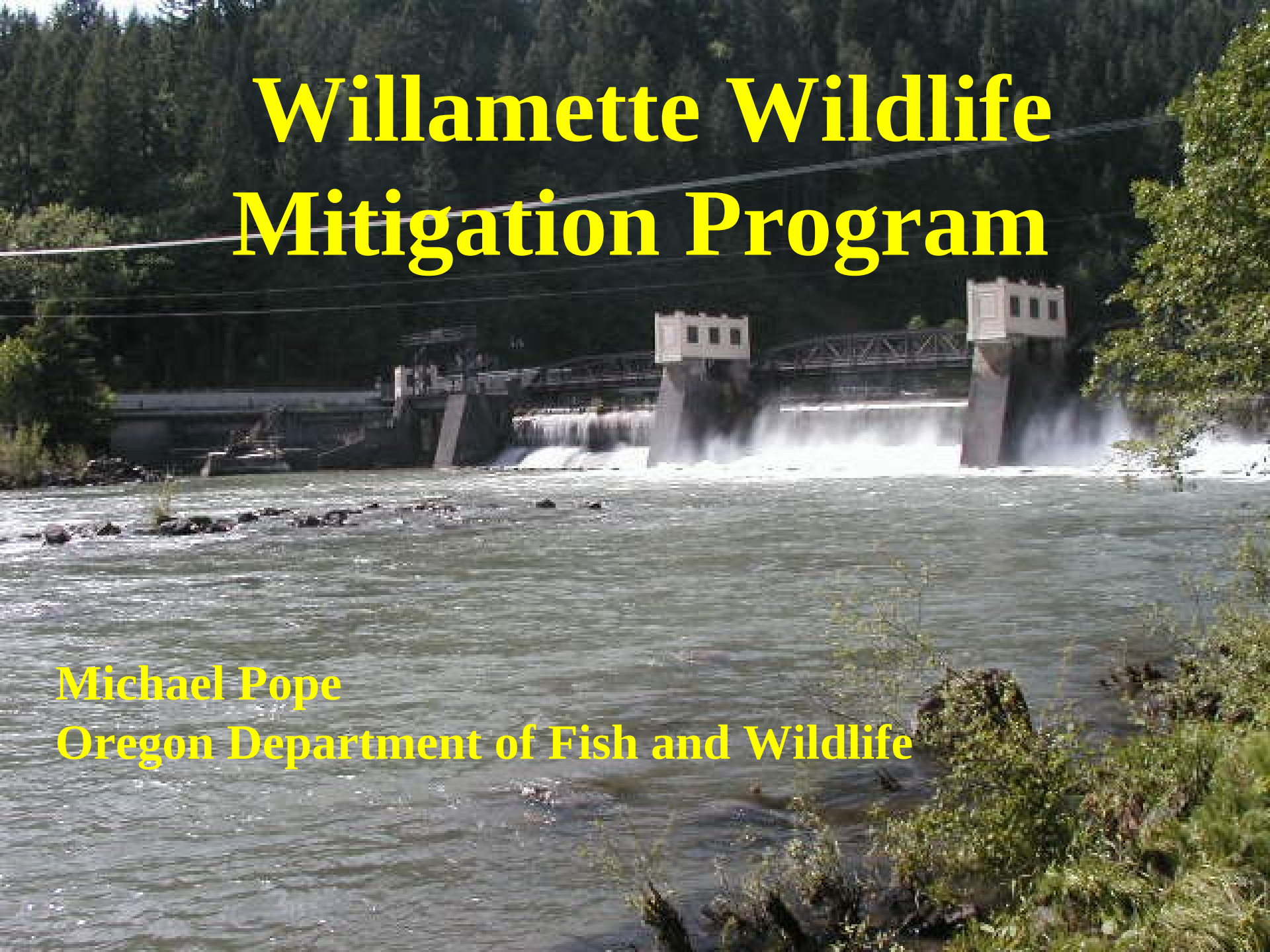
Willamette Wildlife Mitigation Program

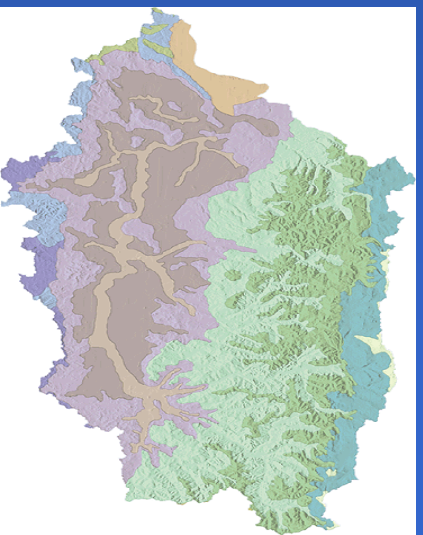


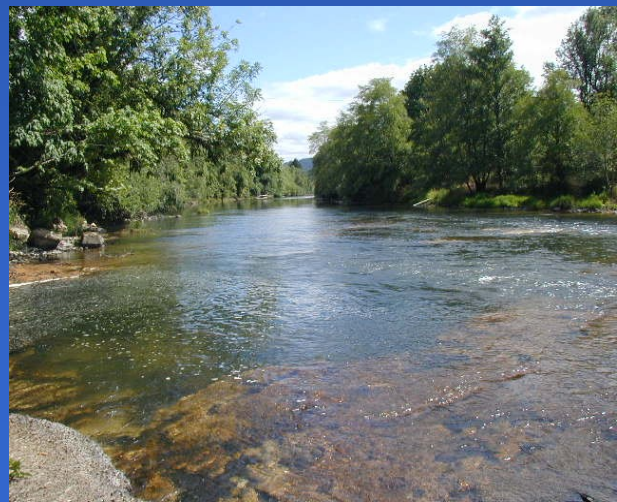
Michael Pope
Oregon Department of Fish and Wildlife

Willamette River

Historic Condition

- Complex braided channels
- Islands
- Wide, diverse flood plains
- Extensive bottomland forest, wet prairies, wetlands/riparian areas

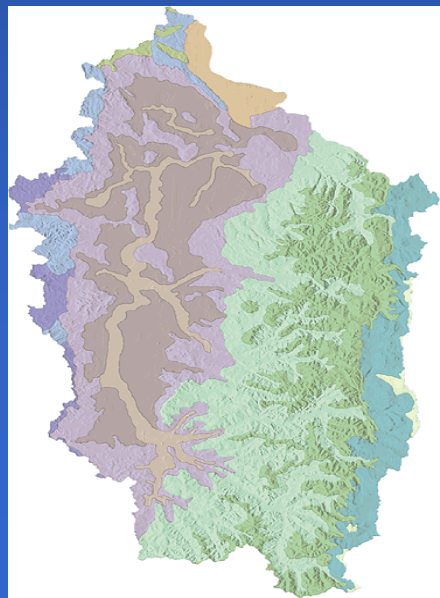




Willamette Subbasin

Changes Historic Condition

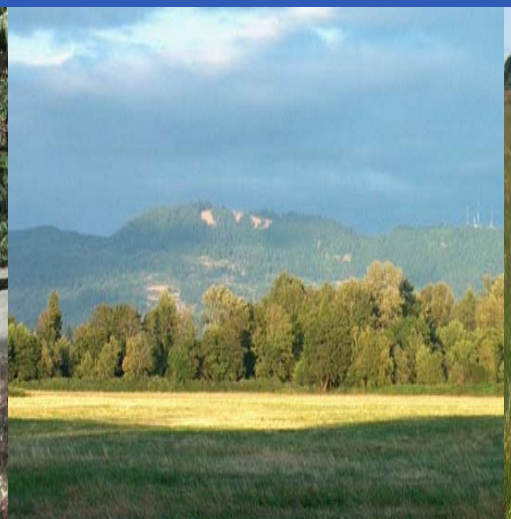
- Total area of river channels and islands decrease by 50% (1850 to 1995)
- Length decreased from 355 to 264 miles
- 30% decline in small floodplains along tributaries-70% decline of islands in tributaries
- Bottom line: loss of diversity and complexity



Willamette Subbasin

Focal Habitats-Current Status

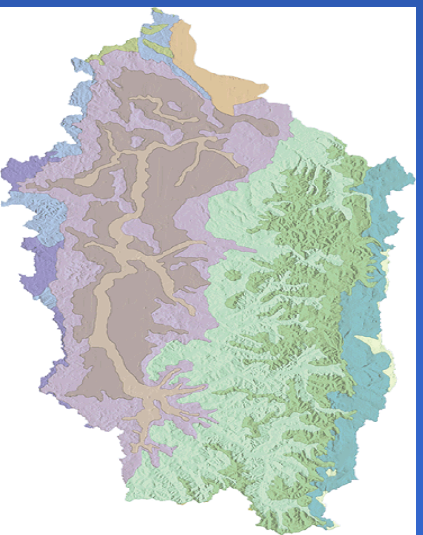
- Oak Woodlands-7%
- Upland Prairies-1%
- Wetland Prairies-2%
- Riparian Areas-30%

