

30 DAYS

ON OUR

OWN



Joyce **E**mergency **P**lanning and **P**rep

WHAT IS AN EMERGENCY?

What are different kinds of emergencies that can impact you?

Emergencies and Natural Disasters

- Blackouts
- Drought
- Earthquakes
- Extreme Heat
- Floods
- Home Fires
- Hurricanes
- Landslides
- Thunderstorms
- Tornadoes
- Tsunamis
- Volcanoes
- Wildfires
- Winter Storms

Ring of Fire

The Ring of Fire accounts for 90% of all earthquakes, and 81% of the world's largest earthquakes

Subduction zones are shown in red

The CSZ fault line is part of the Ring of Fire – ave 250 yr.

The CSZ is the only significant fault line on the Ring of Fire without a major quake in the last 50 years (see blue stars)

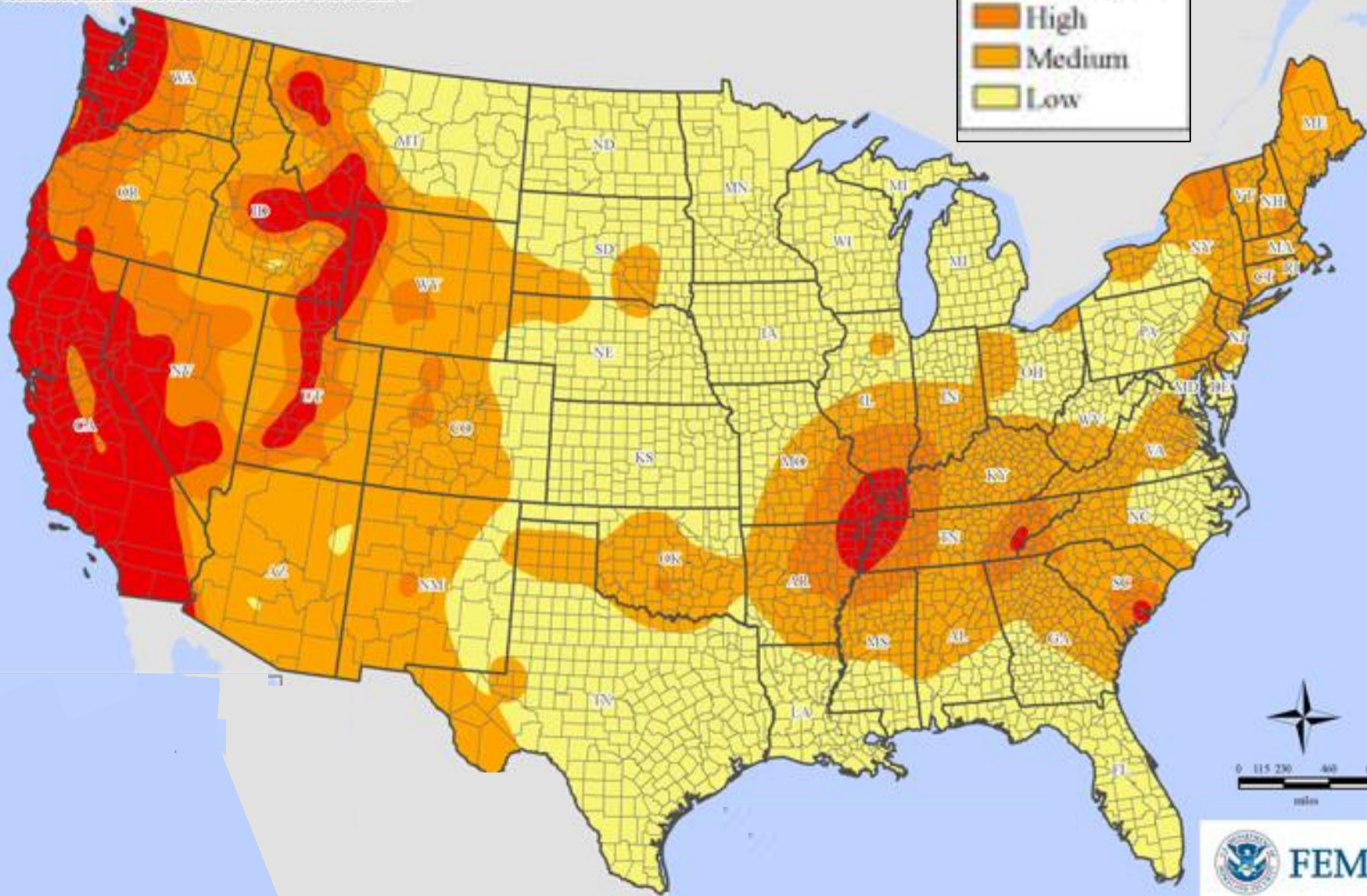
The last event on the CSZ was Jan. 26, 1700 -- over 317 years ago.



