Northwest **Power** and **Conservation** Council

September 28, 2022

MEMORANDUM

TO: **Fish & Wildlife Committee**

FROM: **Cathy P. Kellon, Oregon Fish and Wildlife Policy Analyst**

SUBJECT: **Emerald Ash Borer arrives in Oregon**

BACKGROUND:

Presenter: Chris Benemann, Interim Director, Plant Protection and Conservation Programs, Oregon Department of Agriculture

Summary: Chris Benemann will share information on the invasive, non-native emerald ash borer (EAB) beetle; the relevance of its discovery in Oregon three months ago; and the evolving response by natural resource managers. First found in Michigan in 2002, the EAB is now considered the most destructive and costliest tree insect pest to have been introduced to North America. EAB infestations cannot be prevented or eradicated with current management tools so Pacific Northwest natural resource agencies and tribes are focused on slowing its spread and reducing damages to fish, plant, and wildlife habitat, especially west of the Cascades where most Oregon ash grows, the only native ash tree species in the Pacific Northwest.

Relevance: The areas of the Columbia River basin that are at highest risk to EAB are the Willamette Valley, lower Columbia River, and southwestern Washington, where dense stands of native Oregon ash line valley bottoms and streams, providing critical habitat for listed fish, insect, plant, and wildlife species. The Council's 2014 Fish and Wildlife Program recognizes the imperative to protect and enhance ecological function in Strategy A, "Ecosystem function" and in sub-strategy 3 to, "Prevent the introduction of non-native and invasive species in the Columbia River Basin, and suppress or eradicate non-native and invasive species."

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Background: On June 30, 2022, the emerald ash borer (EAB) was discovered in Forest Grove, Oregon, making it the first confirmed sighting of this invasive beetle on the west coast. Native to Asia, the emerald ash borer's larvae burrow under the bark of ash trees to eat the sapwood, gradually killing the host tree. In the twenty years since the beetle's arrival in North America it has spread to 36 states and five Canadian provinces, killing hundreds of millions of ash trees.

There are over a dozen ash tree species native to North America but most ash in urban and residential areas were introduced as ornamentals. The single ash species that is native to the Pacific Northwest (PNW) is the Oregon ash *(Fraxinus latifolia*), which plays an important ecological role throughout its range in lower elevation riparian areas and wetlands west of the Cascades. The most vulnerable areas to EAB in the Columbia River basin are the Willamette Valley, lower Columbia River, and southwestern Washington, where dense stands of Oregon ash line valley bottoms and streams. In fact, large riparian restoration projects on the "west side" have historically included ash plantings and in wetter parts of the Willamette Valley, Oregon ash is the dominant tree species.

Currently there are no means to prevent or eradicate EAB infestations, only to slow its spread and mitigate damage. Experts anticipate that most ash trees in an area where EAB arrives will be dead or dying within the decade. The beetle's establishment in the PNW has the potential to transform the landscape, not only because of ash's ubiquity but also because Oregon ash provides direct and indirect ecosystem benefits for so many species of concern.

The loss of Oregon ash in riparian zones will degrade critical aquatic habitat for Endangered Species Act listed Upper Willamette steelhead and Upper Willamette and Lower Columbia chinook and coho, among other aquatic species. Widespread Oregon ash mortality will diminish forested habitat that is vital for listed insect and plant species, as well as birds and wildlife, like the Columbian White-tailed Deer.

In anticipation of EAB's arrival, Oregon published a coordinated, inter-agency response plan in 2021 that relies on a combination of measures including monitoring, education, banking native Oregon ash seed, and rapid response to EAB detections by removing infected trees and establishing quarantines.

More Info:

- Oregon's EAB Readiness and Response Plan
- Oregon State University's EAB resources list
- EAB Information Network with links to state-by-state resources
- NPCC Fish and Wildlife Program 2014 Program (see esp., pp.38-48)