Willamette Subbasin

Demographics

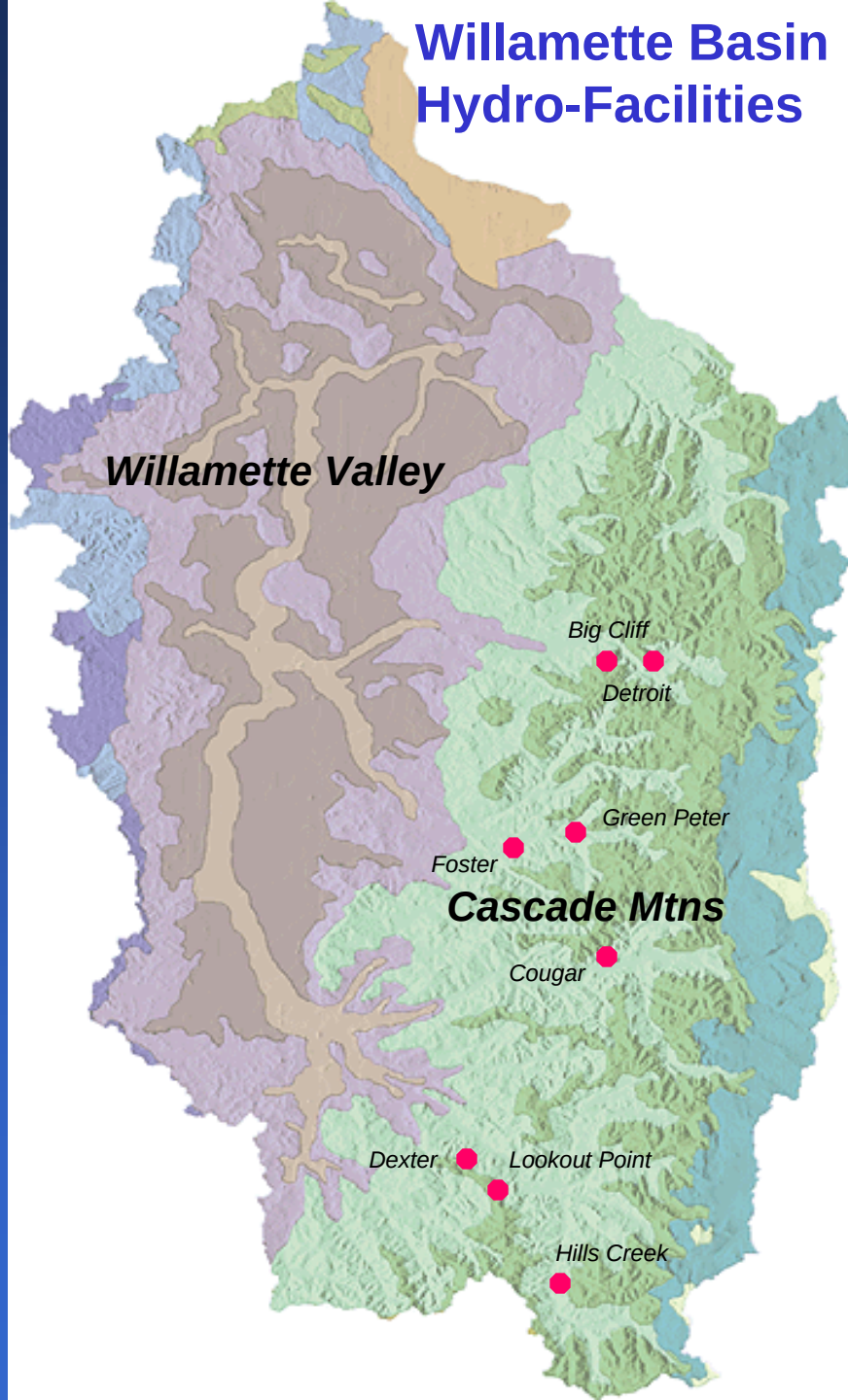
- Fastest growing-68% of state population-4 million by 2050
- 97% private land
- Land use conversion: suburban developments and habitat loss
- Land matrix: small parcels with high value



Willamette Subbasin Plan
Conservation Focus

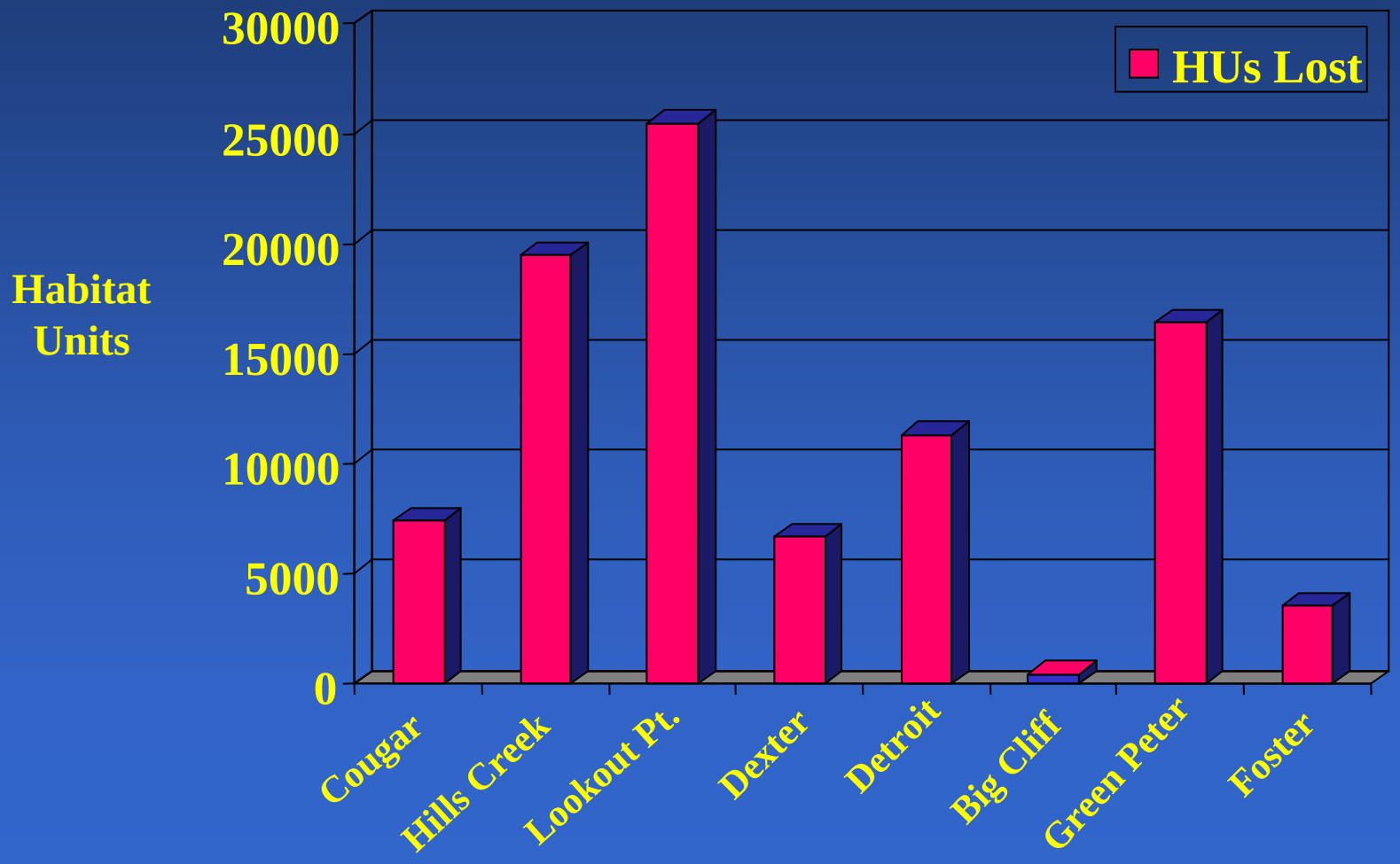
Section 5.2.2.3-

"Willamette Valley has lost 80% of its bottomland forests, 97% of it natural grasslands, and nearly 100% of its oak savanna. <u>Restoration efforts should now focus on these valley and hillside habitats</u> to benefit the unique and sometimes rare wildlife species that live there."