EARTHQUAKES

Frequency

- Very high
- High
- Medium
- Low

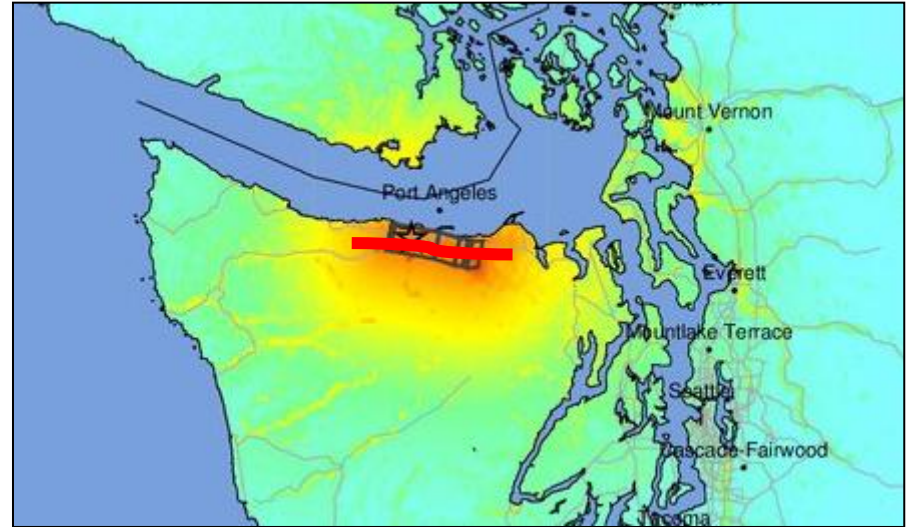


4 Key Earthquake Faults for Clallam County

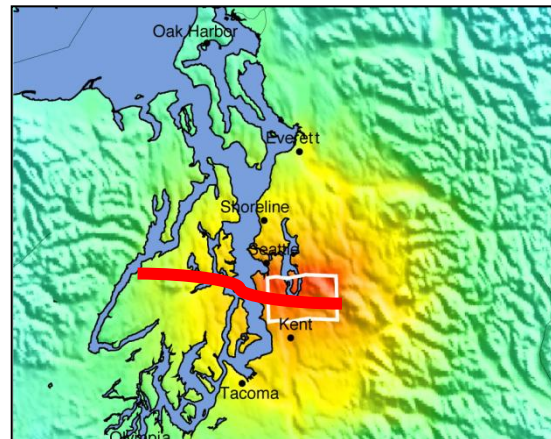
CSZ



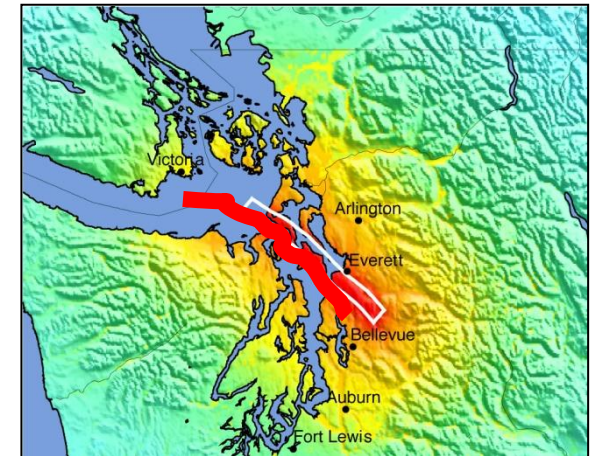
Lake Creek/Boundary Fault

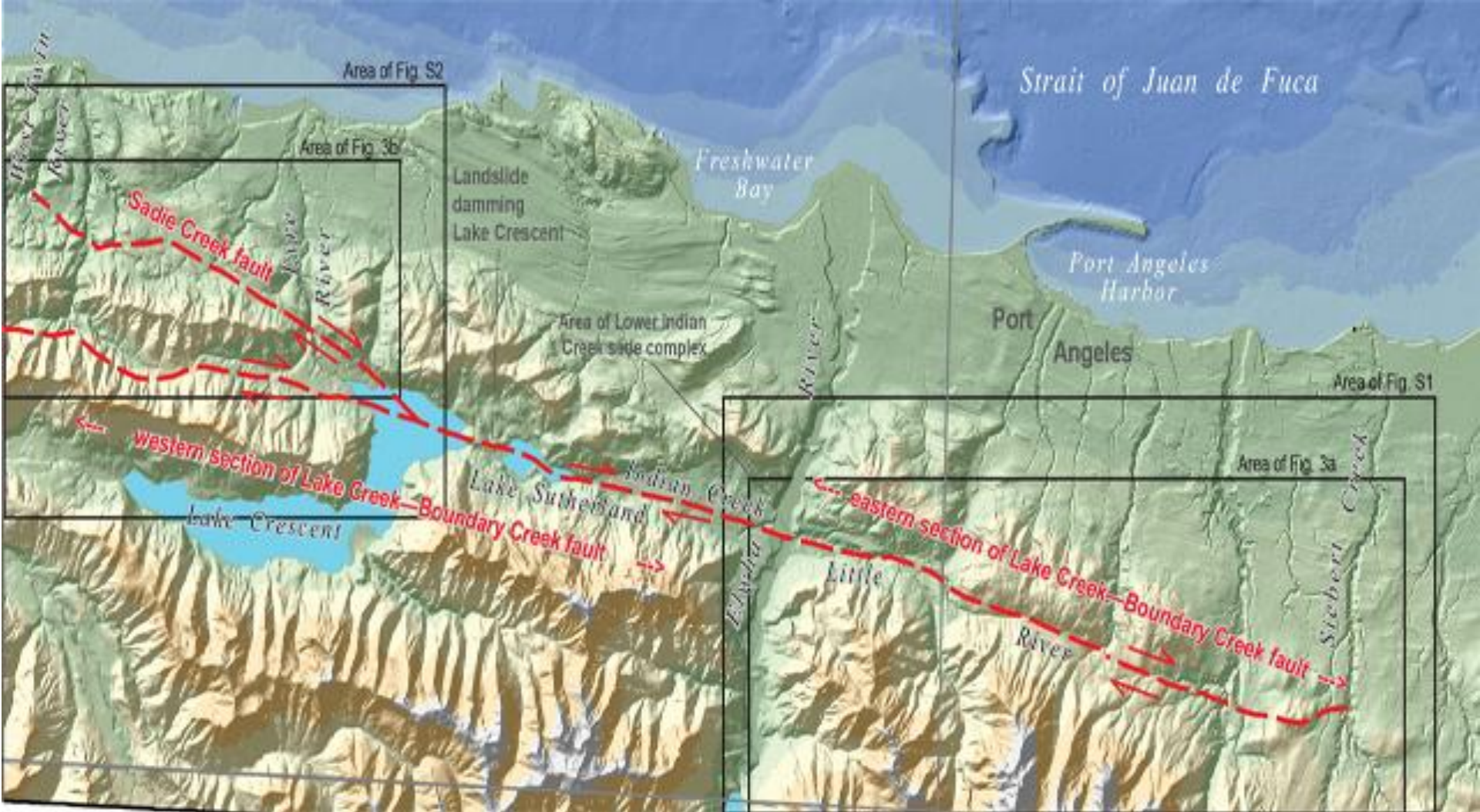


Seattle Fault

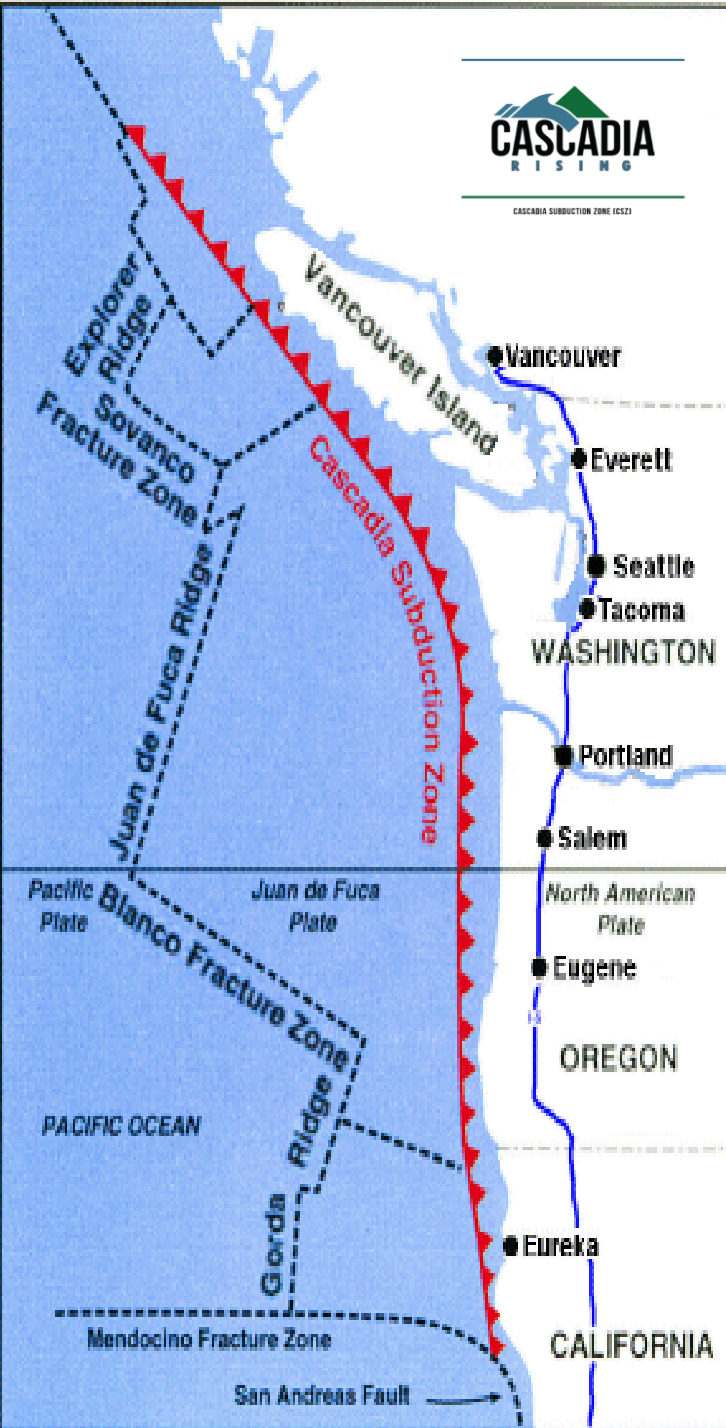


South Whidbey Island Fault





Study Confirms Large Earthquakes along Olympic Mountain Faults 27 September 2017-- A comprehensive study of faults along the north side of the Olympic Mountains of Washington State emphasizes the substantial seismic hazard to the northern Puget Lowland region



