





#### Phase II 2010-2011

Report Prepared by Deb Sterling deb@oepo.biz

## Tsunami Outreach Oregon Phase II (2010-2011) Executive Summary

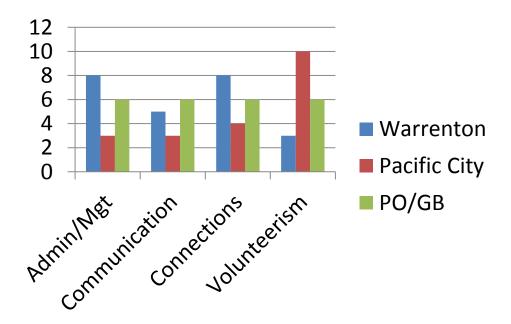
This report is a brief summary of Phase II project highlights, lessons learned and recommendations for the future. Most project objectives were met in the three coastal communities: Warrenton/Astoria, Pacific City/Neskowin, Port Orford/Gold Beach. Each community had successful events and made major progress in tsunami outreach and education.



#### SUSTAINABILITY

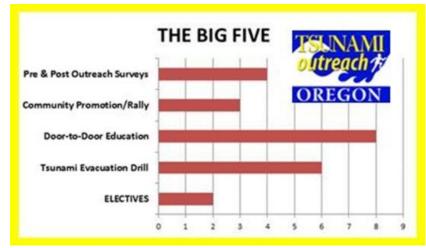
Local Community Organizers were hired to implement the program activities and build a sustainable, grassroots volunteer-based organization that would continue a tsunami outreach program indefinitely. Clearly, ensuring sustainability is a big challenge. The most successful Community Organizers have a good balance of skills, abilities and community contacts.

The chart below reflects my opinion of the strengths and weakness of the three Phase II Community Organizers. It's unlikely a coincidence that Port Orford/Gold Beach had the CO with the most balance skill set...and created the program most likely to sustain itself. (Addition details available upon request.)





Oregon Emergency Management's Althea Rizzo (shown left) was an instructor at the 2-day **Community Organizer (CO) Training Workshop** held in Florence, Oregon (March 22-23, 2010) Other instructors were James Roddey, George Priest, Rob Witter, Deb Sterling, Tyree Wilde, Ryan Sandler and the four CO's from Phase I. Patrick Corcoran from OSU/SeaGrant was unable to attend this year, but, is always invited . Patrick was a major contributor to the Phase I and III CO training workshops.



"The Big Five" refers to required components of the project. Surveys, Community Promotion/Rally, Door-to-Door Education, Tsunami Evacuation Drill and Electives (schools, business, etc.)



Promotion of the National Weather Service "TsunamiReady" program is another required component of the project. During Phase II, Clatsop County met all requirements and received the "TsunamiReady" designation. Gold Beach and Port Orford should be "TR" soon.



George Priest (above) and Rizzo represent Oregon on the National Tsunami Hazard and Mitigation Program (NTHMP) board. Priest has been a pioneer and tireless champion of tsunami outreach and education for nearly 2 decades.

NOAA All-Weather Radios are always recommended as a useful warning device for DISTANT tsunami alerts and hazardous weather conditions. Warrenton conducted two NOAA Radio Workshops and 40 people attended and purchased radios. Successful workshops were also conducted in Port Orford, Gold Beach and Neskowin.



# PRE & POST OUTREACH SURVEYS

Port Orford /Gold Beach Improvement was consistent across the board!	PO +	GB +
A tsunami is a SERIES OF WAVES.	19%	8%
First sign of a LOCAL tsunami is GROUND SHAKING.	40%	29%
Number of people who knew if they live in the inundation zone.	50%	100%
WALK TO HIGH GROUND when the shaking stops.	20%	33%
Time to respond to a DISTANT tsunami?	33%	31%

Pre-Outreach and Post-Outreach surveys were conducted to help measure the effectiveness of the outreach efforts in each community cluster. Surveys were conducted via face-to-face interview, phone, events and "drop —offs" at locations like libraries, schools and businesses.

Port Orford and Gold Beach surveys show the most dramatic improvement.



Below is a sample survey.