Impact Assessment Results

Willamette River Dams-94,306 HU



Guiding Documents

- NPCC Fish and Wildlife Program
- Willamette Subbasin Plan
- Oregon Conservation Strategy
- Willamette Biological Opinion

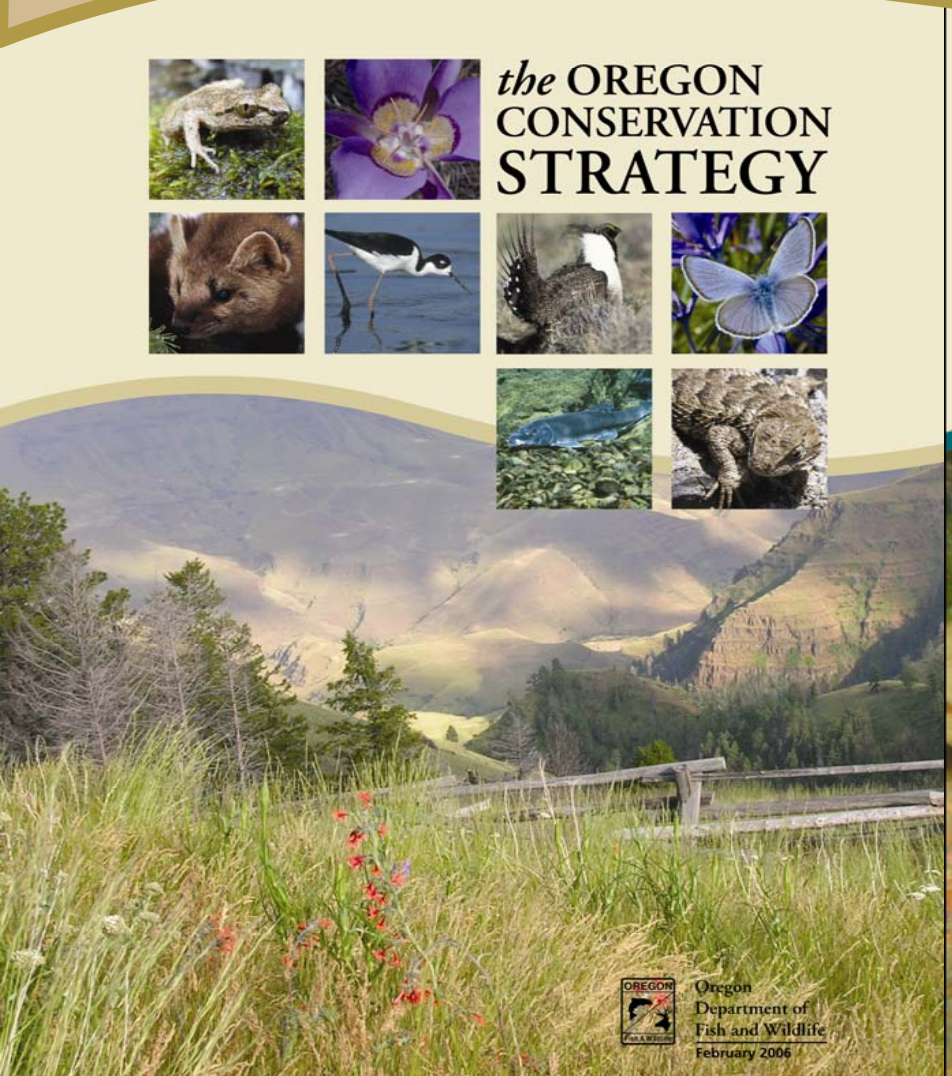
The Oregon Conservation Strategy -

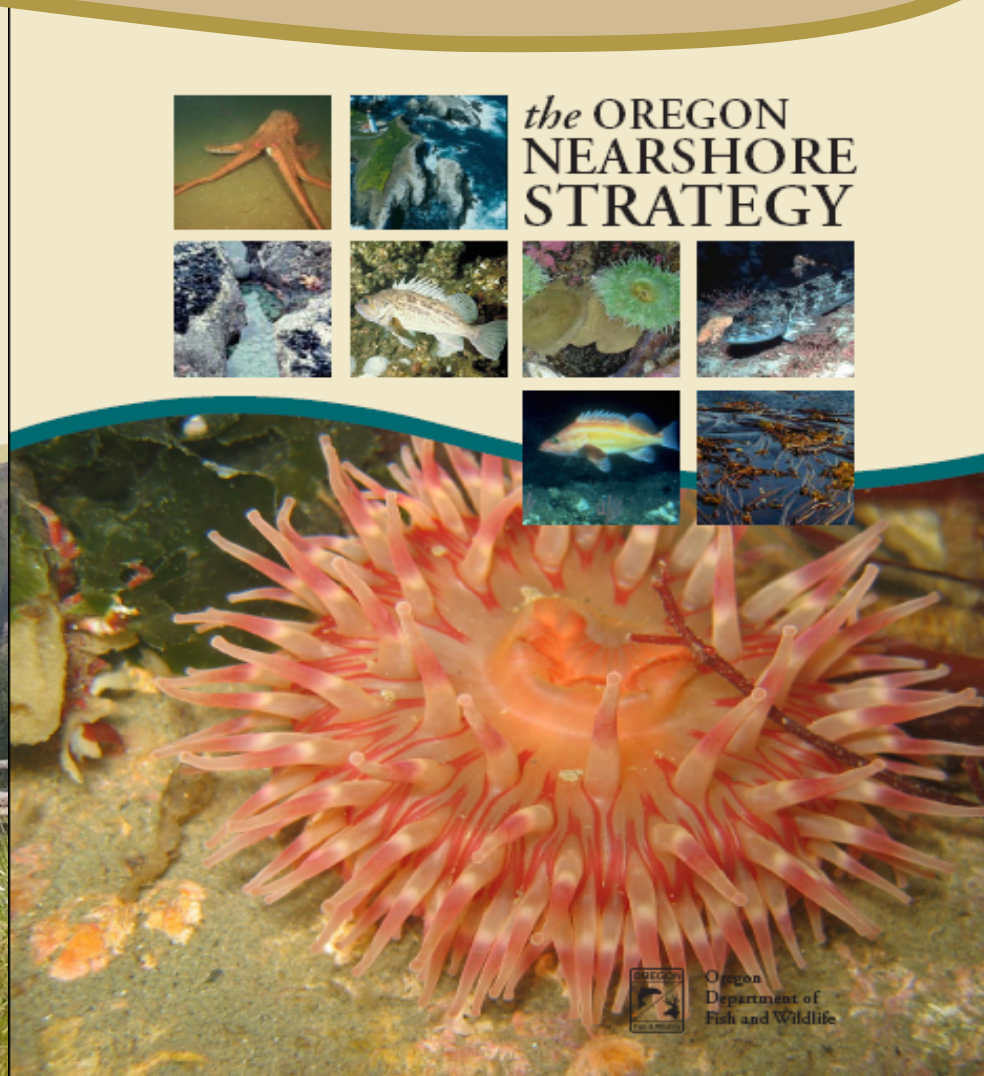
healthy habitats for wildlife and people