Impacts:

Location: **130 miles off coast**

Length of Rupture: **800 miles**

Width of Rupture: **50 miles**

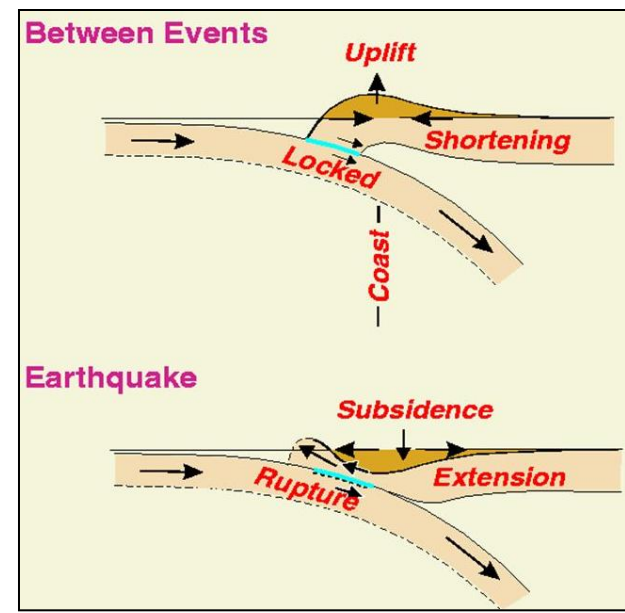
Ground shaking **lasts up to 5 minutes**

Modelled estimates:

13,000 fatalities;
30,000 injured.

Subsidence:

3-6 feet

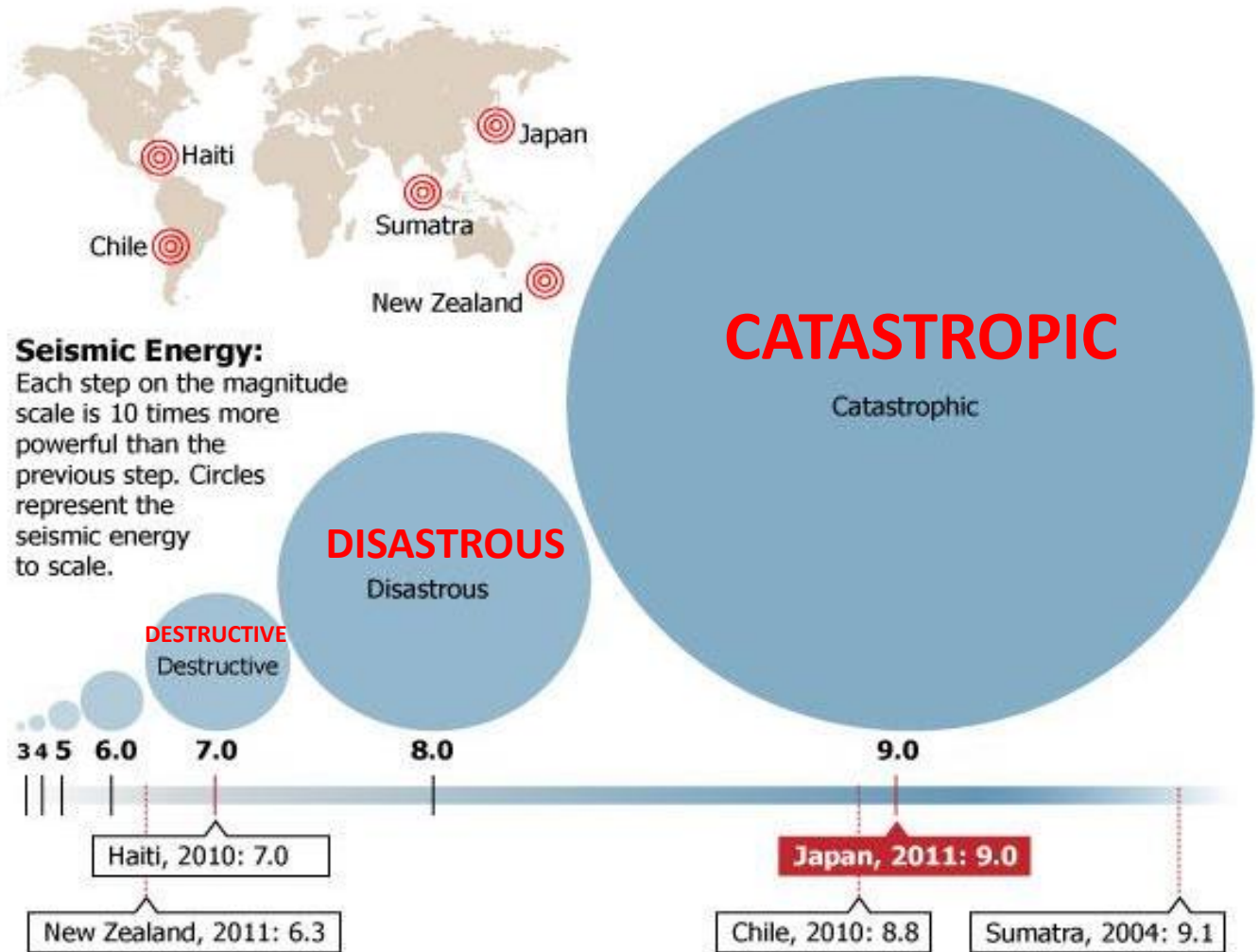




CASCADIA SUBDUCTION ZONE (CSZ)

Magnitudes of Recent Earthquakes

The earthquake off the east coast of Honshu, Japan's largest island, was the fifth-largest ever recorded, according to the U.S. Geological Survey (USGS), and the largest ever recorded in Japan. How it compares in magnitude with other major earthquakes:



SOURCES: USGS, WASHINGTON POST

ROSS TORO, www.OurAmazingPlanet.com

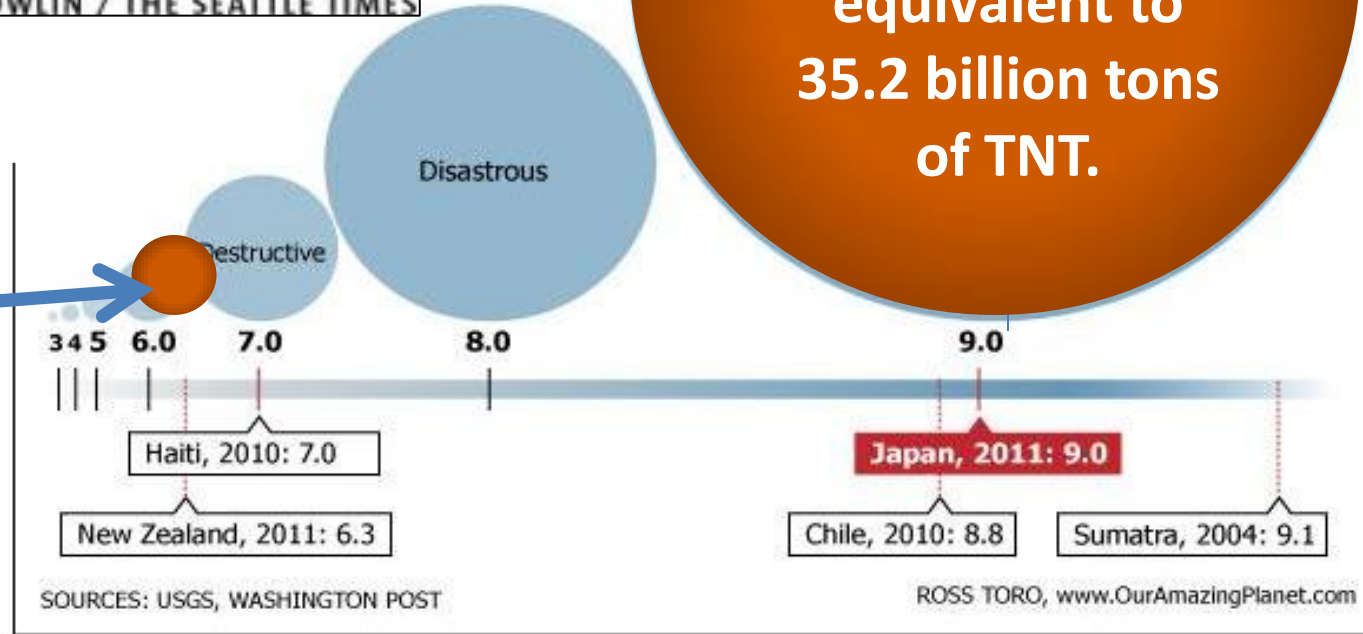
9.0 Richter Magnitude Quake will be 100 times more powerful than the 6.8 Nisqually earthquake in 2001.

Nisqually	Cascadia
DURATION: 30-40 seconds	4-5 minutes*
DEATHS: 1	13,000*
INJURIES: 400	30,000*
DAMAGES: \$2 billion	Over \$80 billion*
BRIDGES DAMAGED: 66	7,000*
DISPLACED PERSONS: 120	915,000*

Sources: Cascadia Rising Scenario; Nisqually Earthquake Clearinghouse Group
 MARK NOWLIN / THE SEATTLE TIMES