Tsunami Outreach Oregon						07/21/1
Pre-Outreach and Post-Outreach Survey Results			Survey Dates: N	ov-Dec 2010 (Pre-	) & Jun-Jul 20	11 (Post-)
			Survey Method(s): In-person interviews and drop-offs			
Community Organizer: Patrick Wingard			Number of Surveys 188			
				•		
Question			Answer	s		
	One 1g wave	Series of waves	Something else			
1. What is a tsunami? Pre-	59	116	13			
Post-	30	151	7			
Pct (%) Chg	-15.4%	18.6%	-3.2%			
Comment:	nment: Survey results demonstrate an increased awareness of tsunamis in the community.					
	Very high tide	Undersea quake	Something else			
2. What causes a tsunami? Pre-	3	179	6			
Post-	4	178	6			
Pct (%) Chg	0.5%	-0.5%	0.0%			
Comment:	Vast majority of co	nmunity understan	ds what causes a tsu	nami.		
	Ground shakes	Siren blasts	Emerg announce			
3. First sign of local tsunami? Pre-	104	54	30			
Post-	131	45	12			
Pct (%) Chg	14.4%	4.8%	-9.6%			
Comment:	t: Significant increase in understanding that ground shaking represents the first sign of a local tsunami.					nami.
	Ground shakes	Storm& rain	Siren blasts	Emerg announce		
4. How to know of a distant tsunami? Pre-	- 6	11	43	128		
Post-		0	48	118		
Pct (%) Chg		-5.9%	2.7%	-5.3%		
Comment:	ere. More work need	ed on distant tsunan	nieđuction.			
	Yes	No	Don't know			
5. Home located in inundation zone? Pre-		70	37			
Post-		85	22			
Pct (%) Chg		8.0%	-8.0%			
Comment:	Increase in the per	centage of people k	nowing if their home	is located in or out o	fan inundation	zone.

	Drive to high grd	Walk to high grd	Call 911	Turn on tv, radio		
What to do once ground stops shaking?	Pre- 63	92	4	29		
P	ost- 54	96	9	29		
Pct (%)	-	2.1%	2.7%	0.0%		
Comme	nts: Slight increase in					
	Some responden	ts assumed they wou	ld already be on high	ı ground, thus, tumi	ng to the media f	or info.
	10-30 mins	1-2 hours	4+ hours			
	Pre- 164	22	2			
	ost- 150	29	9			
Pct (%)		3.7%	3.7%			
Comm	ent: A decrease in un	derstanding demonst	rated as to the correc	t amount of time to	respond to a loca	al tsunami.
	40.00		4:4			
	10-30 mins	1-2hours	4+ hours			
	Pre- 29	83	76			
	ost- 23	60	105			
Pct (%)	-	-12.2%	15.4%			
Comm	ent: An increase in ur	nders tanding demons	trated as to the corre	ect amt. of time to res	pond to a distan	t tsunam.
	A 600 5 - 1 - 1 - 1	1 heafter towns	Official "all clear"		+	
When is it safe to return to low around?	After first wave	1 hrafter tsunami 8	Official "all clear"			
		-				
	ost- 22 Cha 8.0%	0.5%	157 -8.5%			
Pct (%) Comm		puzzling. Perhaps the			at 1a a c a	
Collin	eiit. These lesuits ale	puzzang, remaps un	e 5/11/11 GISTAIN USUI	iattii nas nag attelle	ct nere.	
	No	Full-time res	Part-time res	Workat coast	Own business	Other
). Live and/or work at the coast?	Pre- 8	171	9	59	6	2
	ost- 4	179	5	55	7	2
Pct (%)		43%	-2.1%	-2.1%	0.5%	0.0%
Comm	-	o replicate, as much as				
5011111	Cit. Calc was taken to	Topicato, as macma.	practicable, the sen	logiapinos or uno pr	T post-icapo	15015.
	Yes	No				
. Household tsunami emergency plan?	Pre- 76	112				
2 11	ost- 112	76			+	
Pct (%)		-19.1%				
	ent: A significant inc		re ofhouseholds hav	ing a tsunamiemerg	ency plan.	
			1	I	,, <sub> </sub>	
	Yes	No				
. Children in school?	Pre- 98	90				
	ost- 107	81				
Pct (%)	Cha 4.8%	4.8%				
Comm		outreach respondent	s were Warrenton Hi	gh School students	80 of the 188 po	st-outreaci
		WHS students. All s			. co co ano rec po	
	•					
	Yes	No	Does not apply			
a. If yes, aware of school's emergency plan?	re- 65	33	90			
	ost- 87	20	81			
Pct (%)	Chg 11.7%	-6.9%	-4.8%			
	ent: An increased uno	derstanding of school	l emergency plans is	demonstrated here.		
		T				
	7.4	Police station	Fire station	City Hall	City website	Other
	Library	I Olice Station				
. Where to get more tsunami information?	re- 42	21	33	16	52	24
-					52 30	24 27

#### Note:

The pre-outreach surveys were conducted in November/December, 2010 and the post-outreach surveys were conducted in June/July 2011. The major quake and tsunami in Japan occurred on March 11, 2011 and helped to raise awareness.