OREGON

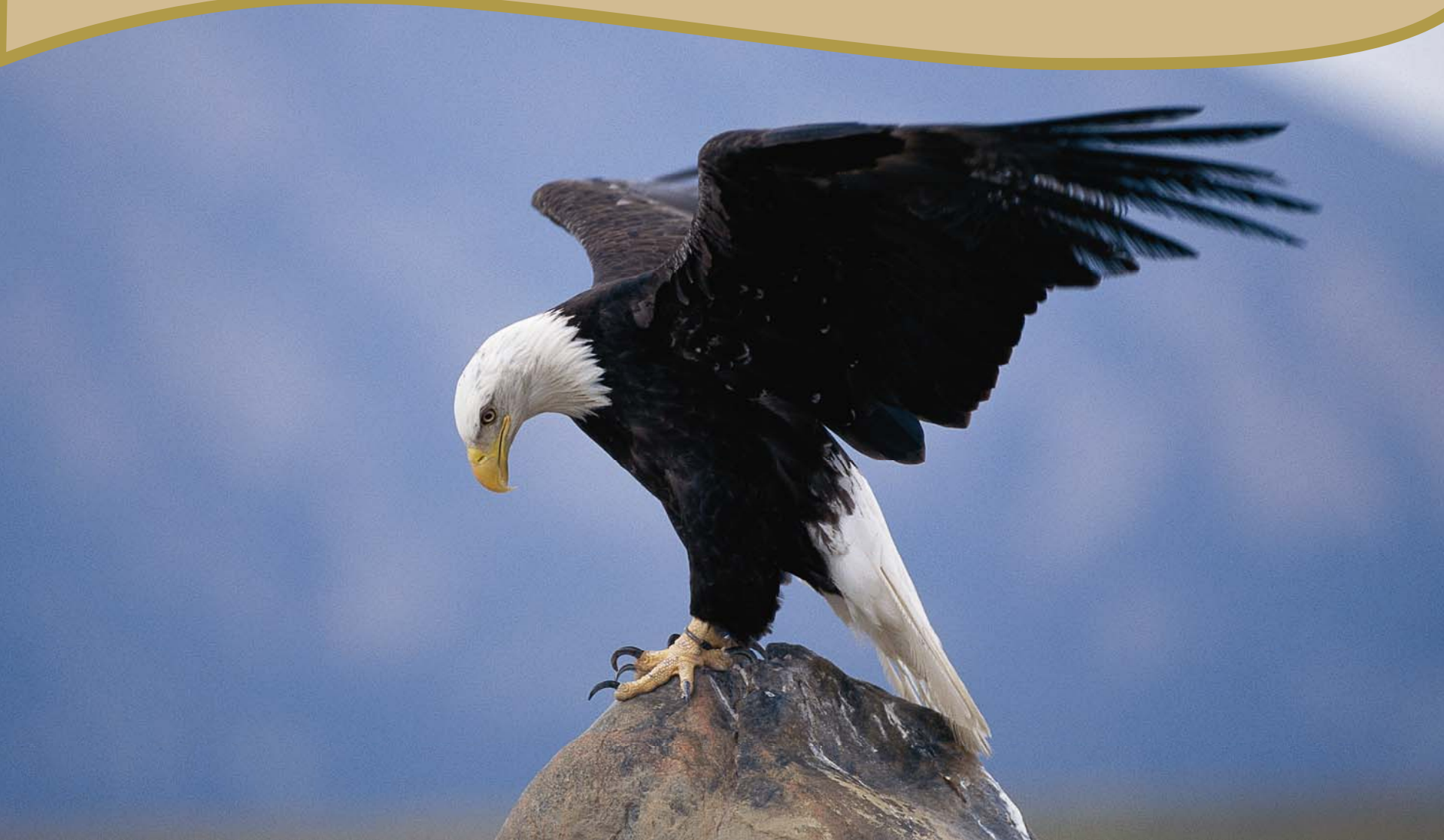
Fish & Wildlife

Comprehensive Statewide Strategy



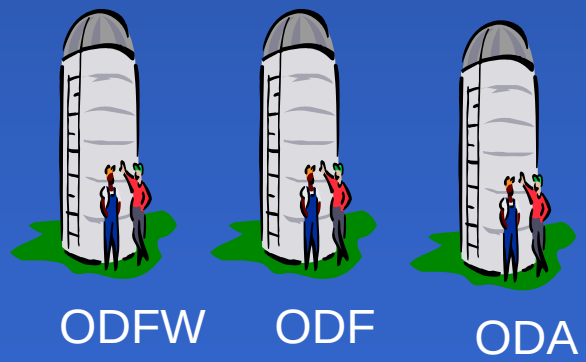


Linked to Unprecedented National Effort



Includes Wildlife, Fish, Plants, Amphibians and Invertebrates

Six Key Conservation Issues



8 Ecoregions

11 Strategy Habitats

286 Strategy Species

Conservation Opportunity Areas

llamette Valley Ecoregion
nservation Opportunity Areas

LEGEND

- Conservation Opportunity Area
- Highway
- Rivers
- Water body

Land Ownership

- Federal
- Private
- State
- County

0 4 8 16 24 32 Miles

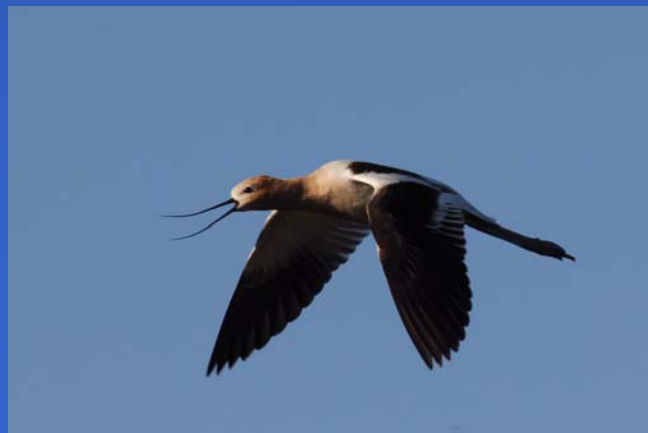
Energy Development and Impacts on Wildlife

Allocation of Water Resources and Impacts to Aquatic Species and Floodplain Functions

Impacts of Climate Change on Oregon's Species and Habitats

Willamette Model

- **Partnerships and Collaborations**
  - The Nature Conservancy
  - Greenbelt Landtrust
  - Trust for Public Lands
  - USACOE
  - USFWS
  - McKenzie River Trust
  - Friends of Buford Park
  - City of Corvallis
  - Trout Mountain Forestry
  - Middle Fork Willamette Watershed Council
  - Northwest Habitat Institute
  - Zena Timber
  - Willamette University
  - Willamette Partnership
  - University of Washington/Montana
  - Oregon State University
  - Bonneville Power Administration
  - Oregon Department of Forestry
  - Scientific Certification Systems



Willamette Model

- **Conservation Aggregations**
  - **a) Strategic Focus of Investments**
  - **b) Provide Habitat Complexity**
  - **c) Cost/share and Partnerships**



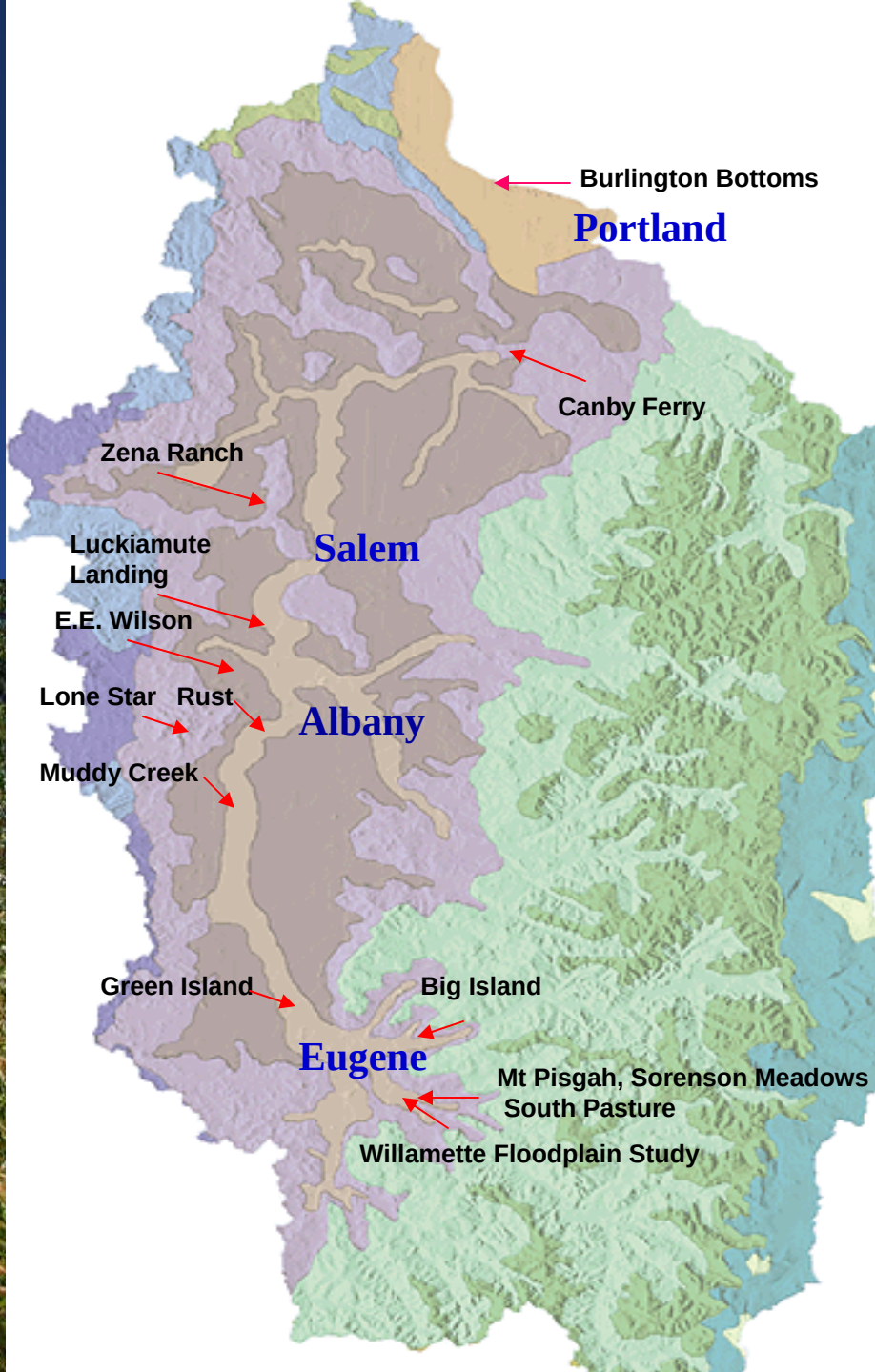
Willamette Model

- **Conservation Opportunity Areas**
  - **Confluence sites**
  - **Areas contain ecologically valuable species/habitats**
  - **Aggregations of protected areas**

Willamette Model

- **Flexible and Opportunistic**
  - **Working Landscapes**
  - **Easements/Fee Title**
  - **Cost/Share**

Willamette Subbasin Mitigation Projects



2007-2009: Over 2000 Additional Acres in the Willamette Basin are Permanently Protected

