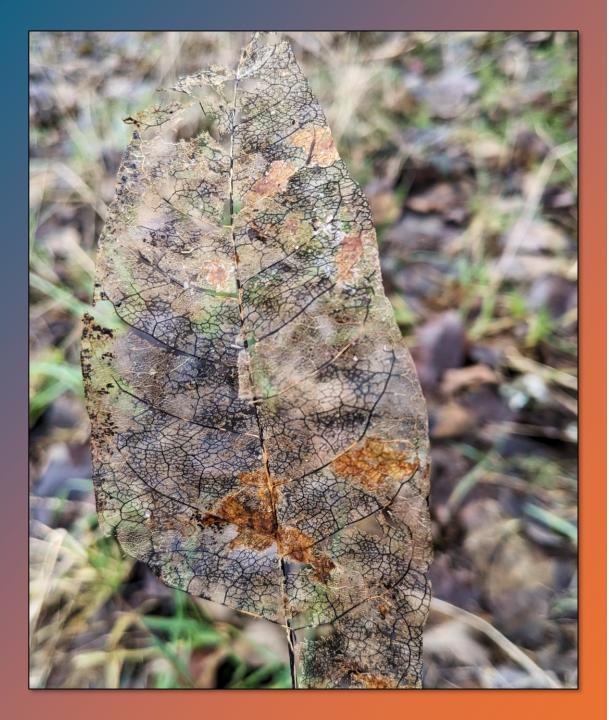


Seeing the Forest for the Trees:

Habitat Restoration in the Emerald Ash Borer Era

Kari Dupler, PWS SWS-PNW Chapter Conference



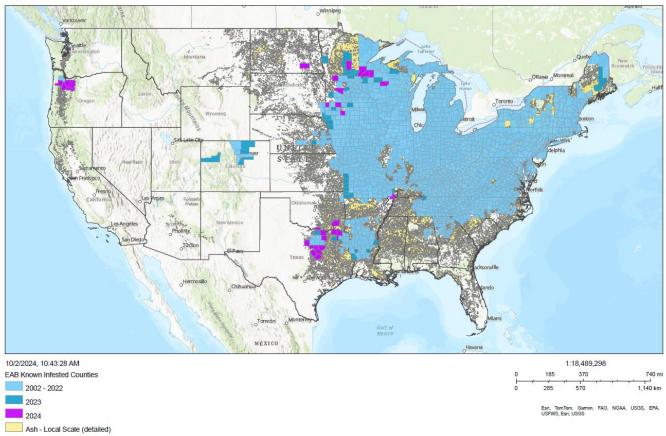


- Ash in the PNW
- Long-term Impacts
- Planting Alternatives
- Restoration Planning



#### Emerald Ash Borer Beetle Known Infested Counties

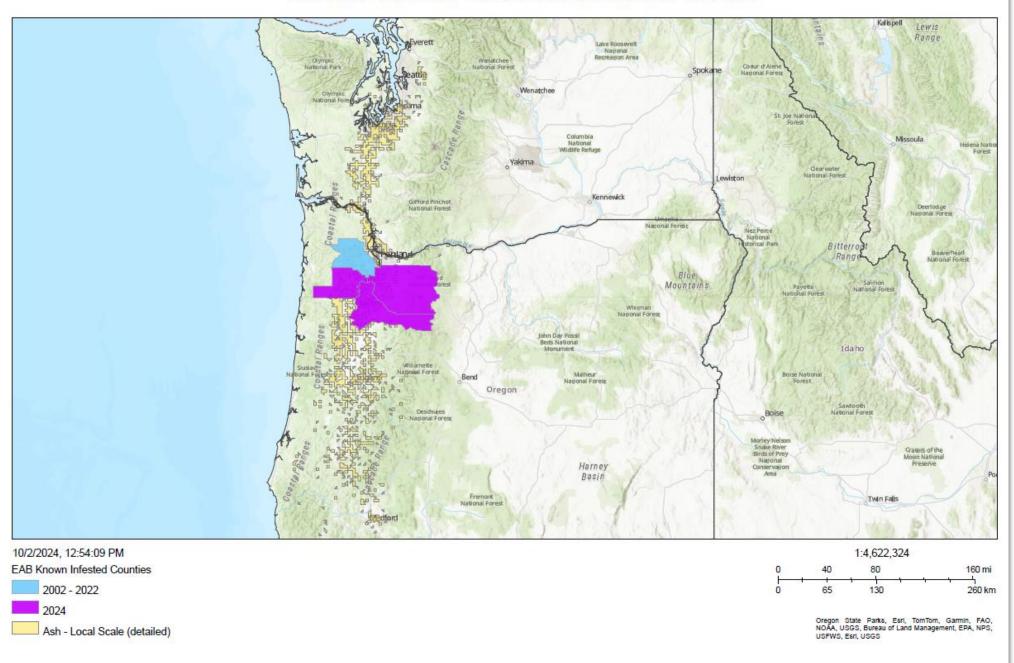




USDA APHIS PPQ
Esri, USGS | Missouri DNR, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, USFWS | Sources: Esri; U.S. Department of Commerce, Census Bureau; U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), National Geodetic Survey (NGS)



#### Emerald Ash Borer Beetle Known Infested OR WA





#### Ash Contributions

Habitat

Nutrients

Culturally Important



#### Ash Contributions

Habitat

Nutrients

Culturally Important



#### Ash Contributions

Habitat

Nutrients

Culturally Important





### Impacts of Longterm Ash Loss

Habitat Shifts

Ecological Processes





## Impacts of Longterm Ash Loss

Habitat Shifts

Ecological Processes



# Restoration Planning

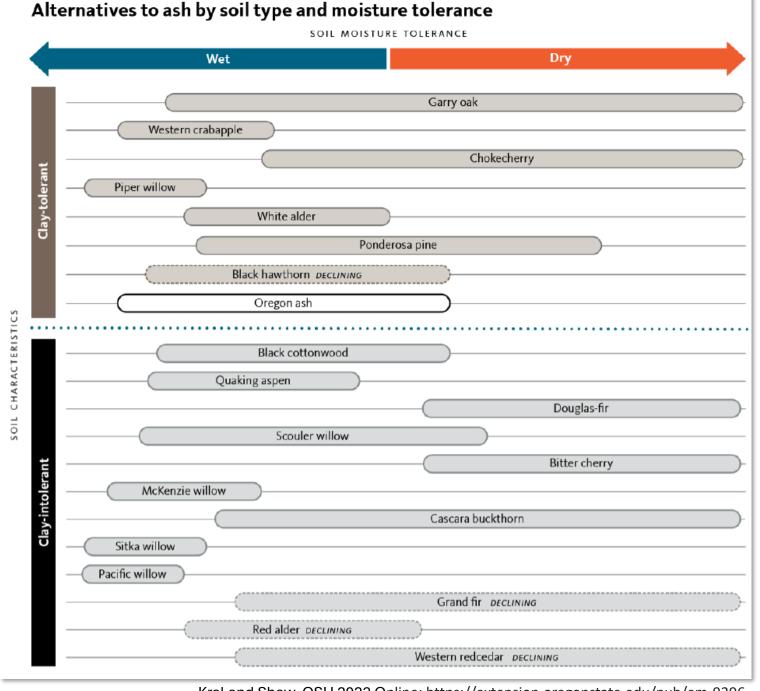
Ash Alternatives





# Restoration Planning

#### Ash Alternatives





# Restoration Planning

**Ecological Interactions** 





# Restoration Planning

Site Management





To plant or not to plant...









Questions or Comments?

Kdupler@estuarypartnership.org