# Rallies Promotion Media

#### **GETTING THE WORD OUT**

#### Japan's crisis WILL happen here!!!!



- Radio Interviews
- Posters
- Print Ads

**TV Coverage** 

Flyers



Local media was eager to cover T.O.O. news. Port Orford /Gold Beach was the first to purchase print advertising to promote community rallies – with excellent results. Evacuation drills received the most free news coverage.



April 26 - Warrenton Community Center, 6 - 8 PM

April 27 - Astoria Liberty Theater, 6 - 8 PM let state and local emergency perparedness experts. Get in

Meet state and local emergency preparedness experts. Get in we the free raffle of emergency kits, treather radios and other goodies. Learn about how to get you family ready for disasters fremember the wind starn!) and see why elephants may make the best tsunami tourning system ever!

#### FREE RAFFLE & MUNCHIES!

Spensored by Clatsop County Emerges Services, the Cities of Warrentsa and Astoria, Oregon Red Cross, Oregon Emergency Management, and Tosnami Outreach Oregon.





ou NEED to know what to do - N

COMMUNITY VOLUNTEER MEETINGS Survival Tools, Plans and More

MARCH 24 7PM NESKOWIN FIRE STATION 48000 Hwy 101 S

MARCH 31 7PM
PACIFIC CITY FIRE STATION
35105 Brooten Rd.

TSUNAMI RALLY MAY 3 7:00PM (IWANDA COMMUNITY CENTER Special Guest Speaker James Roddey



JAMES RODDEY (pictured above) - Earth Sciences Information Officer at Oregon Department of Geology. James, aka The Prophet of Doom's a popular presenter specializing in exciting and informative multiripact their area and trains them in basic disast seponse skills, such as fire safety, light searnd rescue, team organization, and disast sedical operations. <u>MUST PRE-REGISTER</u>

TSUNAMI
EVACUATION DRILL
MAY 17
Pacific City/Neskowin
(Time to be appropried)

Neil Marquis: 541-270-1147 nmarquis@hotmail.com or Chief Kris Weiland 503-392-3313 kweiland@nrfod.com





# Rallies Promotion Media



#### **COMMUNITY EVENTS**



Displays used during safety fairs, rallies and out-door events provided by Jim Kusz.







Chief Kris Weiland and the Red Cross initiated a community emergency preparedness program in 2009. T.O.O. built upon the existing foundation and expanded focus on tsunami outreach and education. Chief Weiland collaborated often with Phase I Community Organizer, Jim Kusz, to "get the word out." Captain Kusz is a PIO and Safety Officer with the North Lincoln Fire and Rescue District.

Pacific City / Neskowin benefited greatly from strong strategic alliances with valuable county assets.

Tillamook County **Emergency** Manager, Gordon McCraw is a big supporter of T.O.O. and has been instrumental in the success of the inception. project since it's **Nehalem Bay and Rockaway Beach** (Phase I), Pacific City/Neskowin (Phase II) and he is currently coordinating efforts Tillamook Bay area (Phase III).





# Rallies Promotion Media



#### **COMMUNITY RALLIES**

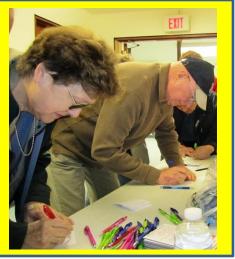
STEP #1
Pack the House!

### STEP #2 Feed Them!











#### **VOLUNTEERS ARE THE KEY**

The rally brings many citizens together for a multi-media presentation, raffle prizes, etc. But remember, the true purpose of the rally is to INFORM PEOPLE and RECRUIT NEW VOLUNTEERS.

What sets T.O.O. apart from other projects is the focus on sustainability via a grassroots-based organization of volunteers. To this end, a successful rally not only educates attendees about the threat of tsunamis on the Oregon coast and coaches them on how to prepare...it connects people to local community resources and helps them find their own volunteer niche.

Warrenton, Port Orford, Gold Beach and Pacific City all had "standing room only" crowds at their rallies. Recruiting volunteers relies on having dedicated members of CERT, Red Cross and Ham Radio clubs at tables talking to folks after the presentation about volunteer opportunities. It is recommended that communities that don't have such volunteer assets in place should reach out to neighboring communities that can provide representatives to promote and recruit volunteers.