On-the-Ground Restoration on 2500 Acres

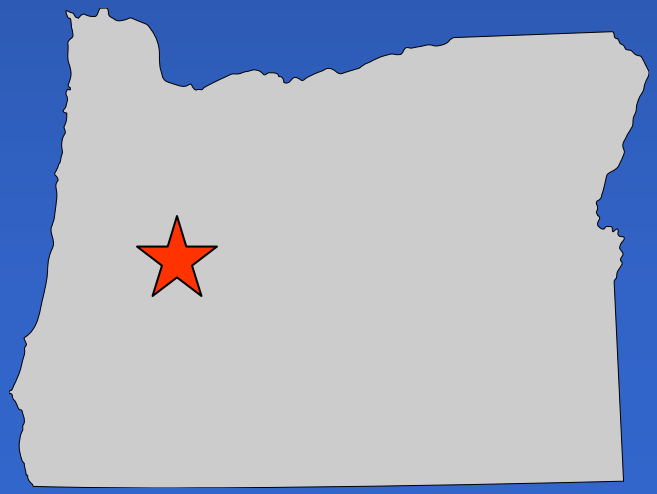
Willamette Subbasin Mitigation Projects

Mt Pisgah

Mt Pisgah/Buford Park

1000+ acres

Habitat Types:
Riparian/Riverine
Wet/Upland Prairie
Oak Woodland

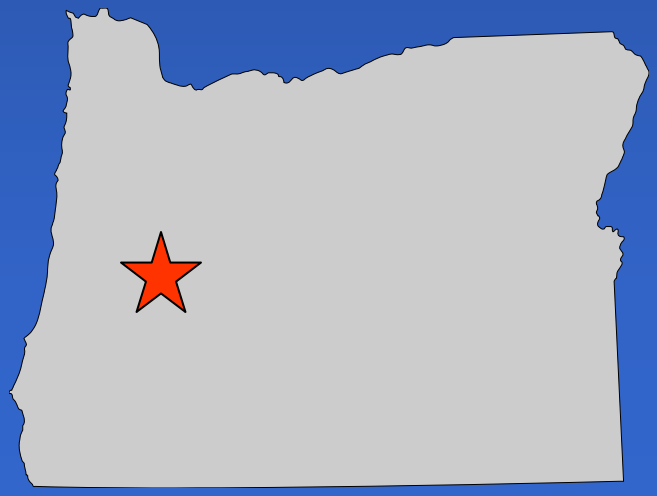


Willamette Floodplain Restoration Study

Coast and Middle Forks Willamette

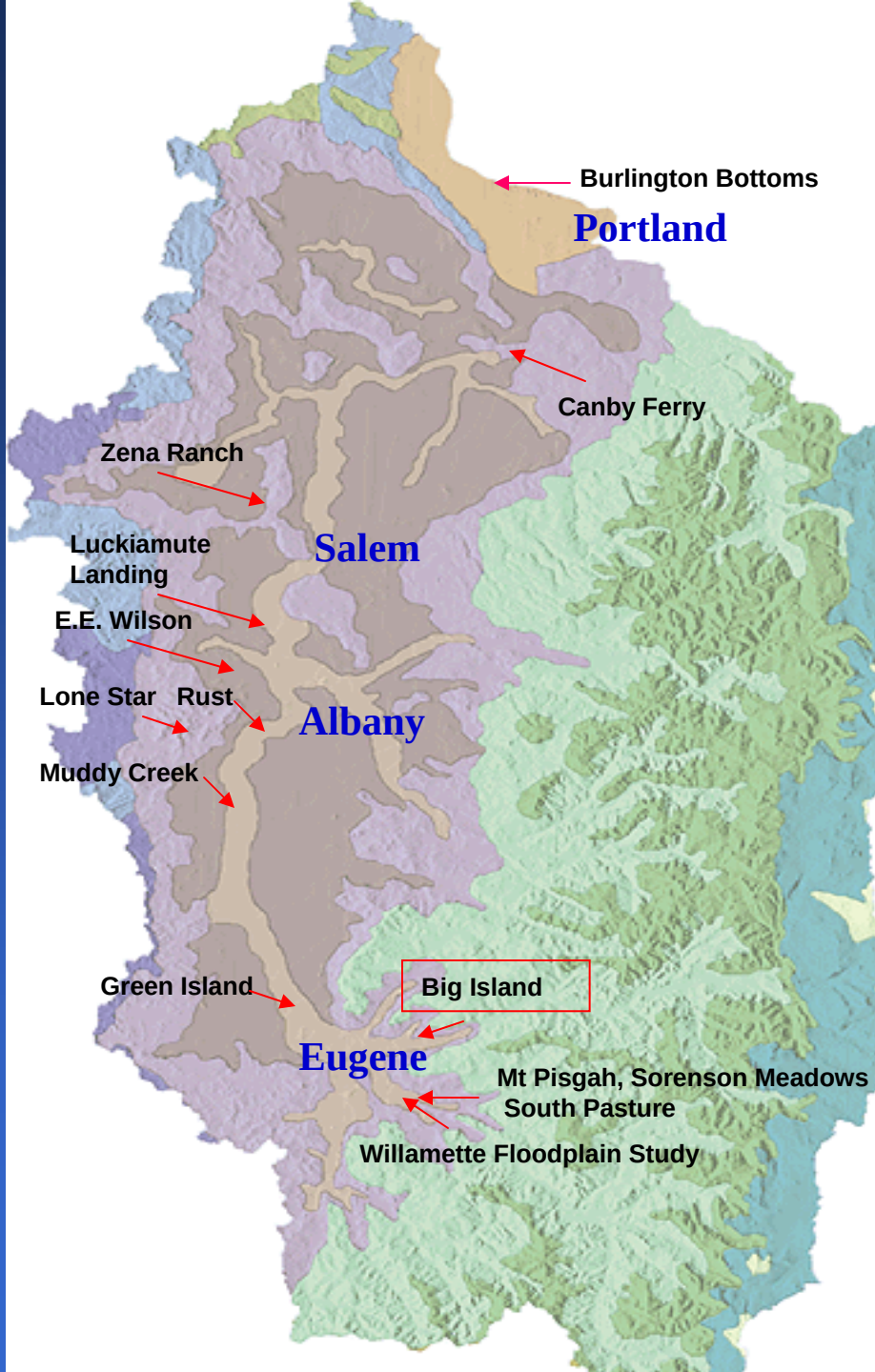
Cooperative (USCOE, ODFW, BPA, TNC and Willamette Partnership) multi-year project to restore floodplain functions by allowing river to act more like a river.

- **Conservation of floodplain lands**
- **Restoration of riparian corridors**
- **Protection of bio-sensitive channel banks**