**CASCADIA
 megaquake
 energy release
 equivalent to
 35.2 billion tons
 of TNT.**

**2001 Nisqually
 energy release
 equivalent to
 17.6 million
 tons of TNT**

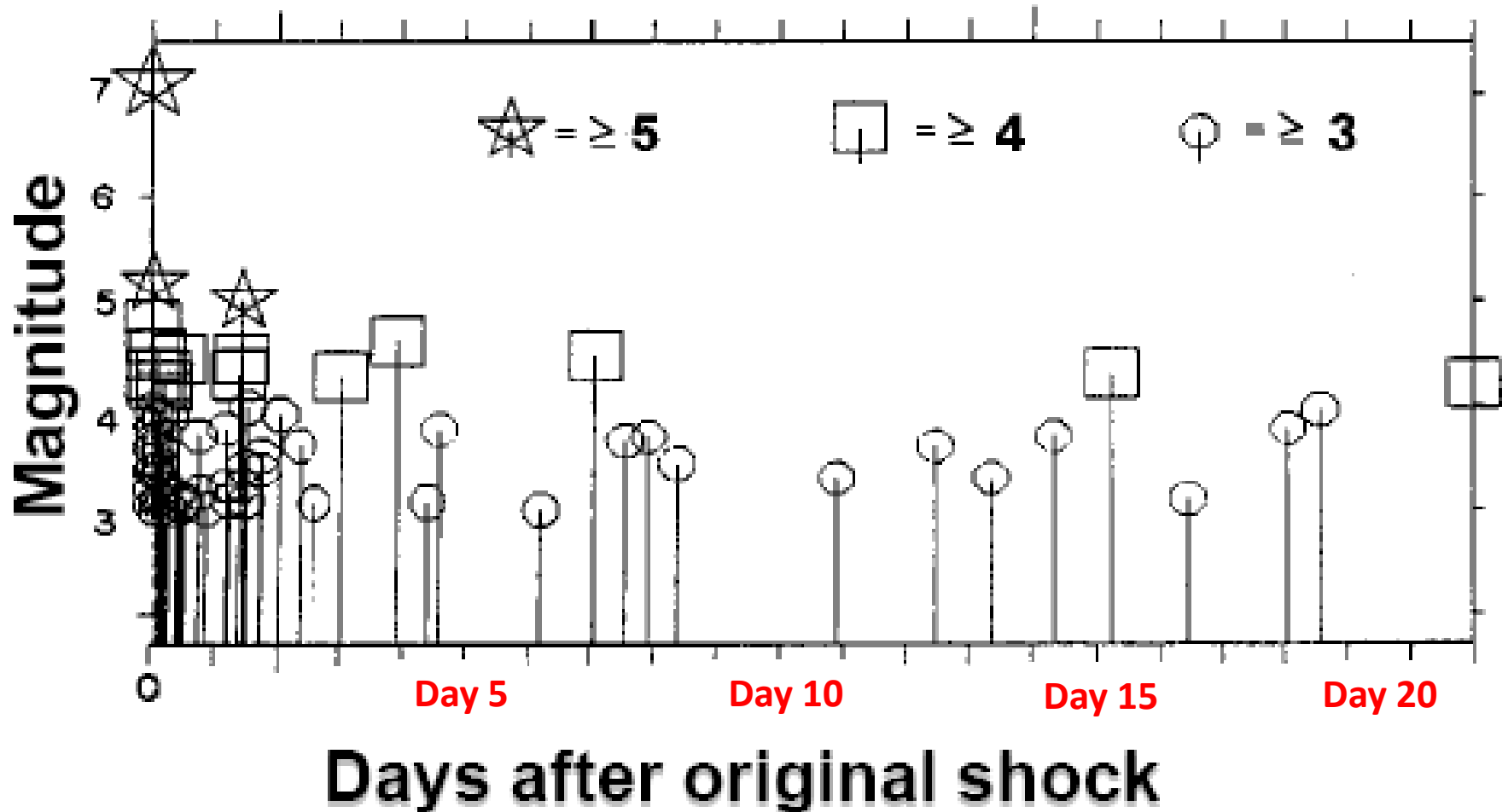


SOURCES: USGS, WASHINGTON POST

ROSS TORO, www.OurAmazingPlanet.com

M 6.9 Responsible for 63 deaths and 3,757 injuries

1989 Loma Prieta Aftershocks



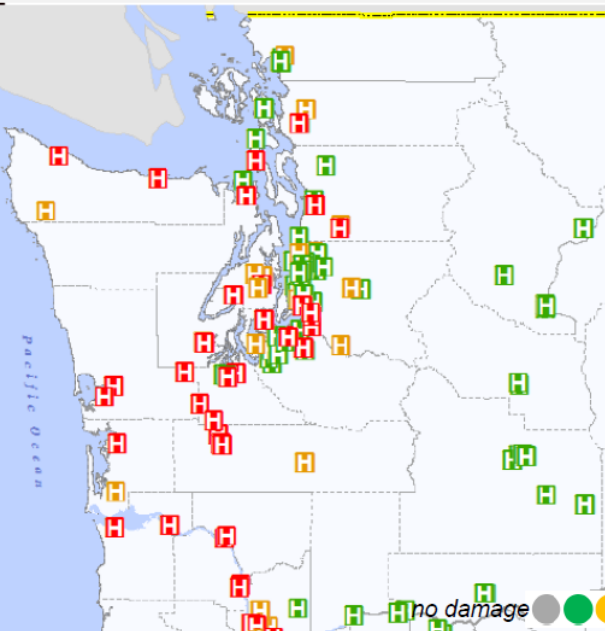
Aftershocks will last for 30 days

- **1** or so aftershock in range of **M8 CATASTROPIC**
- **10** “ “ “ “ **M7 DISASTROUS**
- **100** “ “ “ **Obvious ground cracks;**
- **1000** “ “ “ **railroad tracks bent; some**
landslides on steep hillsides

Aftershocks will last for 30 days

- **1** or so aftershock in range of **M8 CATASTROPIC**
- **10** “ “ “ “ **M7 DISASTROUS**
- **100** “ “ “ “ **M6 DESTRUCTIVE**
- **1000** “ **Felt in moving vehicles, chimneys
collapse; poorly constructed
buildings seriously damaged**

HOSPITALS

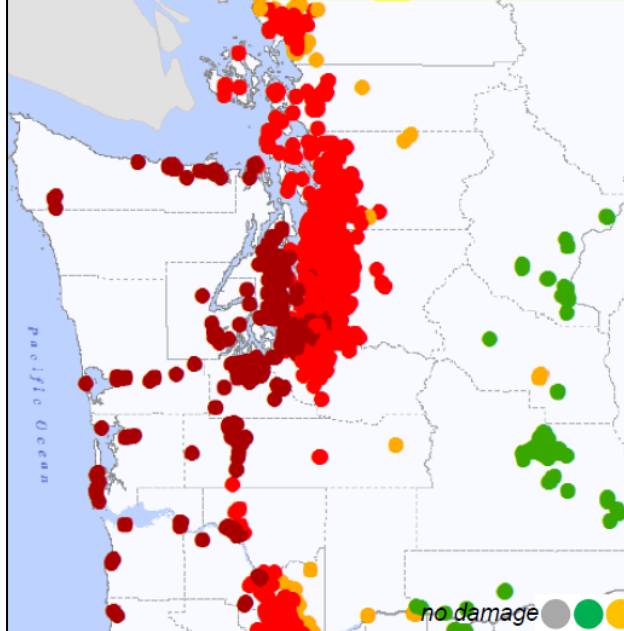


The facilities nearest the epicenter suffer most significant damage resulting in virtually no Hospital capacity west of the I-5 corridor.

Total western Washington hospital capacity is assumed to be reduced by 45% of total hospital capacity.

no damage completely destroyed

SENIOR LIVING FACILITIES

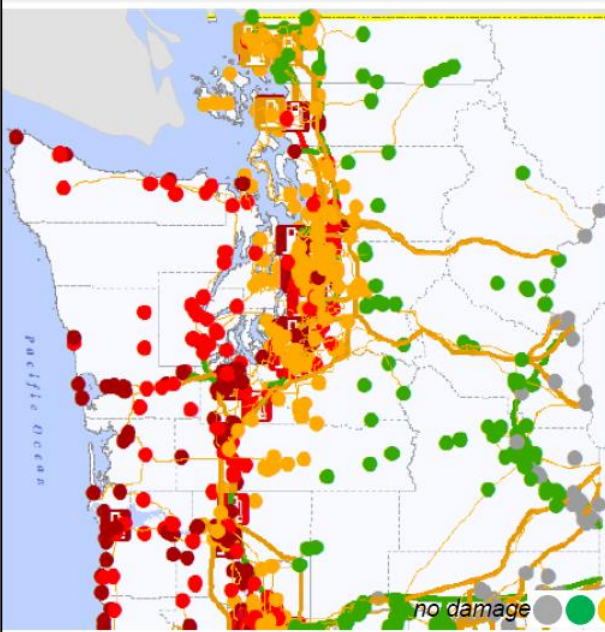


The facilities nearest the epicenter suffer most significant damage.

Virtually no senior/DD living facility capacity remains west of the I-5 corridor.

no damage completely destroyed

UTILITIES

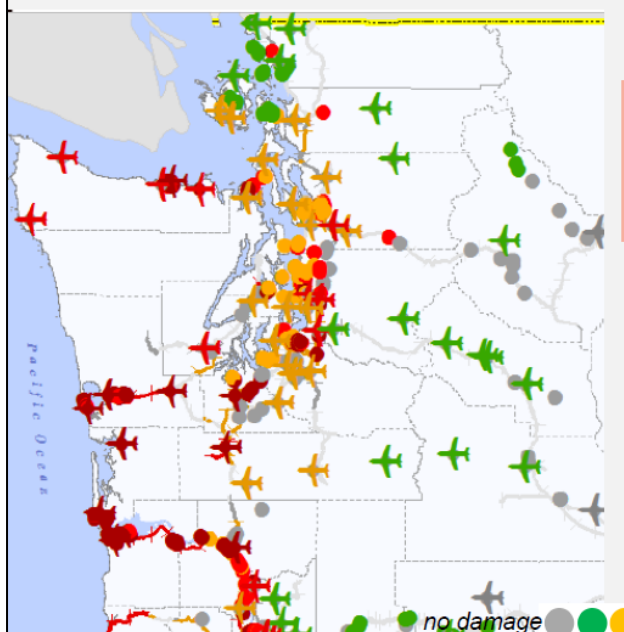


Electrical, water and sewer systems will be out-of-service until significant repairs can be made.

