BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
– HB 2749

Co-Chair Senator Chris Gorsek
Co-Chair Representative Susan McLain
Co-Vice Chair Senator Bruce Starr
Co-Vice Chair Representative Shelley Boshart Davis
Members of the Committee

11 April 2025

Total support for HB 2749, noting that Ways and Means has no possibility of funding secure transportation infrastructure in Oregon, for infrastructure never built to current seismic compliances

Our concern:
Section 2. "The City of Portland is encouraged to seek and apply for federal funding to aid in the design and construction of a bridge across Columbia Boulevard." Infrastructure funds are impounded under Federal EO 14154.

Today we find that funds appropriated by the 2021 Bipartisan Infrastructure Law ($739B) are impounded together with the 2022 Inflation Reduction Act funds ($1.2T), illegally contradicting Congressional mandates.

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

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What DC attorneys say about IRA and IIJA funds

- Funds were blocked, then released for some appropriations
- No funds are being disbursed, State AGs have sued

https://www.arnoldporter.com/en/perspectives/advisories/2025/02/funding-pauses-and-uncertainty-under-ira-and-iija

What ODOT says about IRA and IIJA impoundments:

> "Bridge funding provided under the IIJA is one of the types of funds for which all new obligations are on hold."
> https://www.oregon.gov/odot/about/pages/federal-funding-eo-pause.aspx

- This means that any critical fuels or rail infrastructure bills will not be funded, indefinitely
- These bills are on a death march to W&M

So, we need a bill to outlaw any Cascadia tectonic disasters until Congress can solve the Exec Branch holdups. $$$$ Holdups.

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– HB 2749

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Oregon Critical Infrastructure
Serving Multnomah North Peninsula Communities

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

11 April 2025

What is the impact of these findings on Oregon business development and state economy?

The predicted and inevitable tectonic megaquake will result in guaranteed infrastructure collapse for 90% of Oregon transport fuels. Bad for business.

Build a boat after the storm? Infrastructure needed in the aftermath of an inevitable Cascadia megaquake is not being prepared to survive:

- Washington State fuels pipeline to the Portland CEI Hub will fail 100%
- The CEI Hub will fail 100% from any M8 or M9 event
- Petroleum smoke and chemical fumes will threaten North Peninsula industry and residents
- Simultaneous collapse of seismically non-compliant 100-year-old rail overpasses will strand all eastward escape routes
- No viable routes to north, west or south

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

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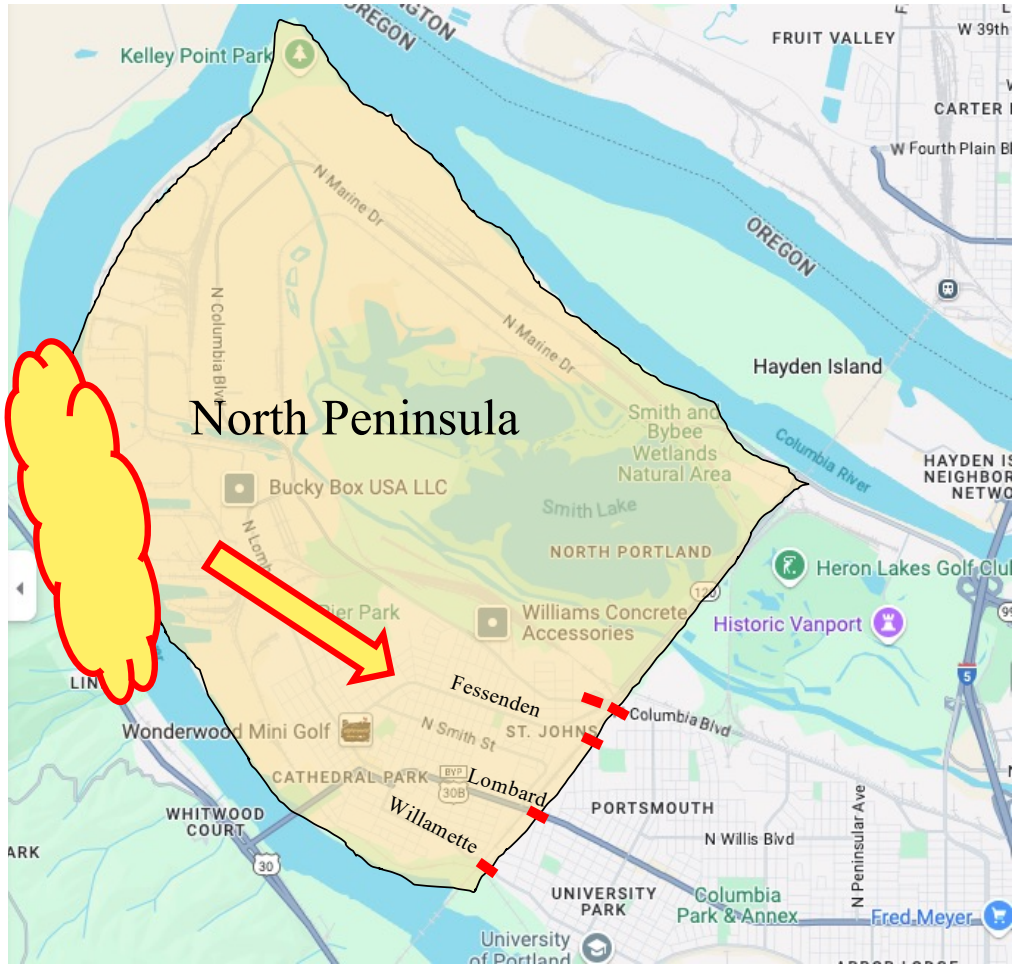
No one is arguing that the North Peninsula is not THE most threatened Community for stranding from infrastructure collapse – no eastward escape routes. Population 30,000



