

# Integrating Science, Biomass and Carbon Policy in the Pacific Northwest

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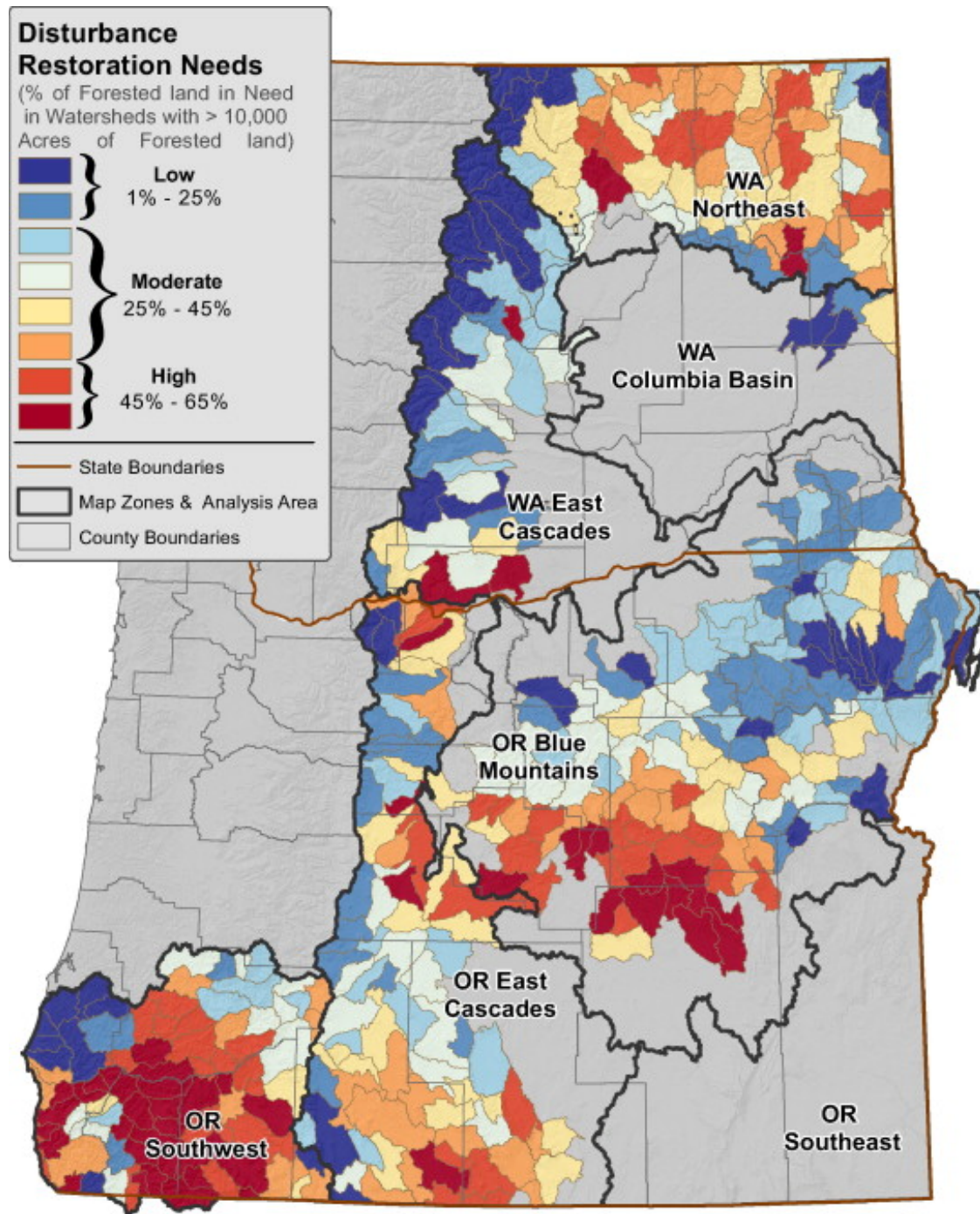


# Policy Drivers

- ▶ Abundant forests that deliver broad range of societal benefits
- ▶ Important and diverse forest products and biomass energy industries
- ▶ Rising costs of fighting wildfires
  - ▶ Net costs of \$94.4 mil in 2015
  - ▶ Over 1000 fires, largest 110,000 acres
- ▶ Broad scale need for forest restoration
  - ▶ 9.5 mil acres need treatment according to TNC