Broken sewer lines have been a serious public health issue in other earthquake events.

no damage completely destroyed

AIR TRANSPORTATION

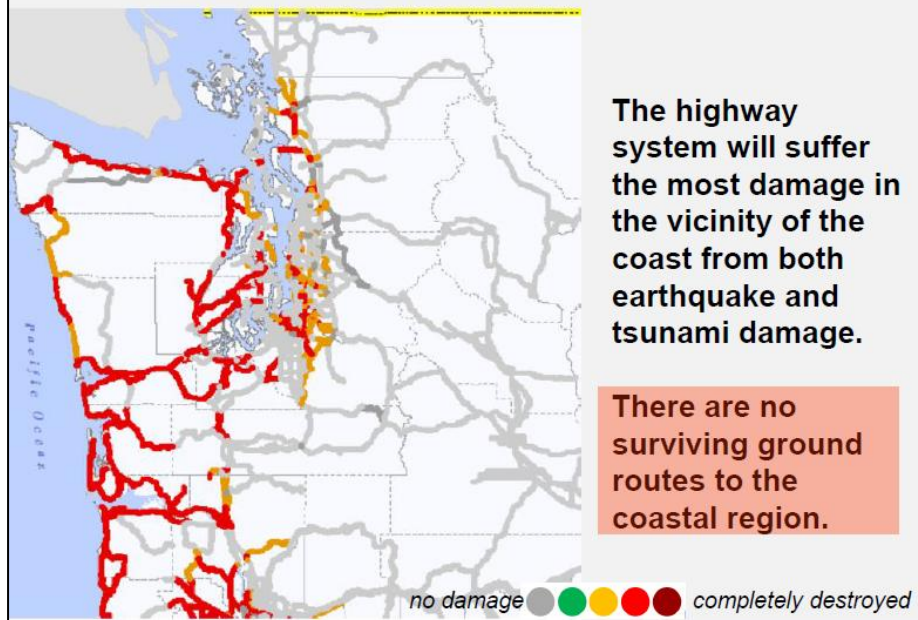


Most airports west of the I-5 corridor suffer complete to severe damage.

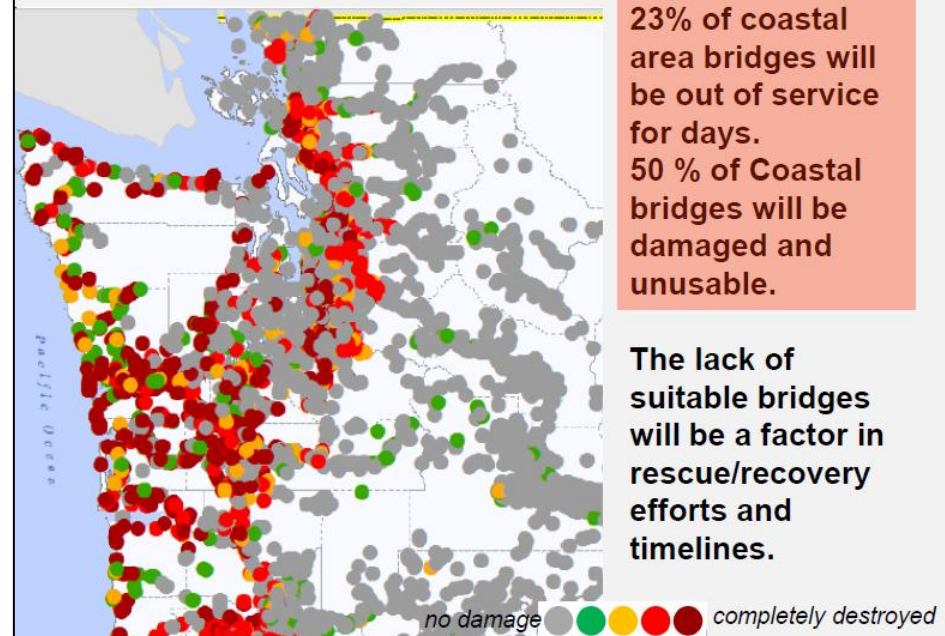
Most airports along the I-5 corridor suffer severe to moderate damage.