#### Door-to-Door





Door-to-Door outreach is one of the most effective forms of outreach. It's best to have local volunteers visit their neighbors, however, not all communities are able to do this. In many cases, local CERT (Community Emergency Response Team) volunteers conduct the door-to-door outreach because they have distinguishing clothing and hats, volunteer identification from their sponsoring fire department and are covered by municipal insurance. Warrenton engaged the CERT volunteers from rural Elsie-Vinemaple Fire District (shown below) to conduct the majority of door-to-door outreach in Warrenton and Hammond (1,800 homes and businesses covered in the inundation zone).

Note: Use caution when leaving hangers on doors; unoccupied homes do not want to be identified.





#### **Evacuation Drills**









PLANNING AND COMMUNICATION The two essential components of a successful drill.



Ham Radio volunteers were an integral part of every evacuation drill.



Drill participants walked to higher ground. Valuable info was gathered at assembly sites. The top complaint from walkers in Pacific City was "Where are all the evacuation signs?" After the drill, volunteers erected dozens of evacuation signs in the Nestucca Fire & Rescue area.





Pacific City/Neskowin had a tremendous showing of support and participation from a large range of organizations. Red Cross, Coast Guard, County Commissioners, Ham Radio, County Agencies, Fire and Rescue, Law Enforcement, Civil Air Patrol. They also coordinated with OEM's Tsunami Road show so the vast crowd was able to hear Yumei Wang from DOGAMI talk about Vertical Evacuation prior to the after action meeting.

#### **Evacuation Drills**





Port Orford/Gold Beach: Did a "table-top" exercise to prepare for their drill. (A simulation of the drill conducted at a conference table at least a week before the drill date.) Both communities had lots of support from local fire and police. Their drill simulated a LOCAL event (some communities choose to use a distant scenario, though T.O.O. recommends a local scenario). Curry County GIS and CO, Dave Lacey, created safety site maps for both PO and GB that were used during the drill. Gold Beach assigned 9 crossing guards for Highway 101, but found that 5 would have been sufficient. (The need for crossing guards varies from community to community.)



U.S. AIR FORCE

"Guardians From Above" (www.fogfa.org) were invited to participate in the Pacific City/Neskowin and Gold Beach/Port Orford drills. High-powered speakers deliver prerecorded and "live" evacuation messages. Volunteers praised the quality of the messages. This system would be most helpful in evacuating beaches and estuaries during a DISTANT tsunami event or other coastal emergencies.



Schools, City Staff and Fort Stevens State Park employees and visitors – along with about 100 residents – participated in the **Warrenton** drill. Excellent signage and colorfully garbed volunteers created lots of awareness and discussion about tsunami preparedness with passers-by. No drill was conducted in Astoria.



Prior to every drill, the leader (usually the fire chief) provides a briefing for all volunteers and staff.

After the drill, participants assemble for a de-briefing or "Hot Wash" to discuss what worked and what could be improved.









Tsunami Assemblies in Neahkanie, Warrenton, Gold Beach and Port Orford.

Gold Beach and Port Orford established a special advisory group focused on K-12 outreach. A high school intern wrote the first draft of the school outreach program as part of her senior project. The CO did classroom presentations with the intern at all grade levels. One Gold Beach school received back packs donated by a local insurance company and are working toward building "go-kits" for each student.



(L-R Jerry Rilette, Neahkanie HS Principal, James Roddey, Linda Kozlowski)

Work with schools that started during Phase I in Tillamook County continued in Phase II. Tsunami champion, Linda Kozlowski, had been working with the Neahkanie School District for several years in an establish attempt to tsunami outreach programs at the high school and middle school. Kozlowski credits Roddey and DOGAMI with adding the needed ingredients for a break-through with the superintendent during Phase II. Schools need ongoing contact and support - not just a one year effort. Note: Rilette and Kozlowski continue a strong collaborative relationship, which was forged during Phase I when they were both Community Organizers in Tillamook County.

#### **Electives - Misc**



# Ham Radio



Amateur Radio operators are the back-bone of emergency communication in Oregon...and around the world. During the Great Gale of 2007, all communication methods failed on the North Coast – except Ham Radio.

Volunteers purchase all of their own equipment and are bound by federal law to offer their skills and equipment free-of-charge during an emergency.

Ham Radio volunteers played a major roll in all Phase II evacuation drills and provided communication for door-to-door efforts in Warrenton, Gold Beach and Port Orford.





