

IF WE GET THE BIG ONE

The 2011 Japanese earthquake/tsunami was a compelling reminder of the dangers of living around the Pacific 'ring of fire'. Off the shores of the Pacific Northwest is the Cascadia subduction zone, an undersea earthquake prone fault that extends from Vancouver Island to Northern California. See this link: <http://www.crew.org/earthquake-information/cascadia-subduction-interface> for details. The internet has many more links related to the potential impact of Cascadia event, and don't hesitate to investigate further, but be advised that considerable sensationalism surrounds the subject.

The Cascadia subduction zone has been responsible for numerous massive earthquakes and tsunamis similar to the Japanese event, the last one in 1700, 315 years ago. The average interval is about 240 years, so we are overdue. It might happen tomorrow, it might happen in 100 years or more, but it WILL happen. We need to prepare as much as possible, and the Three Rivers Fire department wants to help with this preparation.

What will be the impact of a Cascadia earthquake/tsunami? The popular press paints an apocalyptic scenario, and certainly it will be devastating, especially in urban areas. But what will be the impact in our local area? Probably the most important reality is that we will be on our own. Many bridges will be out, and public services in more heavily populated areas (even Forks) will be overwhelmed and unable to respond to our needs. This is the major motivation for the department's plan to establish an emergency center at the fire hall.

There are a number of questions about local impact of such an event. Here are some of them:

Q: Will local bridges survive a 9.0 earthquake?

A: Older bridges, such as the Bogachiel bridge on the Lapush road and the Solduc bridge on the Quillayute road will be most at risk. The newer Mora road Solduc bridge will likely survive. Many of the old highway 101 bridges between Port Angeles and Grays Harbor will probably not survive.

Q: How far up the Quillayute system will a Japanese type tsunami penetrate?

A: Obviously LaPush (and the Coast Guard station) will be obliterated. This is why the Quileute tribe has been moving all housing and schools to high ground in recent years. Anyone living on or near the flood plains of the rivers will be a risk and need to quickly evacuate to a tsunami escape route such as the Quillayute road. Fortunately, there will be a 15-20 minute interval between the earthquake and tsunami arrival, and because our rivers courses are heavily forested, the tsunami should dissipate quickly as it moves upstream.

Q: Will our homes survive a massive earthquake?

A: Fortunately, the most earthquake survivable structures are small single family homes, typical of our district. However, a possible problem is falling off the foundation. It is strongly recommended that you look at how your home is fastened to its foundation, and retrofit it if necessary.

Q: What will be the role of Quillayute airport in such an event?

A: Although relief help may not arrive for days or even weeks after the event, when it does it will be by air, and the obvious hub for such relief will be the airport. Its runways are still in excellent condition, and can support large military transports. Facilities are obviously lacking, and we anticipate discussions to upgrade them.

Q: How long will the emergency last?

A: It will be years before everything is back to normal, and it could be weeks before critical services such as electric power and telephone communications are restored. Normal transportation will also be severely impacted, affecting food and fuel availability. These are the factors that justify the department's emergency center plan.

Q: What can district residents do to prepare for a major earthquake/tsunami event?

A: The most important thing is to be aware of the danger and based on your personal situation, have a response plan. After the event, will you be reasonably self-sufficient? What kind of help might you need? This is what the department wants to know.

One area of optimism for us is that people in our district are quite resourceful and able to take care of themselves. We deal with lesser emergencies all the time: power outages, floods, etc. So combined with the resources of a Three Rivers emergency center, we can get through such a major event.