no damage completely destroyed

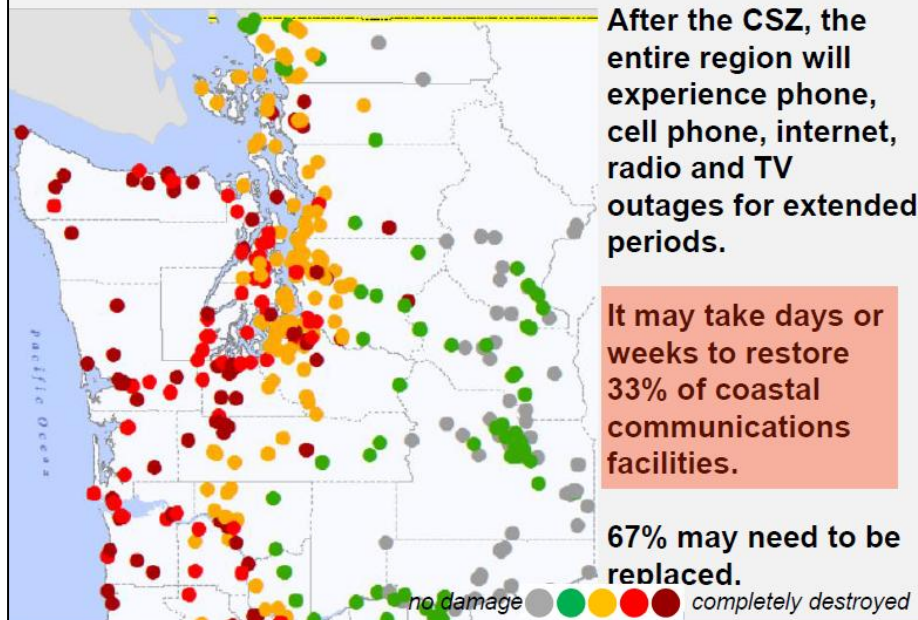
HIGHWAYS



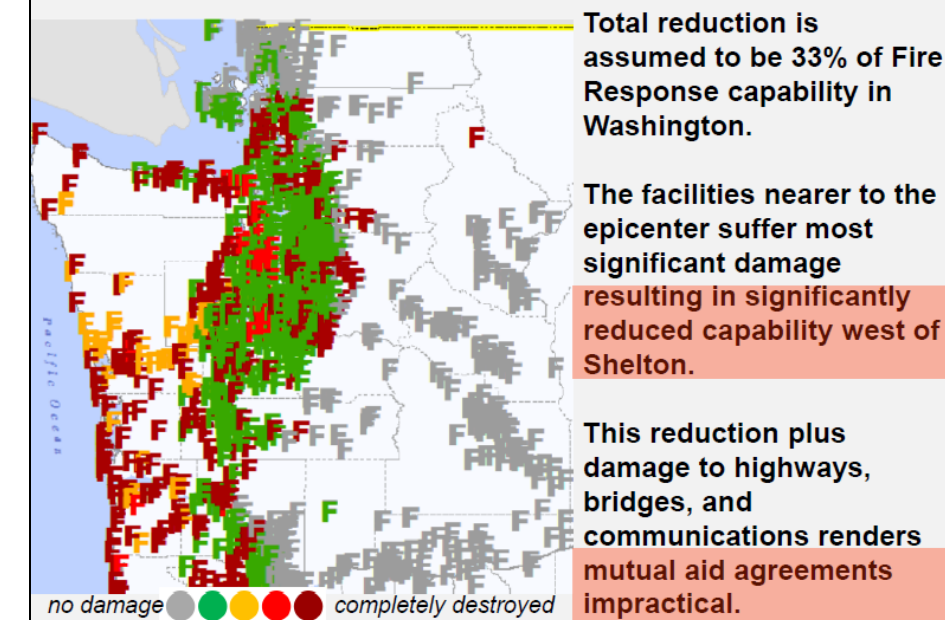
BRIDGES



COMMUNICATIONS



FIRE STATIONS





FEMA

HIGHWAY IMPACT

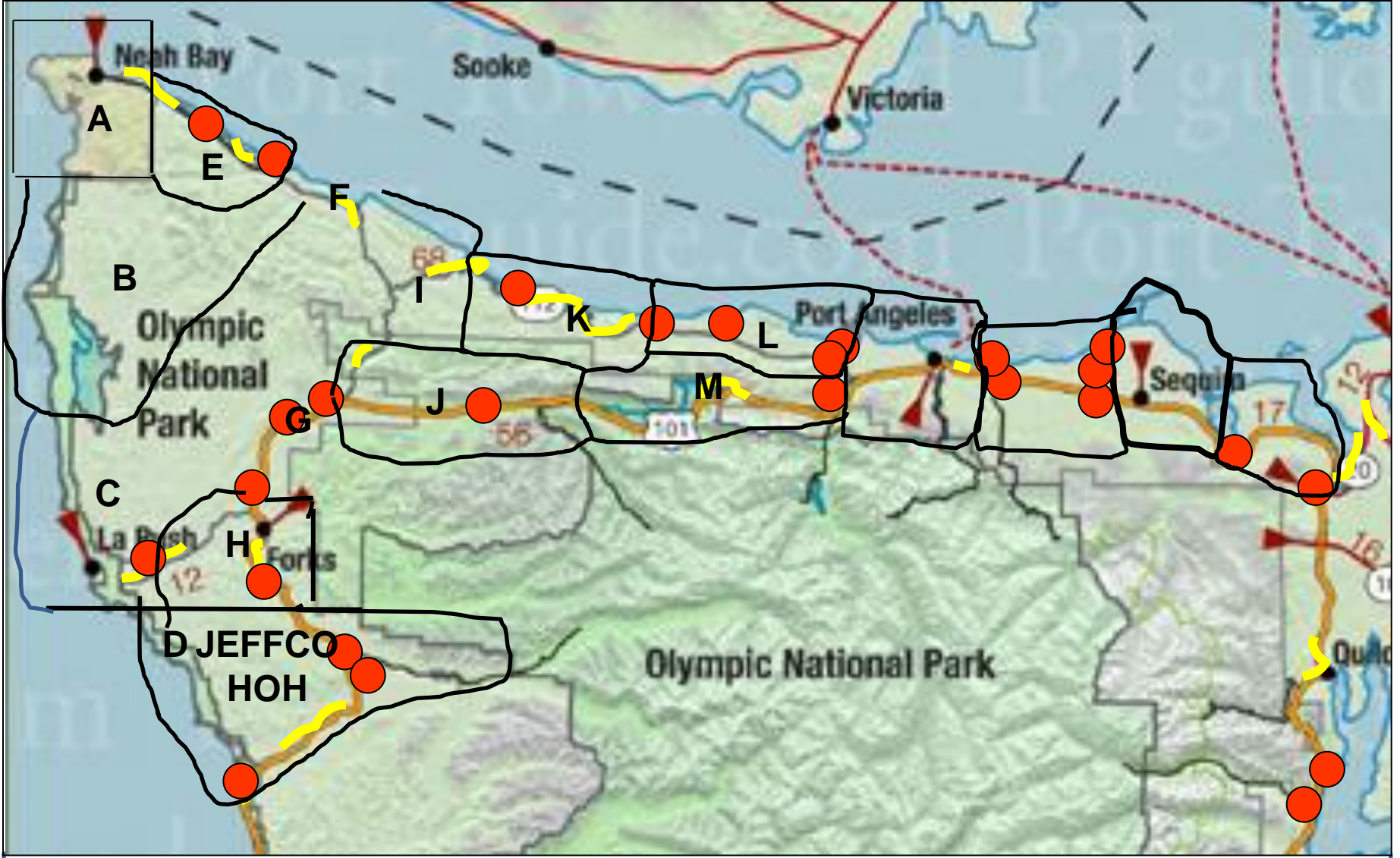


CASCADIA SUBDUCTION ZONE (CSZ)