Threats not being disputed:

- CEI Hub seismic collapse, with fire, toxic smoke and chemical plume releases
- Simultaneous bridge failures at Portsmouth rail cut: 4 BNSF rail overpasses with no seismic compliances, all > 100 yrs with no retrofits
- No enforceable USDOT infrastructure mandates, no stockholder due diligence.
- Successful externalized risk by Berkshire Hathaway
- 2021 BIL impounded
- 2022 IRA impounded

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

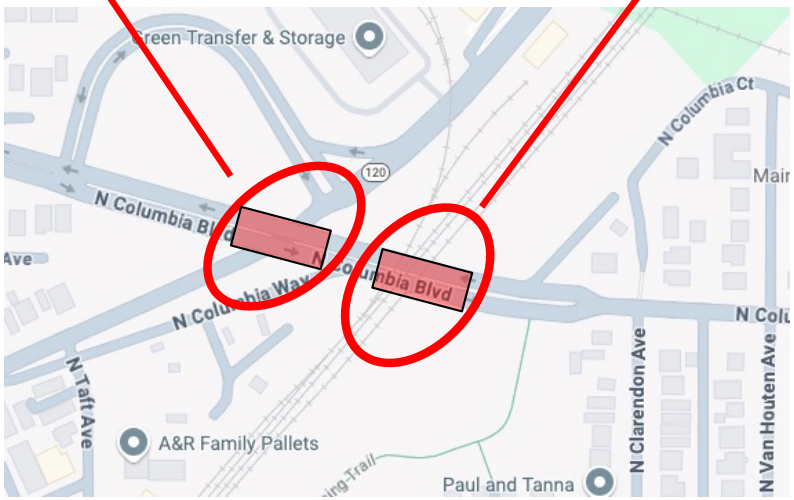
11 April 2025

North Columbia Blvd
Road Bridge Overpass

PBOT, 1968
Age 56 years

North Columbia Blvd Bridge
BNSF Rail Overpass

BNSF, 1909
Age 115 years



Two bridges
Total PBOT replacement cost:
$57.5M (2027 dollars)
Emergency plan
No funding

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
– HB 2749

11 April 2025

Fessenden Street Bridge

BNSF 1909
Age 115 years
Replacement cost
$37M (2027 dollars, no plan)

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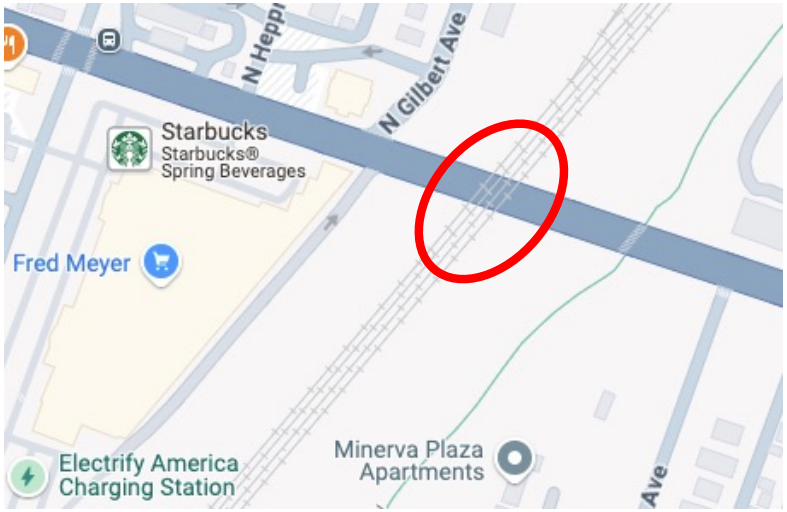
– HB 2749

