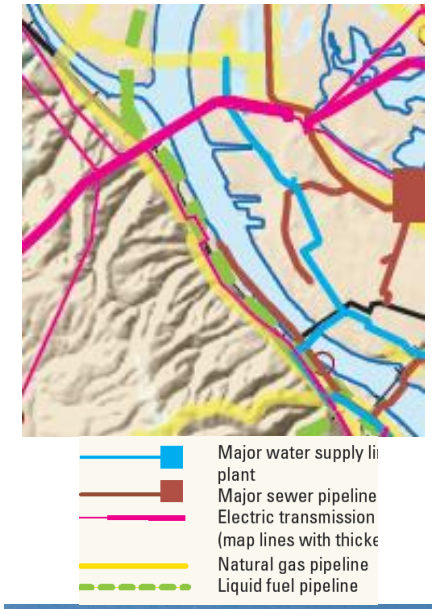
ENERGY TASK GROUP RECOMMENDATIONS

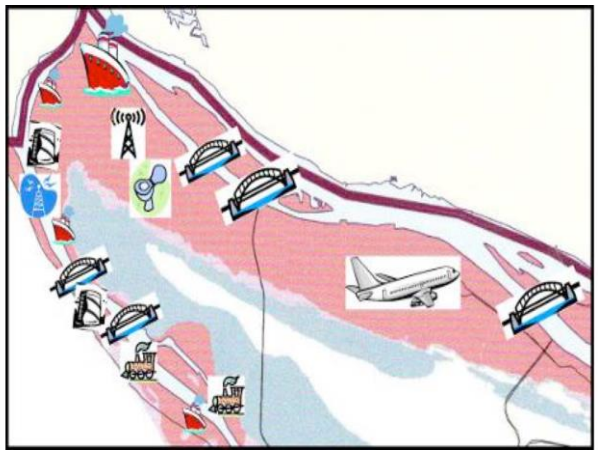
2012/2013



Electric

Natural Gas

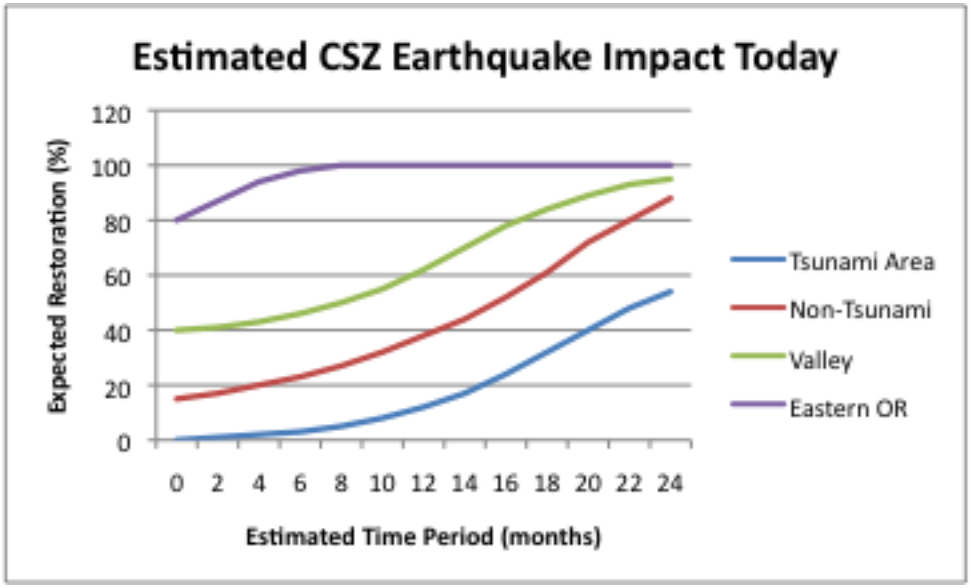
Liquid Fuel



CSZ RESILIENCY - TODAY

The Four Regions

- Tsunami Impacted Coastal areas
- Tsunami Not-Impacted Coastal areas
- Valley/I-5 Corridor
- Eastern Oregon



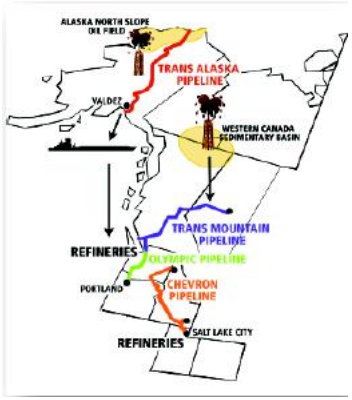
Recovery Timeframe Graphical Representation

Impact of a CSZ earthquake today for each of the regions, with the exception of Eastern Oregon, would be catastrophic!