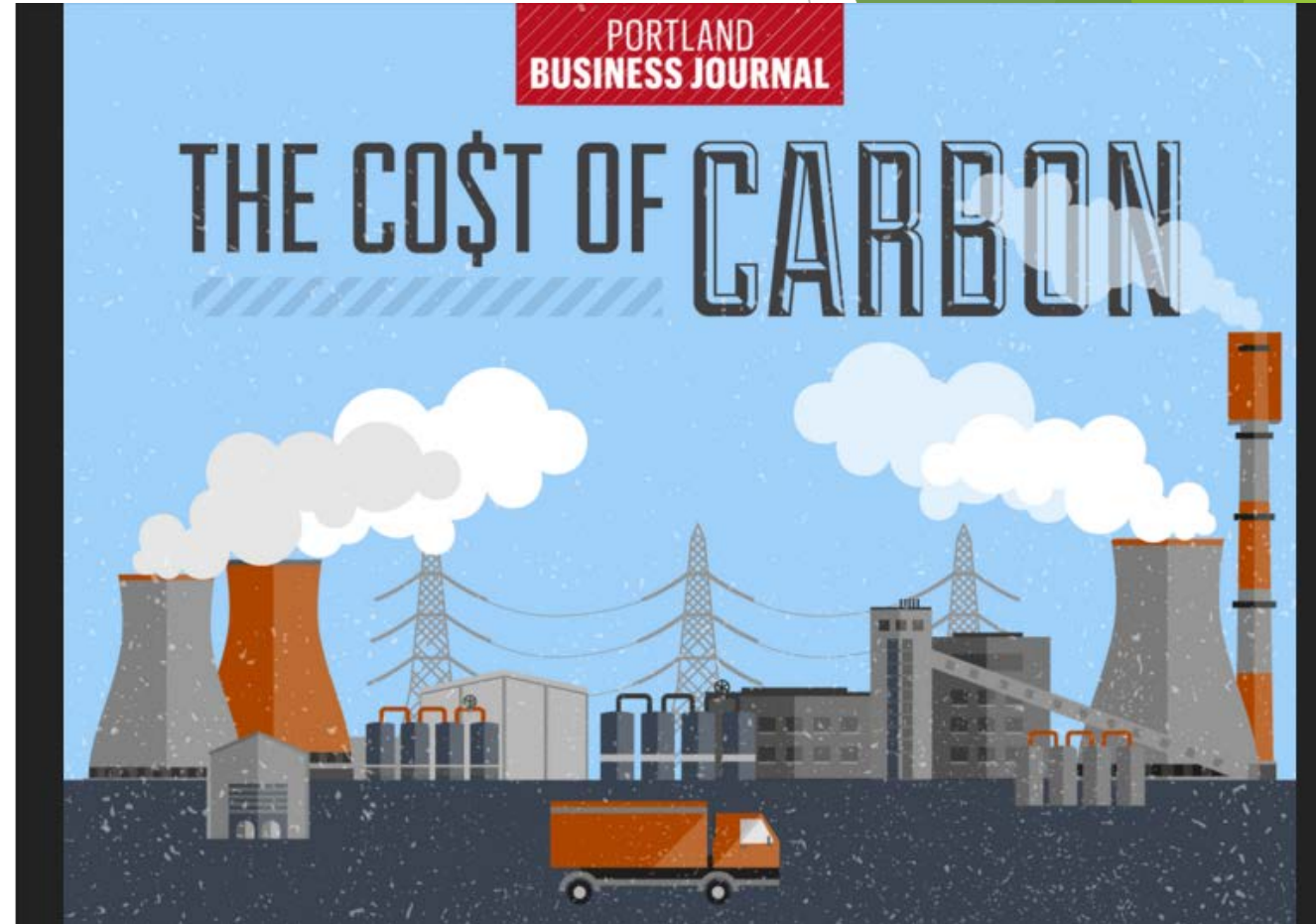


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# Policy connections

- ▶ Oregon to be coal-free by 2035
  - ▶ First state in the country to ban coal via legislation
- ▶ Aggressive RPS targets
  - ▶ 50% renewables (including biomass ) by 2040
  - ▶ Biomass to electric and biomass thermal eligible
  - ▶ Currently 25% by 2025
- ▶ Carbon cap and trade bill introduced
  - ▶ Currently being studied
  - ▶ Carbon mitigation could include forest acquisition, restoration, bio-energy





“We become aware of the void as we fill it.”

--Antonio Porchia 1885-1968



# An integrated approach to biomass and carbon

- ▶ Partner with sister agencies (DEQ, ODOE, PUC) to recommend how to integrate biomass into carbon-beneficial energy generation
- ▶ Enlist best minds and available data to understand limitations and opportunities
- ▶ Take a feedstock approach consistent with Oregon's forests
  - ▶ forest slash
  - ▶ small diameter round wood
  - ▶ mill residuals



# Oregon's approach continued

- ▶ Partner with academics involved in Northwest Advanced Renewables Alliance (NARA) to run initial models using forest inventory analysis plots (FIA)
- ▶ Build scenarios based on feedstock availability, expected harvest levels, forest products manufacturing, etc.
- ▶ Identical approach being applied in Washington state
  - ▶ Efficiencies and economy of scale



# Modeling parameters (caution)

- ▶ A long run intertemporal optimization model of softwood log markets
  - ▶ Evaluates demand from mills with supply from forests and tracks over time
- ▶ A short run dynamic recursive model
- ▶ Creates a carbon projection
- ▶ Identify impact of proposed uses on baseline





# Oregon's approach—integrate science and public engagement

- ▶ Data-driven feedstock analysis to build scenarios
- ▶ Stakeholder engagement efforts
  - ▶ Provide a space for dialogue and shared understanding
- ▶ Identify practical monitoring, evaluation & verification scheme
- ▶ Deliverables: set of recommendations to sister agencies regarding “qualifying feedstocks”



# What's at stake?

## -the power of precedent

- ▶ Lower carbon content of energy and support forest restoration
- ▶ Opportunity evaluate carbon-neutrality at state and regional levels
- ▶ Lays the ground work for regional market systems
- ▶ Sets the foundation for informed state cap and trade policy



# Thanks!

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