11 April 2025

North Lombard Street Bridge



BNSF 1908
Age 116 years
Replacement cost
$37M (2027 dollars, no plan)

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
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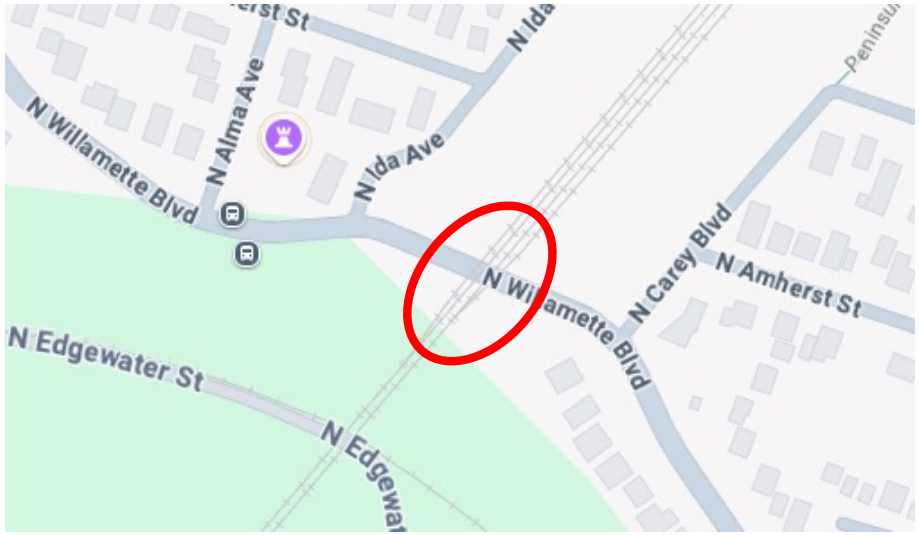
North Willamette Blvd Bridge



BNSF 1907
Age 117 years
Replacement cost
$37M (2027 dollars, no plan)

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
– HB 2749

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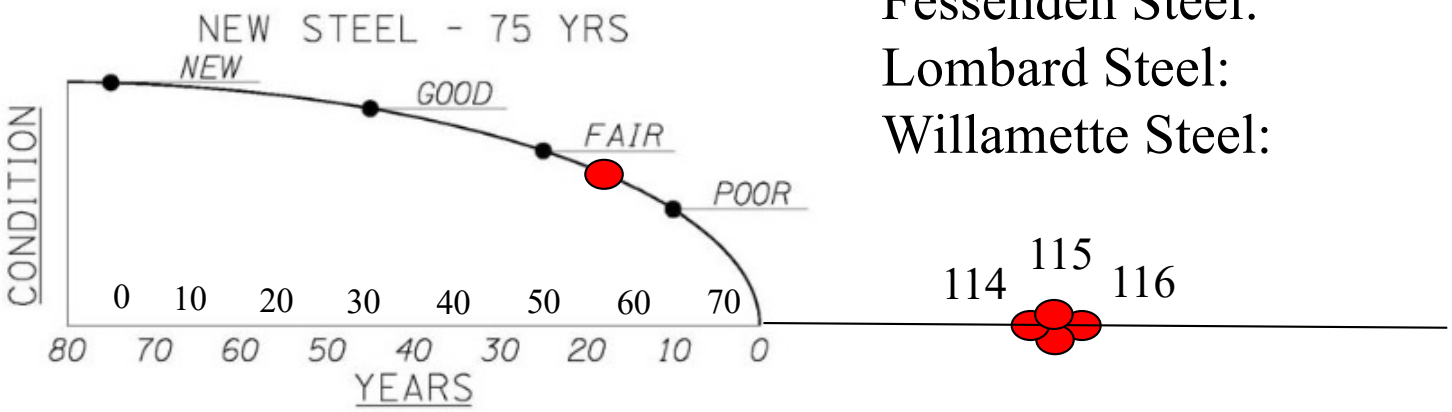
OREGON RAIL BRIDGE ASSESSMENTS
FINAL REPORT OF STUDY FINDINGS