Willamette Subbasin Mitigation Projects

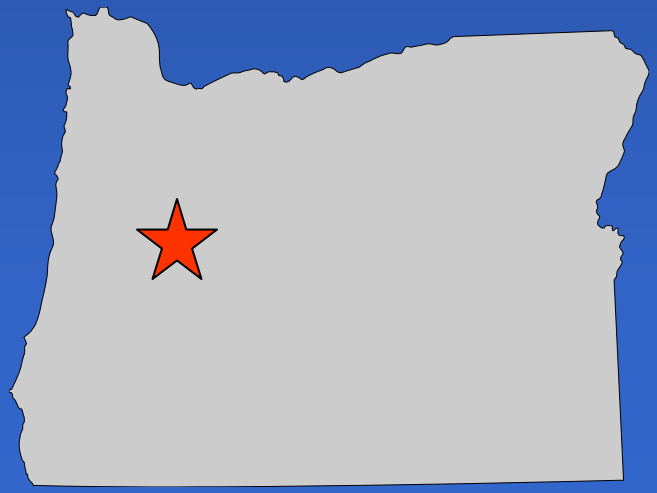
Big Island

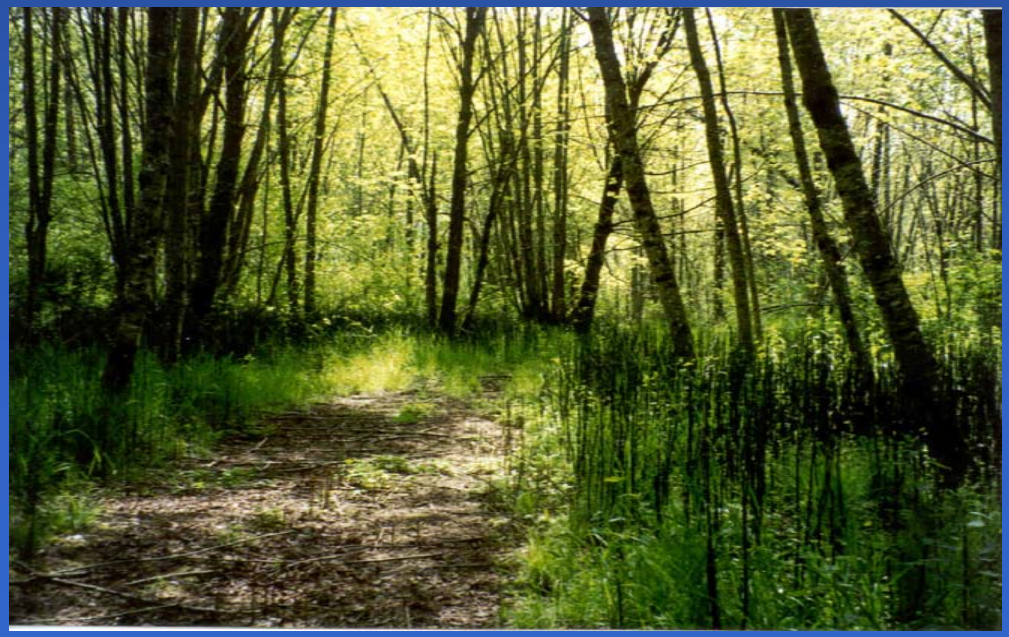


Big Island
Willamette Subbasin

Implemented in 2001
108 acres

Habitat Types:
Riparian Forest
Riverine
Wetlands





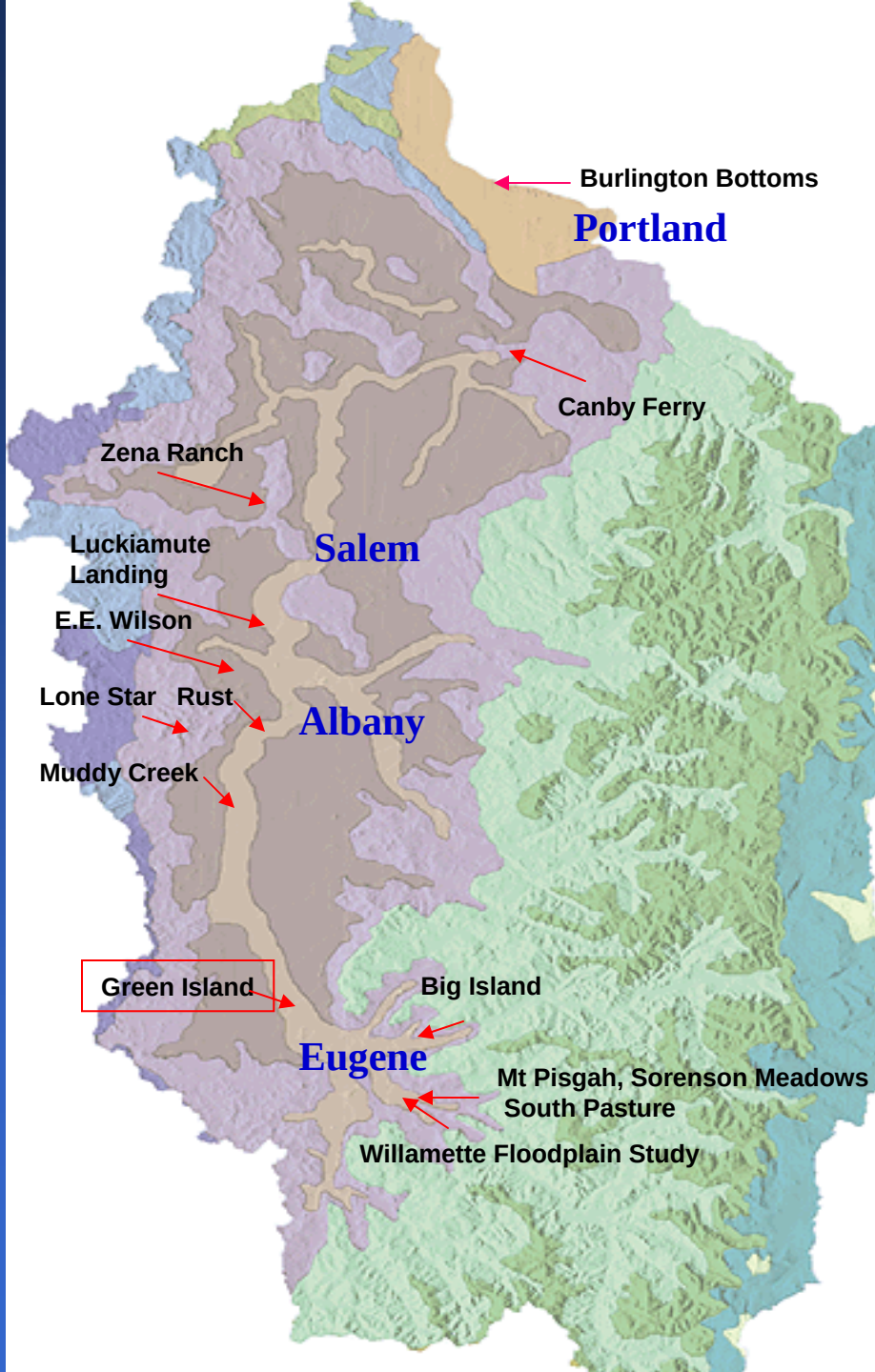
Big Island

Project Activities:

- **Invasive species removal**
- **Native planting**
- **Restoring hydrology**
- **Road decommission**
- **Species Management**

Willamette Subbasin Mitigation Projects

Green Island



Green Island
Willamette Subbasin

Implemented in 2003

1100 acres

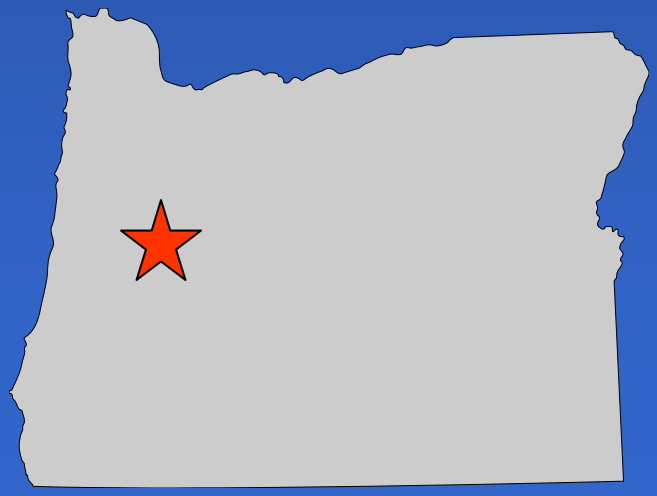
<u>Habitat Types</u>:

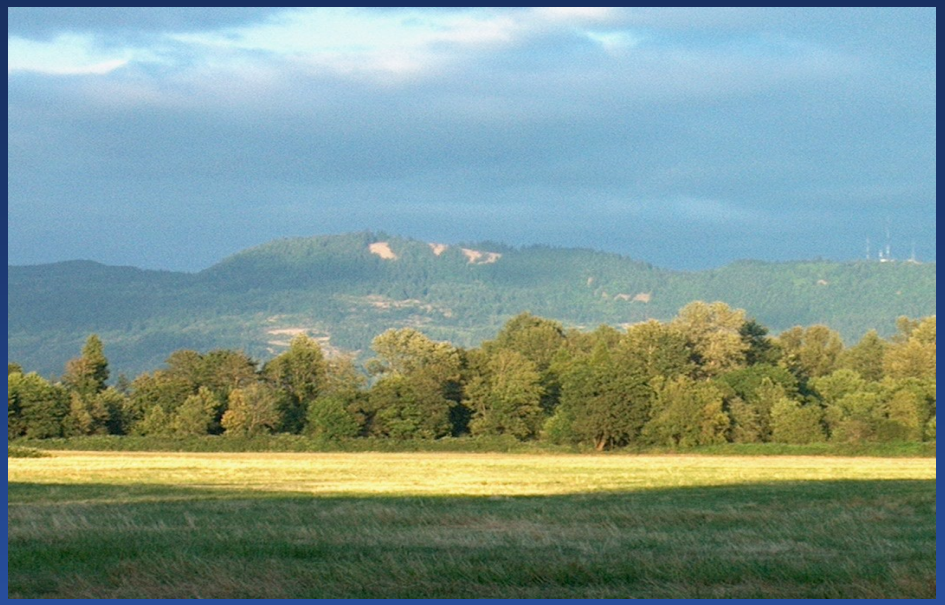
Riparian Forest

Upland/Wet Prairie

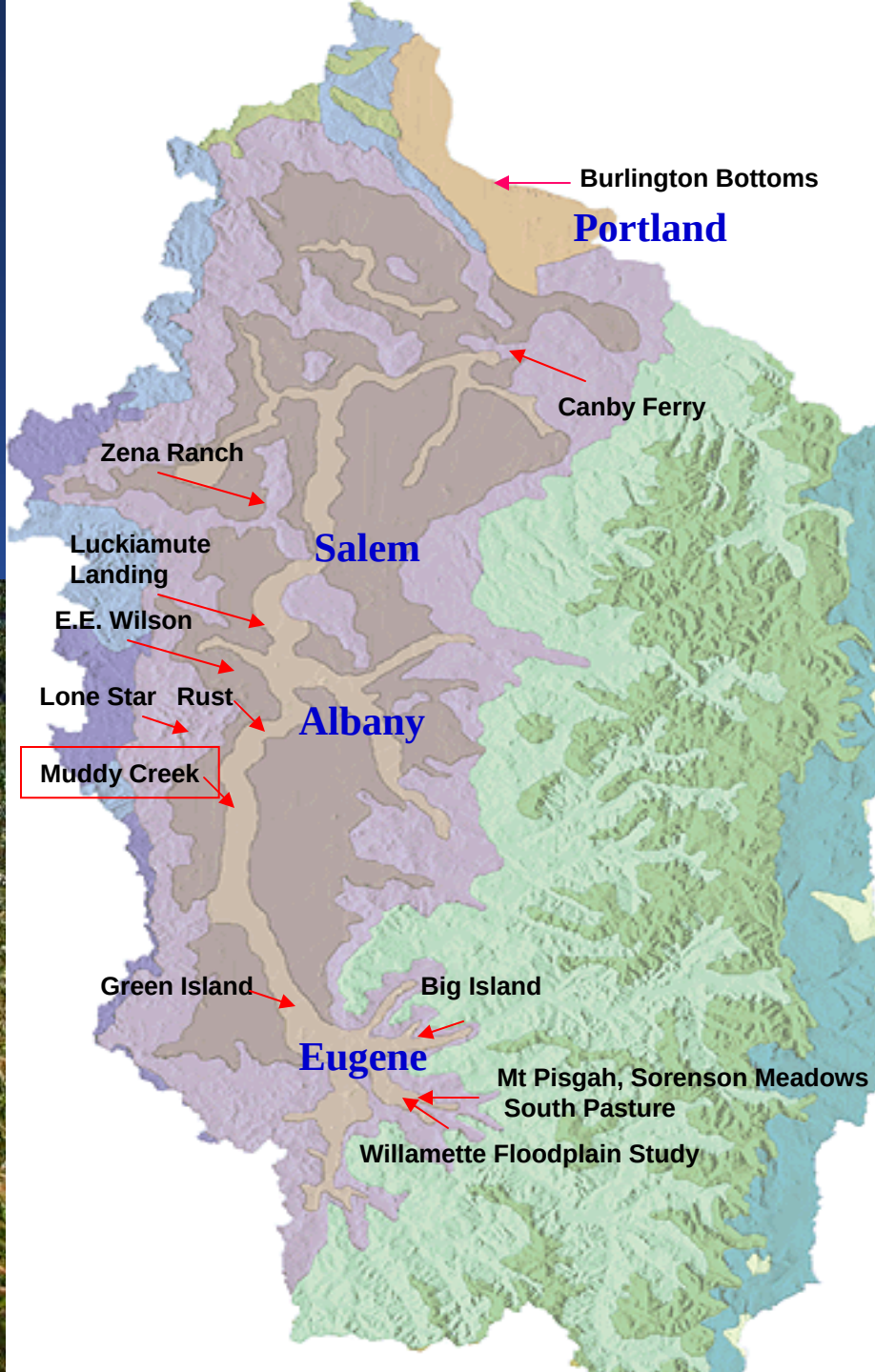
Riverine

Wetlands





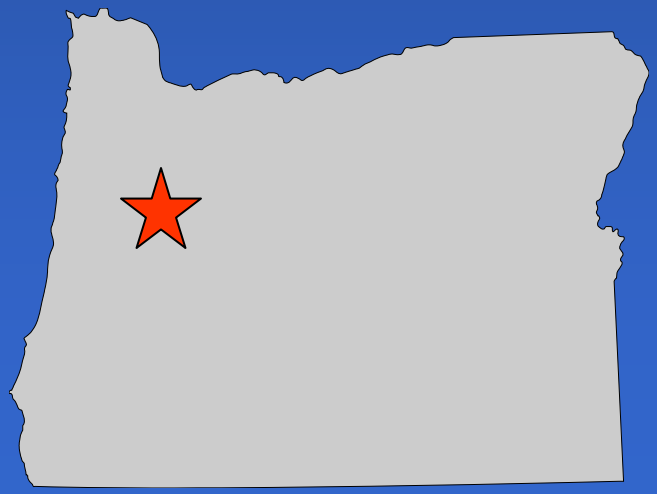
Willamette Subbasin Mitigation Projects



Muddy Creek
Willamette Subbasin

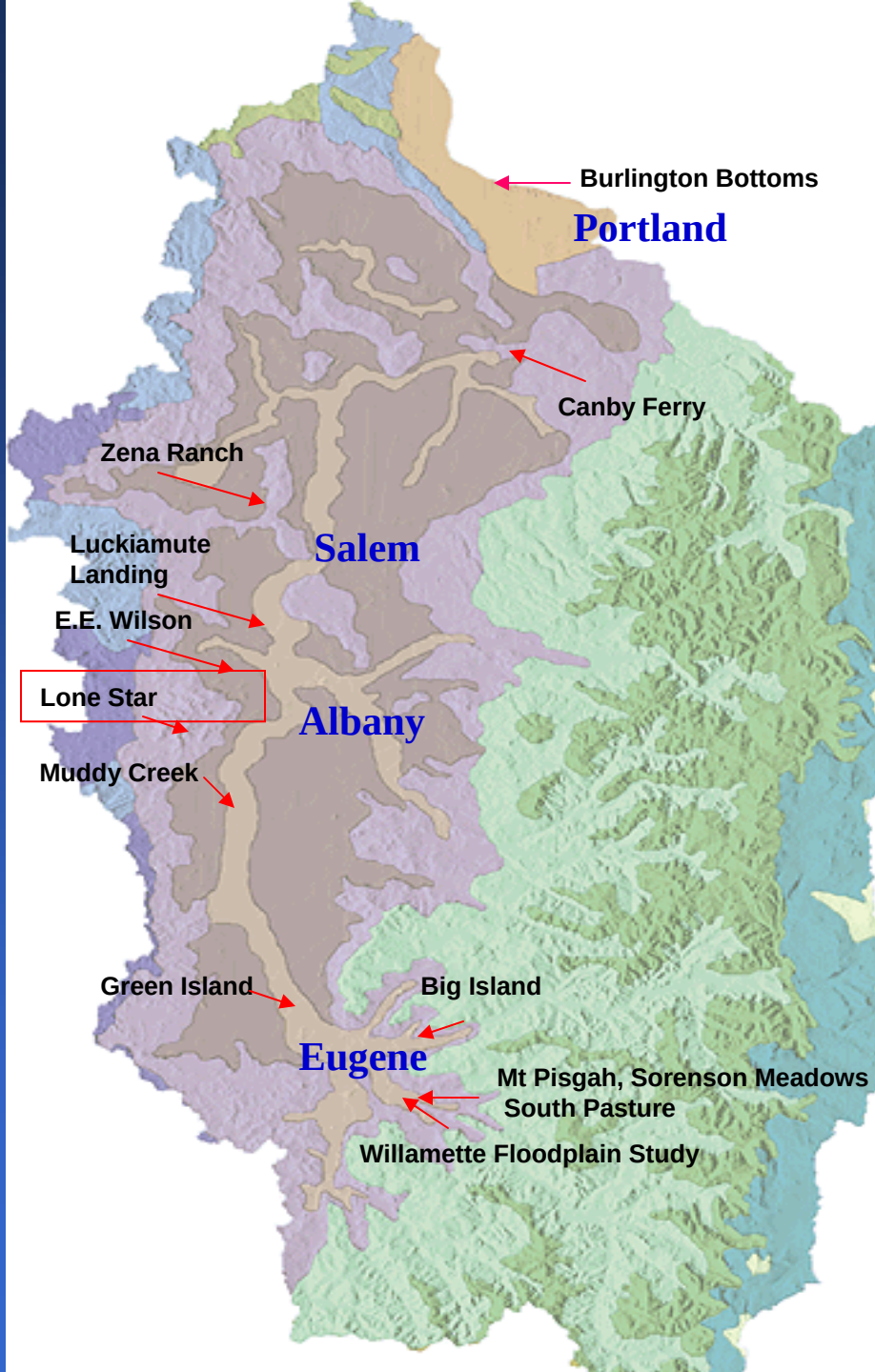
Implemented in 1999
220 acres

Habitat Types:
Riparian Forest
Wet Prairie
Wetlands



Willamette Subbasin Mitigation Projects

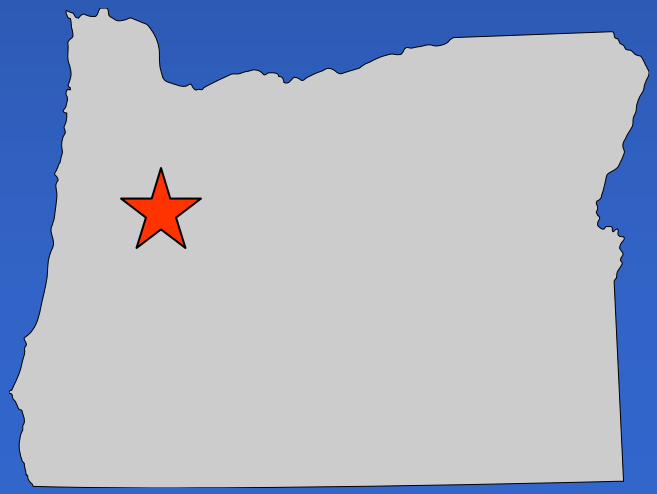
Lone Star



