

Safe Water and Safe Sanitation

Why do we each need to fully understand safe water and safe sanitation procedures? The answer lies within the reasoning behind State of Oregon Emergency Managers declaring “Being earthquake ready is the highest state of readiness”. If each of us has prepared our emergency plan and stockpiled the necessary food, water and sanitation supplies, we have a much better chance of surviving until help actually arrives – in possibly a month, maybe sooner.

A Cascadia Subduction Zone earthquake magnitude 8.8, similar to the one which struck Chile in 2010 is predicted soon. How soon – we don’t really know? Dr Chris Goldfinger from Oregon State University interpreted the data he collected from offshore core samples as follows; “magnitude 8.2 (or higher) earthquakes have occurred 41 times during the past 10,000 years.” We “have already gone longer without an earthquake than 75% of the known times between earthquakes in the last 10,000 years,” “the ‘when’ is looking like it may not be that far in the future.”

A magnitude 8.8 earthquake is predicted to cause serious damage from Mendocino, CA to Vancouver, BC and from the coast to the Cascades. The most extensive damage is predicted for coastal communities where all underground infrastructures are either damaged or destroyed. That means water mains, sewer mains, storm water mains, gas lines and landline telephone service will be damaged beyond reasonable repair. Coastal communities can expect to be isolated in small island communities as landslides block all roads and more than 50% of bridges are damaged or destroyed. Electrical service is expected to be interrupted by downed power lines as trees and power poles lose their footing due to liquefaction of the soils around them. All municipalities and Special Water Districts relying on lakes, with earthen dams, for their source of drinking water, can expect to lose that source due to liquefaction failure of those dams. Anyone living downstream from one of these lakes should expect a major flooding event and prepare to move to higher ground as soon as the shaking stops. How long is the shaking expected to last? Our scientists say 5-7 minutes.

The severe shaking having stopped and the Tsunami waves having subsided will allow many to step outside and observe – “WATER, WATER EVERYWHERE, BUT NOT A DROP THAT’S SAFE TO DRINK”.

It is your responsibility to have on hand 2 weeks or more (but, not less) of water for your family and pets. No person (or pet) can live long without water. It is necessary to know where you can get water, how to make sure the water you get is safe to drink and how to safely store water ahead of time. After a disaster or event, it is too late. Ocean water and rivers with tidal influx will not be suitable sources for water to be purified. It will not be pleasant to drink from a muddy puddle because you are literally dying of thirst and have no other choice. Unpurified water will most likely contain protozoan parasites (Montezuma’s Revenge”), toxic bacteria, harmful viruses and/or poisonous chemicals. Ninety (90)% of the surface water in the United States tests positive for Giardia and Cryptosporidium. Those who plan to survive a major disaster will need to learn how to

correctly use water filters, water purifiers and/or a disinfectant to purify water. Proper sterilization procedures must be followed for all containers which will be used to store water in advance. One also, needs to learn the most energy efficient way to sterilize the utensils that are used in eating and cooking during a disaster.

Meticulous hygiene will be required to protect from infection and spreading of diseases during a disaster because one's immune system tends to be weakened. It would be prudent to make sure your vaccinations are kept up to date, specifically for Tetanus, Hepatitis A & B. Hygiene kits that are made up in advance will alleviate the worry about finding the wash cloth, creams, shampoo and other personal items needed to maintain good hygiene while living in uncomfortable conditions. Packing some comfort items will do a lot to help boost morale.

Safe Sanitation requires an understanding of the different hazards associated with animal and human waste. Some people have said, "I will just go in the forest like the animals do". Improper disposal of human feces can lead to disease outbreaks which are specific to humans. Case in point would be Haiti, where earthquake survivors experienced a Cholera epidemic traced back to human waste leaking into the river which was the drinking water source. Other epidemics, which must be protected against, are Typhoid, Dysentery and diarrhea. When you factor in 10,000 people living in the Florence area, the amount of waste build up, during a month, would make this a very unpleasant, not to mention very unhealthy place to live.

Florence residents and many in the surrounding area live over and in close proximity to the "Dunal Aquifer". As the primary source of drinking water for Florence residents, special precautions are called for to protect the "Dunal Aquifer". Everyone needs to learn how to collect and safely store their waste until the disaster is abated and safe collection, with disposal, measures are being implemented. Learning special water conserving techniques while keeping hands and body clean will make a big difference in how long your water supply lasts.

Florence has been identified as a prime retirement community and with about 86% of its residents being in that age group, makes planning for access to one's prescription medications vitally important. Case in point; When Katrina struck, some of the people in the shelters did not know what medicines they took or what they were prescribed for. They only knew the pills were blue or pink or yellow, which was of no help to the Doctor's who were trying to help. It is vital that you have your medicines, along with the written prescriptions in a kit ready to "Grab-N-Go" when disaster strikes. A 30 day supply is strongly recommended for this kit. Don't forget your pet's meds while you are preparing yours. It would be a good idea to include a list of all medications taken and what they were prescribed for. You should expect that it could take days for a shelter to be up and running. Having your own medications, vitamins, spare glasses, sunscreen, etc. will make life more pleasant.

Everyone is advised to seek out local training classes which cover the above information in greater detail. Improve Your Survive-Ability workshops are scheduled on the second

Saturday of each month at the Siuslaw Valley Fire & Rescue station, 2625 Hwy 101 N in Florence starting at 9:30am. Pre-registration, for these free workshops, is requested by calling 541-997-3212.