Columbia BNSF Rail Overpass: 115
Columbia PBOT Road Overpass: 56
Fessenden Steel: 115
Lombard Steel: 116
Willamette Steel: 114

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

Oregon Legislature Joint Committee on Transport, 4 June 2024

11 April 2025

Donna Cohen, St. Johns
https://olis.oregonlegislature.gov/liz/2023I1/Downloads/CommitteeMeetingDocument/284340

SJNA, PBOT Zef Wagner
https://olis.oregonlegislature.gov/liz/2023I1/Downloads/CommitteeMeetingDocument/284447

RJ Demello
https://olis.oregonlegislature.gov/liz/2023I1/Downloads/CommitteeMeetingDocument/284554

Oregon Critical Infrastructure Serving North Portland Industries and Communities

https://historicbridges.org/b_a_list.php?ct=&c=&ptype=county&pname=Multnomah+County,+Oregon

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
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Oregon Critical Infrastructure
Serving Washington County and Coast Communities

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

11 April 2025

What is the impact of these findings on Oregon business Development and state economy?

The predicted and inevitable tectonic megaquake will result in guaranteed infrastructure collapse for 90% of Oregon transport fuels. Bad for business.

Build a boat after the storm? Infrastructure needed in the aftermath of an inevitable Cascadia megaquake is not being prepared to survive:

- Washington State fuels pipeline to the Portland CEI Hub will fail 100%
- The CEI Hub will fail 100% from any M8 or M9 event
- No fuel resupply for Washington County with empty Hub tanker trucks
- Rail bridges for Washington County fuel resupply will fail 100%
  - Of 5 river crossings, 3 are >100 years old, none are seismic compliant
- Washington County cannot provide relief to 160 miles of coastline after seismic destruction followed by 40-100 ft tsunami devastation

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
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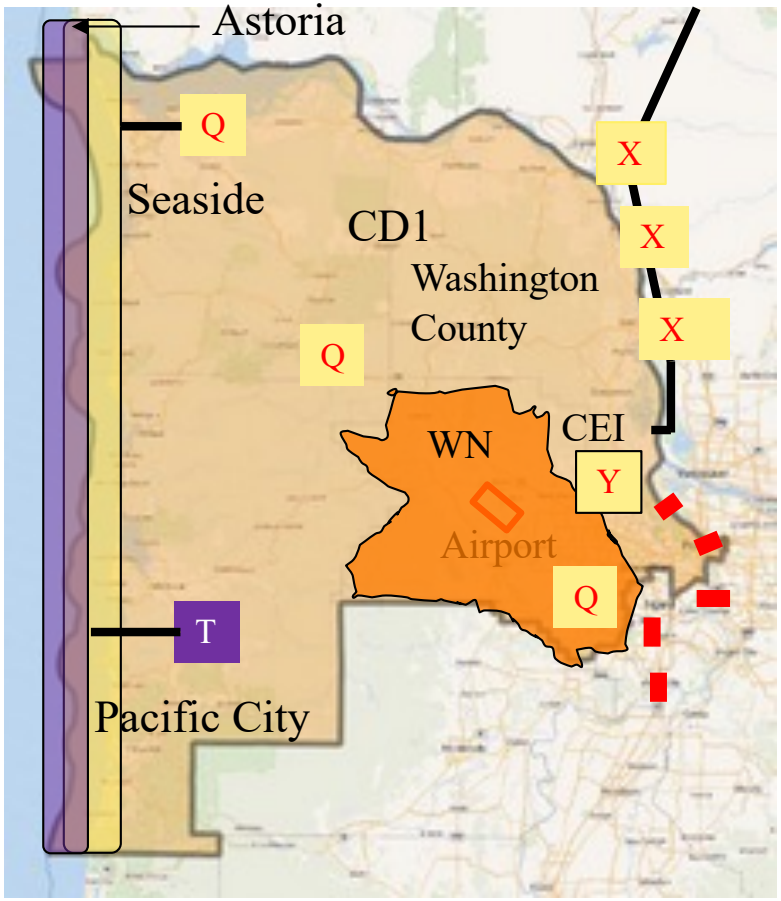
No one is arguing that Washington County is not THE most threatened in Oregon for fuel insecurity. Population 598,000