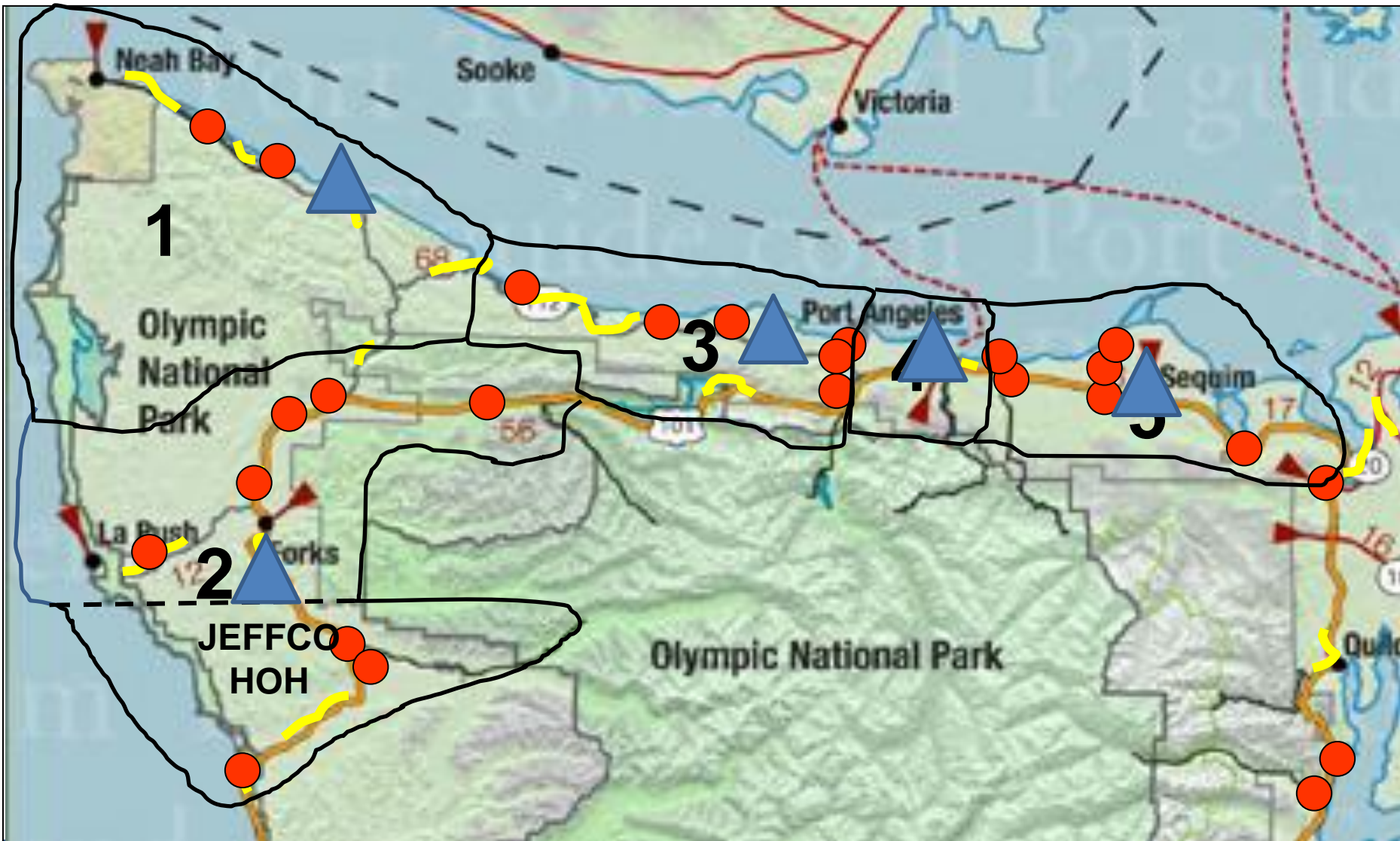
Damage Caused by Earthquakes



30 Days on Our Own



Communities become micro-islands (Divisions) due to the loss of bridges, roads and tsunami zones.



County's Strategy: Micro-islands (Divisions) are grouped into Command Areas based on the following hubs: Forks, Clallam Bay/Neah Bay, Joyce, Port Angeles, & Sequim

Effects of Earthquakes

October – Great Shake Out



Effects of Earthquakes

Ground Shaking



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Effects of Earthquakes

Ground Rupture



**30 Days on
Our Own**

Effects of Earthquakes

Landslides



Effects of Earthquakes

Tsunamis



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Effects of Earthquakes

Liquefaction



30 Days on Our Own

Effects of Earthquakes

Fires



THE GOLDEN DAY

Entrapped Victim Survival Rate

Time Until Rescue *Survival Rate*

30 Minutes	99.3%
1 Day	81.0%
2 Days	36.7%
3 Days	33.7%
4 Days	19.0%
5 Days	7.4%

The Rule of 3's

- You can survive:
 - **3 minutes** without **AIR**
 - **3 days** without **WATER**
 - **3 weeks** without **FOOD**

Are you
prepared for
a major disaster?

Shelter at Home

30 days on our own

Best option for most families

- Organize your emergency supplies
- Make a family plan
- Map Your Neighborhood
- Make a Go-Bag



Go-Bags help you be prepared for an evacuation in the case of an emergency. What would you need?





FOOD FOR 30 DAYS

- Ready-to-eat canned meats, fruits and vegetables
- Canned juices, milk, soup (if powdered, store extra water)
- Staples – salt, sugar, pepper
- High energy foods – peanut butter, jelly, crackers, granola bars, trail mix
- Vitamins
- Food for infants, elderly persons, or those with special diets
- Comfort/stress foods – cookies, hard candy, sweetened cereals, lollipops, instant coffee, tea bags



WATER OR FILTER FOR 30 DAYS

Store water in glass or heavy plastic containers or filter. Avoid using containers that will break or decompose such as milk cartons. A normally active person needs 1.1 gallons of water each day for drinking and food items.



FIRST AID SUPPLIES FOR 30 DAYS

Assemble a first aid kit for your home and one for each car. A first aid kit should include:

- Sterile adhesive bandages in assorted sizes
- Assorted sizes of safety pins
- Cleansing agent / soap
- Latex gloves (2 pairs)
- Non-prescription drugs
 - Aspirin or non-aspirin pain reliever
 - Anti-diarrhea medication
 - Antacid for stomach upset
 - Syrup of Ipecac
 - Laxative
- bandages
- Scissors
- Tweezers
- Needles
- Antiseptic
- Thermometer
- Tube of petroleum jelly or other lubricant



TOOLS and SUPPLIES FOR 30 DAYS

- Mess kits, or paper cups, plates, and plastic utensils
- Radio, Flashlight and extra batteries
- Non-electric can opener, utility knife
- Plastic or tarps to cover windows
- Tent (to set up in your house)
- Hammer, Crowbar, Pliers
- Duct Tape
- Matches in a waterproof container
- Aluminum foil
- Plastic storage containers
- Signal flare
- Paper, pencil
- Needles, thread
- Shut-off wrench, to turn off household gas and water
- Whistle
- Pry bar
- Plastic sheeting
- Sanitation supplies
 - Soap, liquid detergent
 - Plastic garbage bags
 - Plastic bucket with tight lid
 - Disinfectant
 - Bleach
 - Broom



CLOTHING and BEDDING FOR 30 DAYS

Include at least one complete change of clothing and footwear per person

- **Sturdy shoes or work boots**
- **Rain gear**
- **Blankets or sleeping bags**
- **Hat and gloves**
- **Thermal underwear**
- **sunglasses**



SPECIAL ITEMS FOR 30 DAYS

Remember family members with special requirements, such as infants and elderly or disabled person

For baby:

Formula

- **Diapers**
- **Bottles**
- **Powdered milk**



For adults:

Medication

- **Insulin**
- **Denture needs**
- **Contact lenses and supplies**
- **Extra eye glasses**



Entertainment: **Games and books**



Important family documents

- **Will, insurance policies, contracts, deeds, stocks and bonds**
- **Passports, social security cards, immunization records**
- **Important telephone numbers**
- **Family records**



30 Days On Our Own

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DISASTER PREP SUPPLIES

There are six categories of items you should have in your home:

- ❖ Food,
- ❖ Water,
- ❖ First aid supplies,
- ❖ Clothing and bedding,
- ❖ Tools and emergency supplies,
- ❖ And special items.



Keep the items that you would most likely need during an evacuation in an easy-to-find or easy-to-carry container, such as a large, covered trash container, a backpack or a duffle bag. There are many lists on the internet but the following examples are "FOOD FOR THOUGHT".

FOOD FOR 30 DAYS

Store a 30-day supply of non-perishable foods that require no refrigeration and little or no water, preparation or cooking. If you must heat food, pack a few cans of sterno. Select food items that are compact and lightweight. Include a selection of the following foods in your Disaster Supplies:

- Ready-to-eat canned meats, fruits and vegetables
- Canned juices, milk, soup (if powdered, store extra water)
- Staples – salt, sugar, pepper
- High energy foods – peanut butter, jelly, crackers, granola bars, trail mix
- Vitamins
- Food for infants, elderly persons, or those with special diets
- Comfort/stress foods – cookies, hard candy, sweetened cereals, lollipops, instant coffee, tea bags