IDENTIFIED RISKS

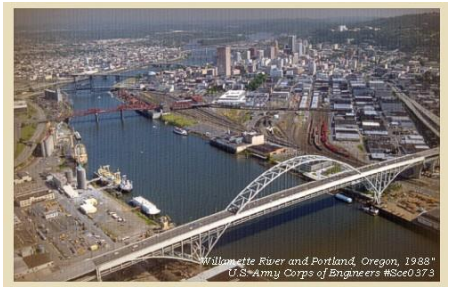
Liquid Fuel

- Liquid Fuels Delivery Systems
  - Pipelines
  - Marine Vessels



- Storage – The bulk in tank Farms

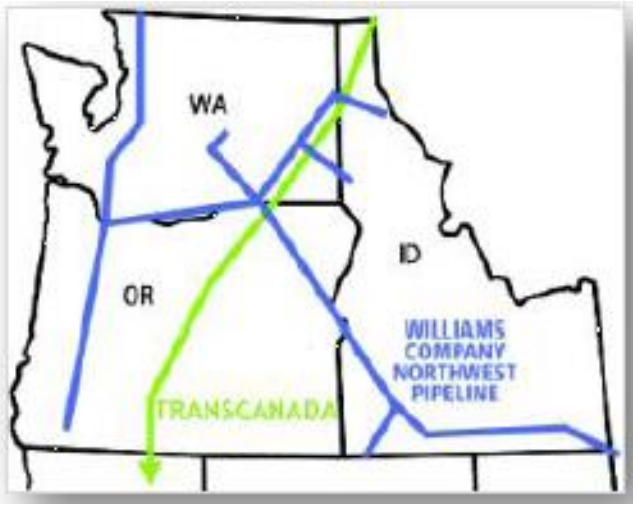
- Shipping Channel



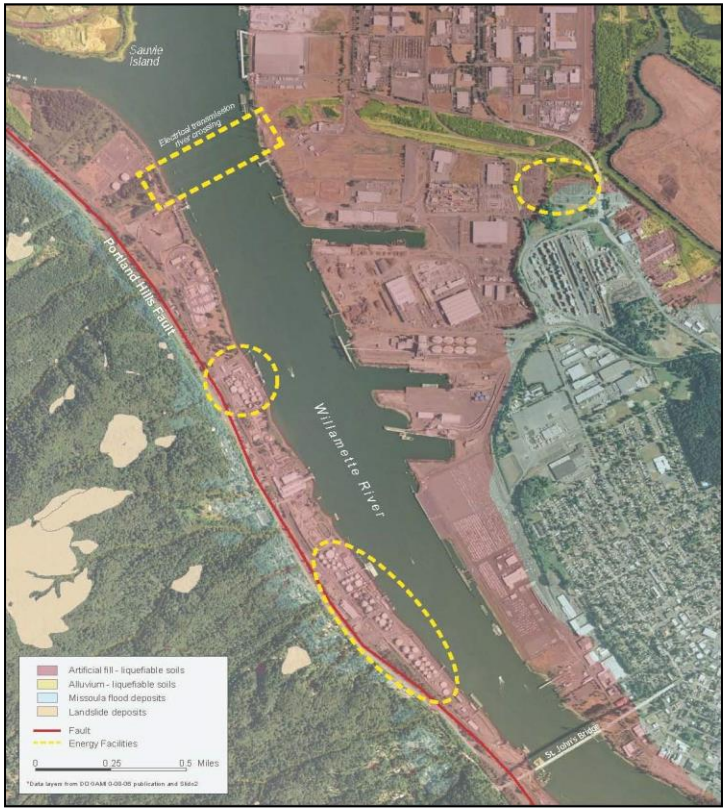
- Marine Terminals
- Fuel Supply

IDENTIFIED RISKS

- Natural Gas



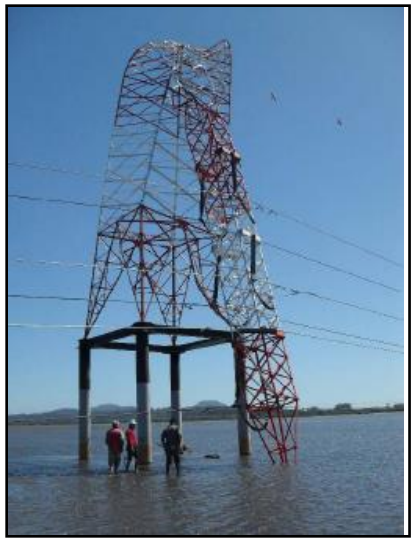
- Power



- The Critical Energy Hub

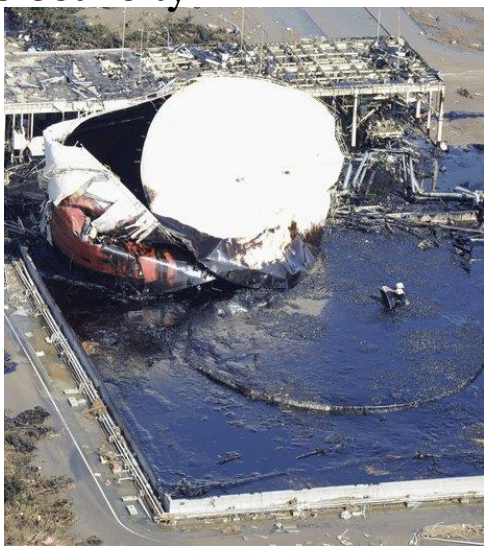
Interdependencies will make disaster recovery much more difficult. The earthquake will damage all systems at the same time.

To restore electric service, you need to reopen roads



To restore water service, you need electricity

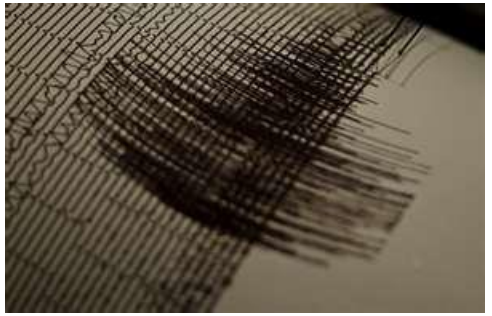
To restore fuel supplies you need electricity



To reopen roads, you need to restore fuel supplies

IMPACTS – REALISTIC ASSESSMENT

- Seismic Event - Chile and Japan



IMPACTS TO OREGON

- Significant seismic risk exists in the CEI
- Critically important energy structures are susceptible to significant damage with catastrophic consequences
  - liquid fuel/natural gas transmission pipes
  - liquid fuel/natural gas storage, and
  - electrical facilities (transmission/power equipment)
- The waterway is expected to be closed and require clean up.

IMPACTS TO OREGON (Cont.)

- Western Oregon will face:
  - Electrical blackout
  - Extended natural gas service outages
  - Severe liquid fuel shortage
  - Damage and losses in the tens of billions of dollars

Energy Sector Recommendations

Establish State Resilience Office to lead coordinated efforts

- OPUC provide oversight for seismic preparedness of energy operators that they regulate
- Develop new regulatory oversight for energy operators not regulated by OPUC, and create engagement in seismic mitigation efforts for them
- Energy operators conduct seismic vulnerability assessments of critical energy infrastructure facilities and develop mitigation plans
- Energy operators institutionalize long-term seismic mitigation programs and work with the appropriate oversight authority

Energy Sector Recommendations

- State provide immunity of liability, in statute, for seismic vulnerabilities that are identified by the energy operators in their seismic vulnerability assessments
- State provide statutory authority for prescriptive waivers of routine permitting requirements for design, construction, and restoration of energy infrastructure, if in the public interest and needed due to disaster
- Form public-private partnership to evaluate the diversification of locations of liquid fuels storage and new energy corridors
- State require liquid fuel wholesale and retail operators to provide access to and alternate means of delivering fuels

Energy Sector Recommendations

- Evaluate options for improving power supply to coastal areas located outside of the tsunami inundation zone
- Public-private sector employee to ensure coordinated planning, information sharing, and interoperability among critical organizations and agencies

Establish State Resilience Office to lead coordinated efforts