First Congressional District on Seismic Day Zero – and all at the same time



- ▬ Failed rail bridges preclude fuel delivery
- X Olympic Pipeline failure
  - Strands Oregon
- Y CEI Hub collapse
  - Ends tanker truck logistics to CD1
- Q Quake collapse
  - Closes Columbia at Astoria Bridge
  - Damages coastal infrastructure
  - Extensive coastal road/bridge loss
  - Extensive utility damage
  - Damages Wash Co infrastructure
  - Damages bridges, maybe utilities
- T Tsunami
  - Re-damages coastal infrastructure
  - More coastal road/bridge loss
  - More utility loss

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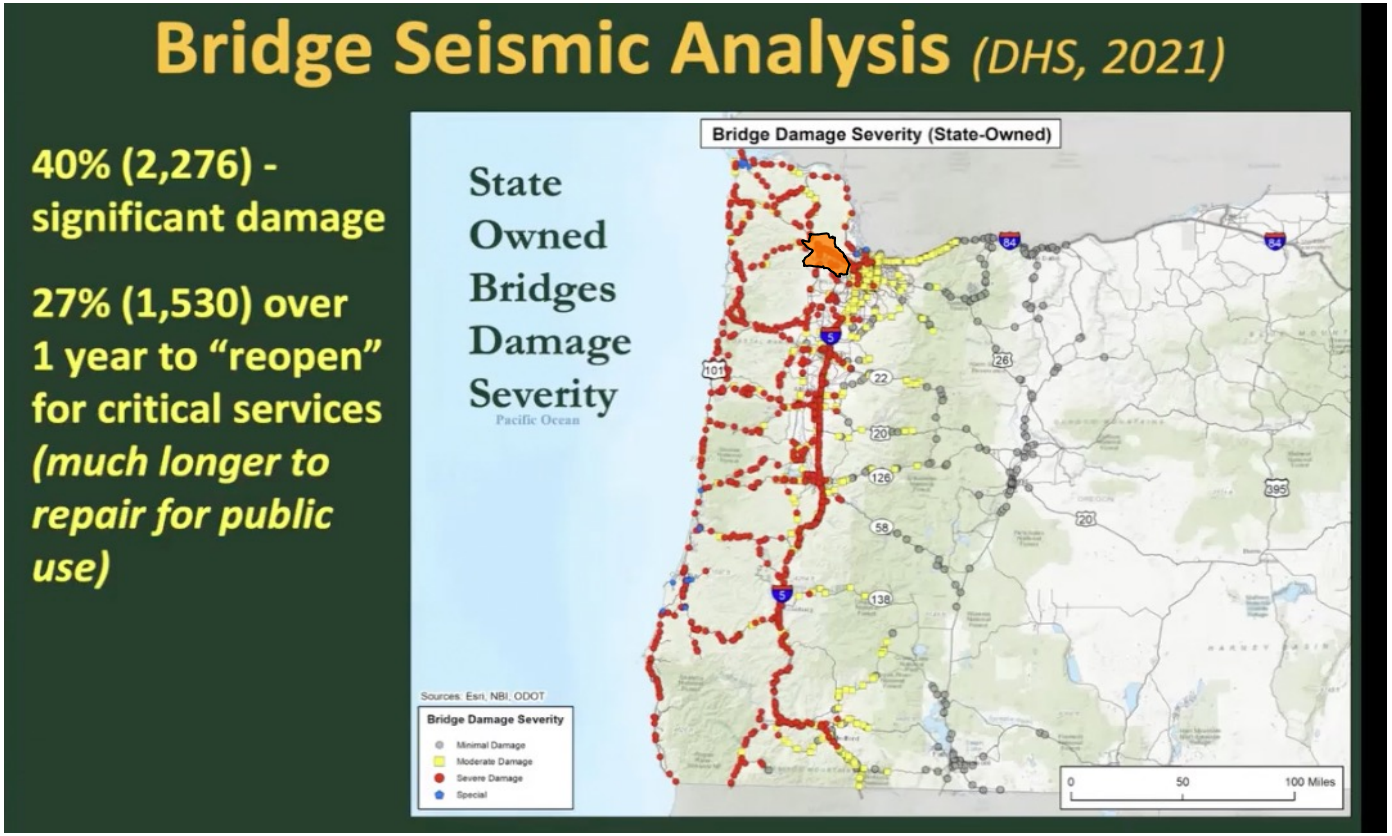
DHS CISA has predicted the coastal conditions and consequences for Washington County highway bridge and overpass damage.