Ham Radio operators have close ties with local law enforcement and emergency services. Most county Emergency Operation Centers (EOC) use ARES/RACES certified Ham Radio operators to staff communications 24/7 during an emergency. This make "hams" a valuable asset to tsuanmi outreach and education. If a community does not have a CERT team already established, finding the local "ham club" should be your first step as you search for "tsunami champions" that will sustain the program. Note: There is a large over-lap between CERT and ham radio enthusiasts.

#### **Electives - Misc**

# THE BIG FIVE Pa & North Delands Burson Community American State State to the Mariette State to State State State to State State

# C.E.R.T







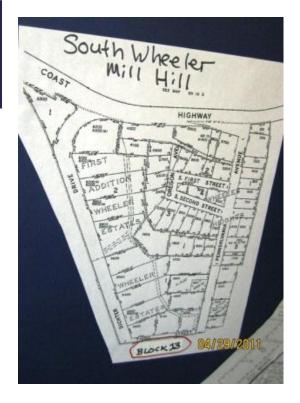
CERT and MYN programs provide an excellent foundation for a sustainable tsunami outreach program. CERT is part of the federal Citizen Corps organization and MYN was developed in Washington state. Port Orford, Gold Beach and Pacific City created CERT organizations during Phase II. Clatsop and Tillamook county volunteers received MYN training from Paula Peak (Nehalem Bay Emergency Corps volunteer).



Neskowin and Pacific City enthusiastically embraced MYN and established numerous neighborhood captains. Just a week after one training, neighbors responded to a minor emergency, which prevented an unnecessary call to the fire department. Neighbors Helping Neighbors is the key to tsunami preparedness!

MYN training sessions were conducted in Port Orford (15 attendees /7 became facilitators), Gold Beach (28 attendees /10 became facilitators) and Brookings/Harbor (62 attendees / 28 became facilitators).

Note: The Curry Co. emergency manager, Don Kendall, requested that some activities be shared with folks in the Brookings/Harbor area.



MAP YOUR NEIGHBORHOOD

#### Warrenton / Astoria



#### Community Organizer Patrick Wingard

#### **LESSONS LEARNED**

- Balance in CO skill sets is essential
- Buy-In from all stakeholders a must

Background: The Astoria fire chief submitted the original application to participate in T.O.O. – however, it was later discovered that there had not been adequate "buy in" from other City of Astoria officials. (Note: Phase III is addressing this by requiring written acknowledgment from local officials regarding participation in the program, in-kind support to be provided, etc.) During the selection of Phase II communities, it was determined that Warrenton was at much greater risk than Astoria, and that outreach efforts would be focused there as well. The core advisory team consisted of the Warrenton City Manager, Warrenton Fire and Police Chiefs and the Astoria Fire Chief. They selected the community organizer (no advertising was done) because of his past involvement as Warrenton City Planner and current free-lance status.

## This excerpt from Wingard's final report reflects the influence his profession made on his approach of the tsunami outreach project.

"In developing the tsunami outreach program for Warrenton/Astoria, program elements were carefully designed and selected to incorporate the distinct land, water and demographic characteristics of each community. Warrenton is a large sprawling city with a population of 5000 residents spread out over a 20 square mile land area. Much of this land is flat, protected by dikes, and lies within the tsunami inundation Ft. Stevens State Park containing the state's largest campground is also located within the City of Warrenton. Conversely, Astoria is a historic compact city with a population of 10,000 residents. Astoria is known for its steep terrain (it is often called "little San Francisco") and has a history of landslides. Only small portions of Astoria lie within the tsunami inundation zone."



Wingard's professional experience in the North Coast provided strong relationships with city and county management. Though certainly an advantage, this proved to create some unique challenges. Discussions were "framed" from a city planner's perspective. Astoria focused on landslides. Time was spent creating maps and documents (see above) ...while volunteer recruitment took a back-seat. Note: Local officials and residents were thrilled to get these detailed evacuation route maps.

#### WARRENTON / ASTORIA

#### 2010-2011



WHAI YOU HAVE ON HAND
WHEN A DISASTER STRIKES
WILL HELP DETERMINE
YOUR COMFORT AND SAFETY
IN THE HOURS AND DAYS
FOLLOWING A DISASTER

BE PREPARED BUTLD EMERGENCY KITS FOR YOUR HOME, WORK AND CAR

Include essentials such as for water, first aid kit, necessary medication, flashlight w/ batteries, blankets, extra clothing, sturdy shoes, gloves emergency contact list, etc.

