.blogspot.com/</a>
	<a href="http://www.co.pacific.wa.us/pcema/">http://www.co.pacific.wa.us/pcema/</a>

To join PCEMA's Weather Warning List email Denise Rowlett:  
**drowlett@co.pacific.wa.us**




Sheriff's Office on Twitter: @PCSOWA  
On facebook:  
[www.facebook.com/PCSOWA](http://www.facebook.com/PCSOWA)

*Interested in  
Volunteering?*

**CONTACT:**  
**PCEMA AMERICORPS VISTA**  
**NATASHA NESBITT**  
nesbitt@co.pacific.wa.us  
(360) 875/642-9409



*get involved!*

Volunteers don't just do the work, they make it work.

-Carole Pettit