Argonne National Lab (CISA), Modeled 9.0



https://publications.anl.gov/anlpubs/2021/09/170001.pdf

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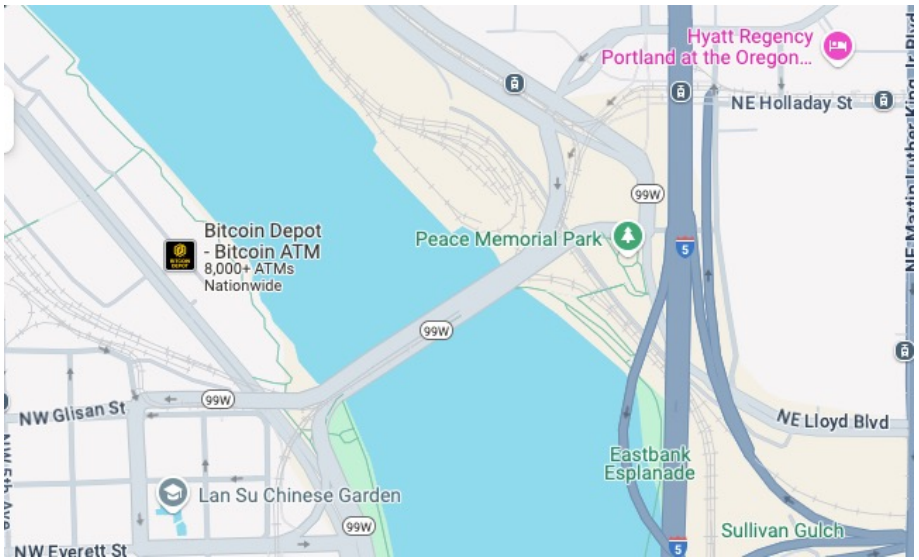
Portland Steel Bridge
Freight rail lower deck



1912
Union Pacific
Cascadia threat discovered 2010
New approaches 1950
Age in 2024: 112 yrs
What are the retrofits?
No plan

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– HB 2749

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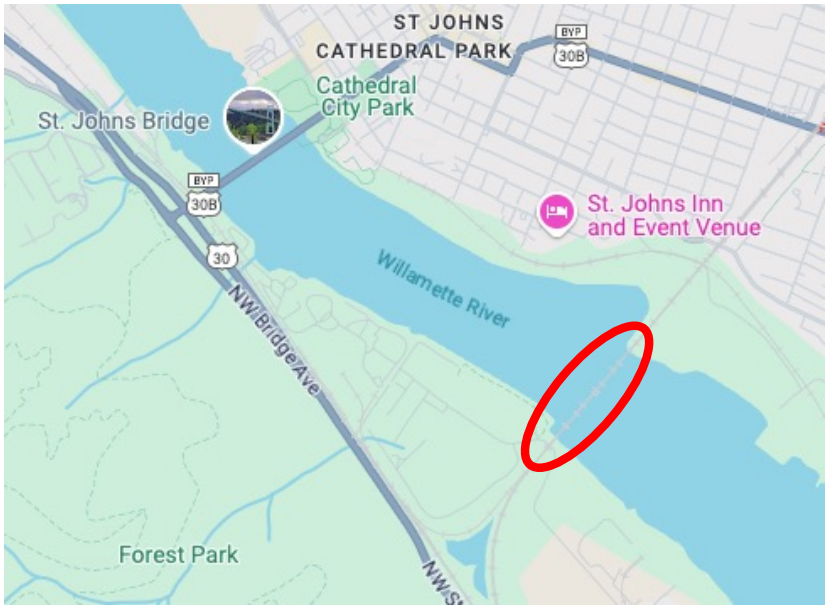
BNSF Railway Bridge 5.1
St. Johns



Silver spans - 1908
Weathered rust – 1989
Cascadia threat discovered 2010
For approaches, age in 2024: 116 yrs
What are the retrofits?
No plan

