

Earthquake Resilience and Portland Harbor

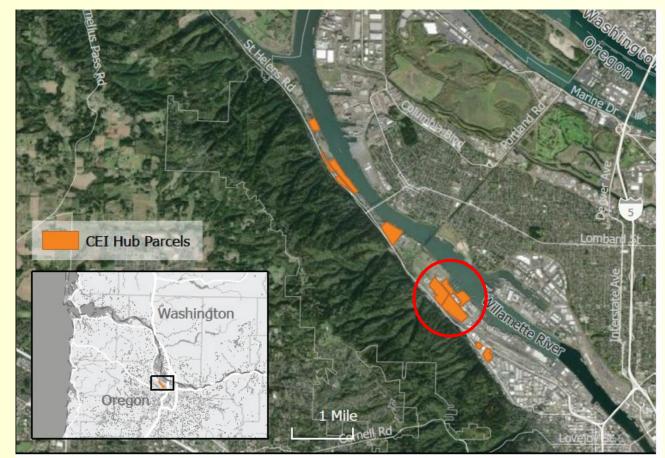
- Fuel Tank Seismic Stability Legislation
 - DEQ Implementation Status
 - Questions or comments

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Introduction to the Critical Energy Infrastructure (CEI) Hub

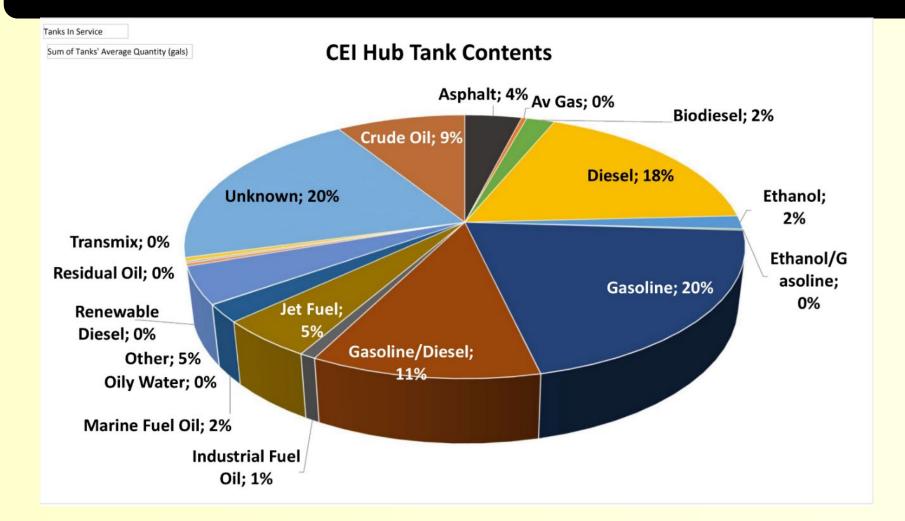
- Situated near Downtown Portland
- 6 mile zone previously wetlands & Lakes
- Filled in with dredge spoils (poor soils) vulnerable to liquefaction
- 14 Tank Farms (plus 2 in Clatskanie and 1 in Eugene for 17 total)
- 350 Million Gallons of all types of refined oil and crude oil
- 3 pipelines, 537 Tanks
- <2% of tanks built since 1993
- <u>This is 90% of Oregon's Oil Supply</u>



Source: Created by ECONorthwest.



CEI Hub Tank Contents

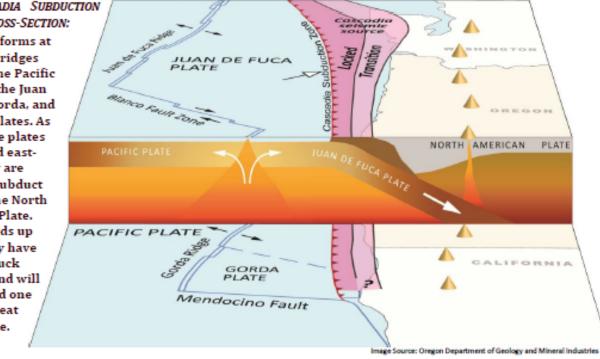




Overview of Cascadia Subduction Zone Earthquake Risk

Juan De Fuca Plate is moving underneath the North America

THE CASCADIA SUBDUCTION ZONE IN CROSS-SECTION: New crust forms at spreading ridges between the Pacific Plate and the Juan de Fuca. Gorda. and Explorer plates. As these three plates are pushed eastward, they are forced to subduct beneath the North American Plate. Strain builds up where they have become stuck (locked) and will be released one day in a great earthquake.



Source: CREW Cascadia Subduction Zone Earthquakes: Magnitude 9.0 Earthquake Scenario 2013



CEI Hub Detail of Willbridge Area





Oregon Senate Bill 1567 (2022) Fuel Tank Seismic Stability Progam

- Effective June 3, 2022. Requires 17 facilities with fuel storage capacity over two million gallons to assess their seismic vulnerability and improve their infrastructure to better withstand earthquakes
- Facilities have until June 2024 to conduct the seismic vulnerability assessments and propose risk mitigation plans
- DEQ is convening a rule advisory committee to develop a proposal for assessment, mitigation, inspection requirements and mitigation plan review fees. Public comment and rule adoption is planned for mid 2023.
- DEQ is hiring 4 staff (policy analyst, engineer, inspector, and administrative specialist) and contracting for special technical assistance
- Sign up for updates at: <u>www.oregon.gov/deq/tanks/Pages/seismictanks.aspx</u>



References

More information is available at these references:

- EcoNorthwest Report on Impacts of Fuel Releases from CEI Hub https://econw.com/projects-collection/2022/2/23/impacts-of-fuel-releases-from-the-ceihub-1
- Oregon Fuel Action Plan <u>https://www.oregon.gov/energy/safety-</u> resiliency/Documents/Oregon-Fuel-Action-Plan.pdf

Other CEI Hub References:

- OSSPAC CEI Hub Mitigation Strategies: <u>https://www.oregon.gov/oem/Documents/OSSPAC_CEI-Hub_report_122019.pdf</u>
- Oregon Dept of Geology & Mineral Industries Earthquake Risk Study for Oregon's CEI Hub <u>https://www.oregongeology.org/earthquakes/CEI-Hub-report.pdf</u>



Questions or comments?

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