#### NEED TO EVACUATE? BUILD A GRAB AND GO-KIT

is AND GO-RIT

In a backpack, bag or container
stored under your bed, desk or
other easily accessible area,
include essentials same as
above plus sanitary & hygiene
items (toilet paper,
feminine; /mart supplies, etc.).
Travel light: Think, water
purification tablets instead of
lugging jugs of water.



KNOW HOW TO SURVIVE A TSUNAMI: IF YOU FEEL A STRONG EARTHQUAKE THAT LASTS FOR SEVERAL MINUTES

- Protect yourself during the earthquake. Duck, cover and hold on tight until the earthquake is over.
- · Move to higher ground Move to higher ground immediately. Know your surroundings! Warrenton is fairly flat but many dune ridges traverse the area. Use this map and other resources to bolster your survivability!

<u>DO NOT WAIT</u> FOR AN OFFICIAL WARNING - THE EARTHQUAKE <u>IS</u> YOUR WARNING TO GET MOVING TO HIGH GROUND!



#### DISTANT TSUNAMIS

re caused by undersea earthq ccur far away from the Orego ill not feel the ground shake







Warrenton Fire Chief **Ted Ames** 

Warrenton Fire Chief, Ted Ames, worked closely with Wingard to develop the new map (back panels of the new map are shown above).

#### CALLING ALL CERT MEMBERS





#### We invite you to put your CERT training to work



It has been just over 310 years since a magnitude 9.0 earthquake shook our coast. That's bigger than the recent Haitian and Chilean earthquakes combined

There's a strong probability that the next 'Big One' will strike within our lifetime or our children's. If this makes you nervous, good, because it's time to get real and put a plan in place that will cover earthquakes, tsunamis and other disasters.

We need your experience.

training and expertise to help develop TSUNAMI
OUTREACH PROJECTS in Warrenton and Astoria

Projects will include Evacuation Planning, "Map Your Planning, "Map Your Neighborhood," Astor School Hoe-Down, NOAA Radio Workshops, & more...
Also, we want to hear what
ideas YOU have to help make prepared!

#### **TSUNAMI OUTREACH ORIENTATION SESSIONS**

WARRENTON CITY HALL - CITY COUNCIL CHAMBERS January 12 2:00-4:00pm OR 6:00-8:00pm





#### Pacific City / Neskowin



# **Community Organizer Neil Marquis**

#### **LESSONS LEARNED**

- Balance in CO skill sets is essential
- Unexpected circumstances can derail operations



Background: Fire Chief, Kris Weiland (shown left), recognized the need for volunteer-based emergency preparedness groups when he moved from Washington to the Nestucca Valley. He collaborated with the Red Cross and began volunteer recruitment efforts nearly a year before Phase II began. Chief Weiland intended to play a more active roll in the T.O.O. program, but was unfortunately consumed with administrative details related to a fire station that burned to the ground.



#### **PACIFIC CITY / NESKOWIN**

2010-2011

Supplies and materials provided by T.O.O. are a crucial component of the program. Though each community creates their own "wish list" — standard guidelines require purchases to be directly related to tsunami outreach and education efforts.

Signage is one of the most important assets communities can purchase to help save lives.

Pacific City erected dozens of new evacuation signs...many installed by CO Marquis himself.









#### Port Orford / Gold Beach



## Community Organizer Dave Lacey

#### **LESSONS LEARNED**

- Place-based focus and creativity = success
- Local support must be nurtured and supported





Creating a unique identity for each local tsunami outreach program helps differentiate it from existing emergency preparedness efforts and contributes to the sustainability of the program.

The Port Orford/Gold Beach T.O.O. project one of the most well-rounded and successful to date. Lacey and his assistant CO, Brianna, worked well with minimal supervision, yet asked for assistance when appropriate. The lure of fresh salmon, cinnamon rolls baked on location and performances by local musicians surely contributed to the record-breaking attendance at both community rallies. Skillfully building upon local support created a strong network of champions.

Consultant, Deb Sterling, facilitated a planning meeting with both advisory committees. The focus of each meeting was to:

- Identify existing assets and potential tsunami outreach champions.
- Create enthusiasm and help the group develop a unique, sustainable, identity.
- Assign tasks and responsibilities to ensure commitment and follow-through.

#### PORT ORFORD / GOLD BEACH

2010-2011



PO/GB had great success with these display boards. They traveled to many locations during Phase II and remain a valuable asset for local champions. PO/GB Rotary clubs provided support, too!