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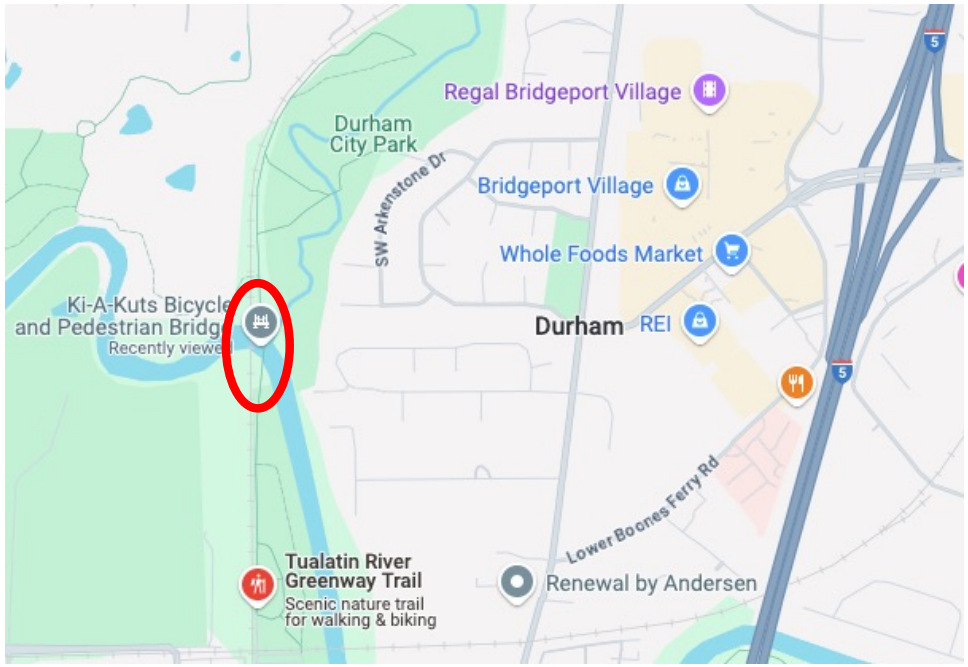
Tualatin Railroad Bridge – Milepost 35.3



Prior to 1968
Portland and Western Railroad (PNWR)
Garden Home to Wilsonville Bridge
- Tualatin River
Cascadia threat discovered 2010
Age in 2024: at least 56 yrs
What are the retrofits?
No plan

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Willamette Rail Bridge - Wilsonville

1975
Portland and Western Railroad (PNWR)
Cascadia threat discovered 2010
Age in 2024: 49 years
What are the retrofits?
No plan

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Oak Grove – Lake Oswego
Railroad Bridge

1910
Portland and Western Railroad (PNWR)
Cascadia threat discovered 2010
Age in 2024: 114 yrs
What are the retrofits?
No plan

PNWR acquired by Genesee and Wyoming (GW) in 1995

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
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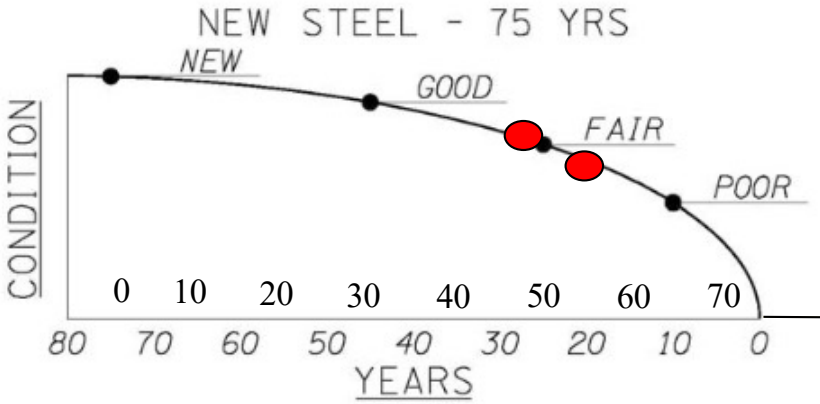
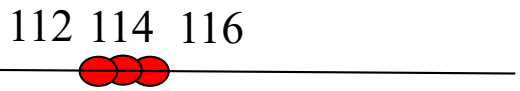
OREGON RAIL BRIDGE ASSESSMENTS FINAL REPORT OF STUDY FINDINGS

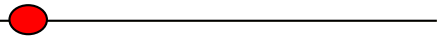


BNSF St. John's approaches: 116
UP Steel: 112
Tualatin MP 35.3: 56 +?
Wilsonville: 49
Lake Oswego: 114



Note: None of these bridges seem to be designed for seismic compliance

Lake Oswego approaches: 114



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Alternate Fuel Sources to Oregon

11 April 2025

Priority for Salem Ways and Means

- Infrastructure rebuild costs after the fact are at least 10x the cost of mitigation
- Waiting for post-event investment is a known inflation driver

National Institute of BUILDING SCIENCES™

	ADOPT CODE	ABOVE CODE	BUILDING RETROFIT	LIFELINE RETROFIT	FEDERAL GRANTS
Overall Benefit-Cost Ratio	11:1	4:1	4:1	4:1	6:1
Cost ($ billion)	$1/year	$4/year	$520	$0.6	$27
Benefit ($ billion)	$13/year	$16/year	$2200	$2.5	$160
Riverine Flood	6:1	5:1	6:1	8:1	7:1
Hurricane Surge	not applicable	7:1	not applicable	not applicable	not applicable
Wind	10:1	5:1	6:1	7:1	5:1
Earthquake	12:1	4:1	13:1	3:1	3:1
Wildland-Urban Interface Fire	not applicable	4:1	2:1	not applicable	3:1

TABLE 1. Nationwide average benefit-cost ratio by hazard and mitigation measure. BCRs can vary geographically and can be much higher in some places. Find more details in the report.

https://www.nibs.org/files/pdfs/ms_v3_adopts_earthquake.pdf

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Post-Cascadia megaquake chaos multiplier		x10
NP Egress Bridges		
PBOT Columbia Overpasses:	$58M	$580M
BNSF Fessenden Steel:	$37M	$370M
BNSF Lombard Steel:	$37M	$370M
BNSF Willamette Steel:	$37M	$370M
CD1 Fuel Security Bridges		
Portland "Steel Bridge" est*	$900M	$9,000M
BNSF Bridge 5.1 est*	$900M	$9,000M
PNWR Tualatin	$40M	$400M
PNWR Willamette	$40M	$400M
PNWR Oak Grove-Oswego	$40M	$400M
	$2,089M	$20,890M
	$2.1B	$21B
Annual Federal petro subsidies	$20.0B	

* Burnside Mechanical Bridge replacement estimate is $900M, 5 years

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The likelihood of the Cascadia megaquake factors into Oregon bond ratings: more risk means more debt service cost. Oregon and Washington policymakers have adopted the 50-year risk math employed in civil engineering as design-to standards for bridges, buildings, other infrastructure projects that are designed for 50-year lifetimes.

As a way to assure public safety ? - Not a great idea. To protect the public, we get a better idea of risk by looking at the 10,000-year Cascadia history and seeing what it means, starting with the last such event in 1700. The average event repeat interval is 246 years. This means the risk was 50/50 in 1946 – and higher today.

It is easy enough to check off all the historical repeat intervals that have already been exceeded by the quiet time since 1700. The total number of those exceeded in 2018 is 83%. This in not statistical math. It is middle school math.

If you run a time-sensitive lognormal model, you get similar numbers. Not good for bonds. Employing this math (80% chance of default) would not be very popular. It is not however refutable.

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION
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Every day, the unacknowledged extremely high risk of sudden critical infrastructure collapse increases.

- No need to prove this
- There is an urgent compelling demand to disprove it, if you can

Insurance actuaries studied climate change, no action.

- After predictable wildfires they suddenly suspended new coverage, cancelled existing contracts.

Insurers and reinsurers will expertly tell you what's happening after it happens. Time to wise up.

Every day is a bet Oregon cannot afford.

BEFORE THE JOINT COMMITTEE ON TRANSPORTATION – HB 2749

11 April 2025

Our testimony to the House Emergency Management Committee supporting many of their infrastructure bills has not been acknowledged or acted on. Example: https://olis.oregonlegislature.gov/liz/2025R1/Downloads/PublicTestimonyDocument/134265

We believe HB 2749 is an example of another emergency bill that is on a death march to W&M (no possibility of federal funding). Expanding it to save Washington County and the coast is absolutely critical, and it would have no chance with W&M.

Q: Who in the US Executive Branch as 6 bankruptcies and believes all FEMA disaster claims can be carried by the States who by law must report balanced budgets?
Q: Is bankruptcy the new pandemic?

What is the Ways and Means survival plan considering the physical and financial stranding of Washington County and the coast before and after Cascadia M8 ?

Respectfully, Tracy Farwell, HD-46, Sustainability Desk, Better Energy LLC