Lone Star
Willamette Subbasin

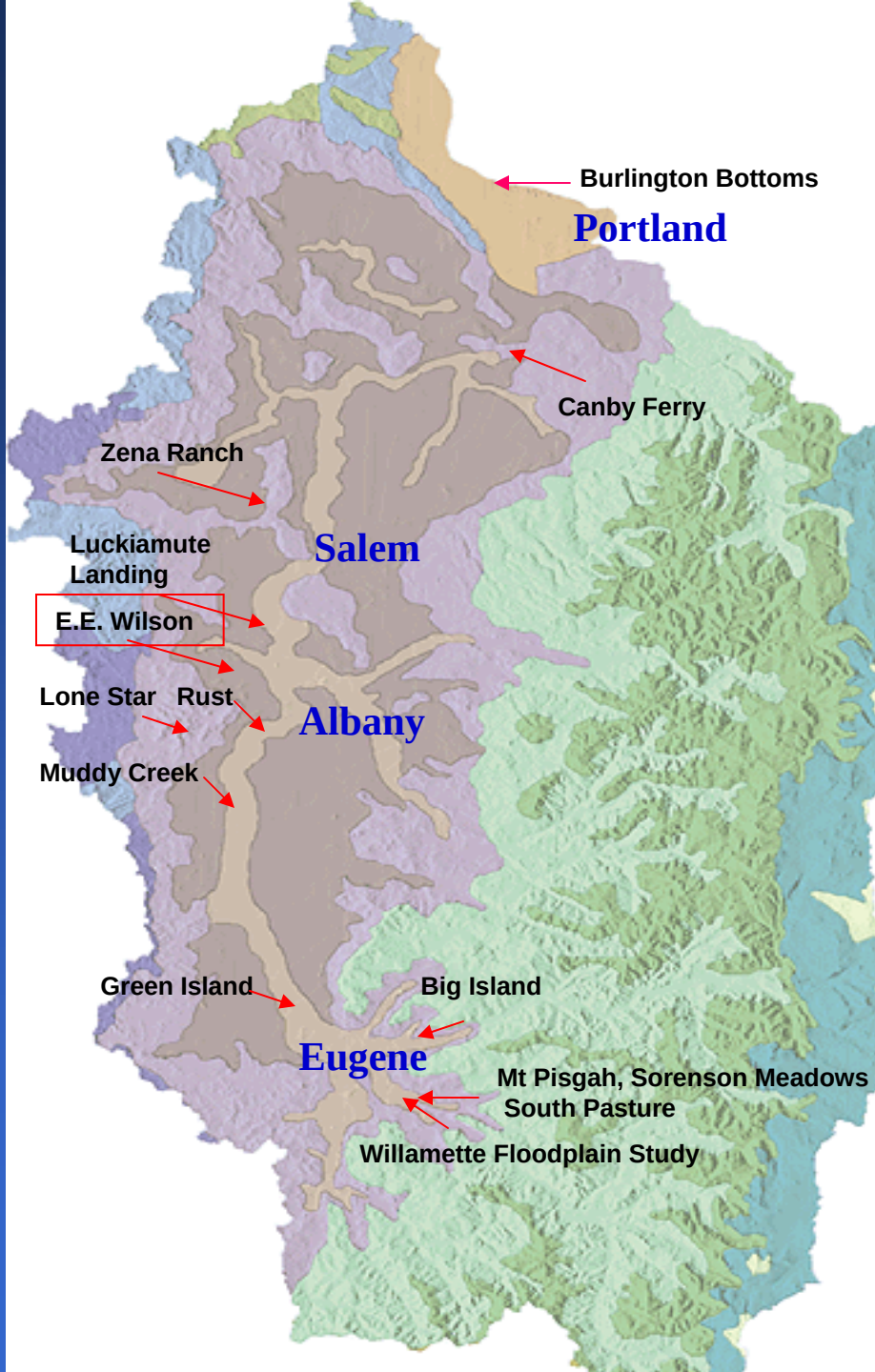
Implemented in 2008
200 acres

Habitat Types:
Upland Prairie
Oak Savanna



Willamette Subbasin Mitigation Projects

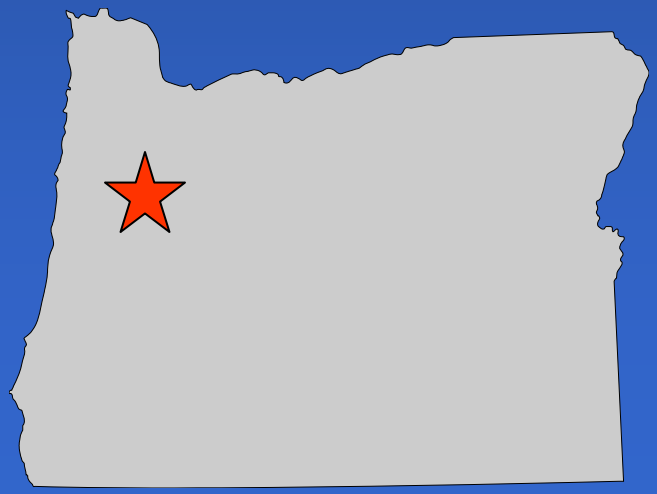
EE Wilson



EE Wilson
Willamette Subbasin

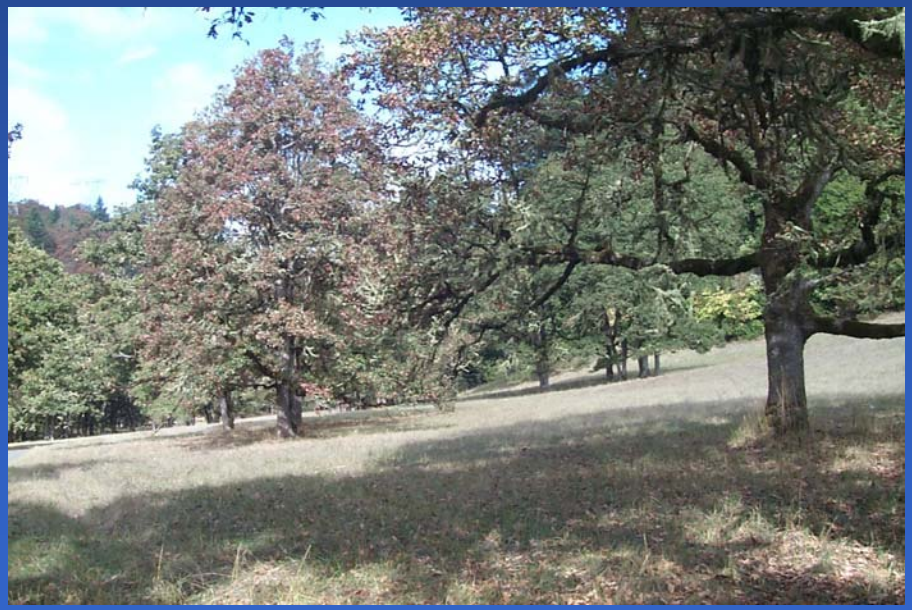
Implemented in 2006
150 acres

Habitat Types:
Upland/Wet Prairie
Wetland



Willamette Subbasin Mitigation Projects

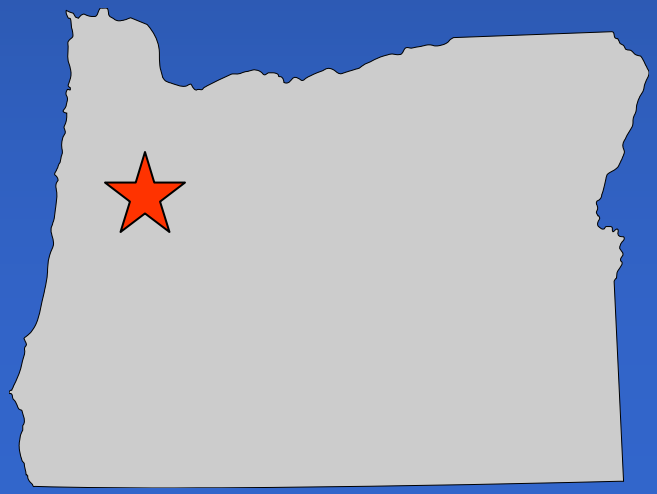
Zena Timber

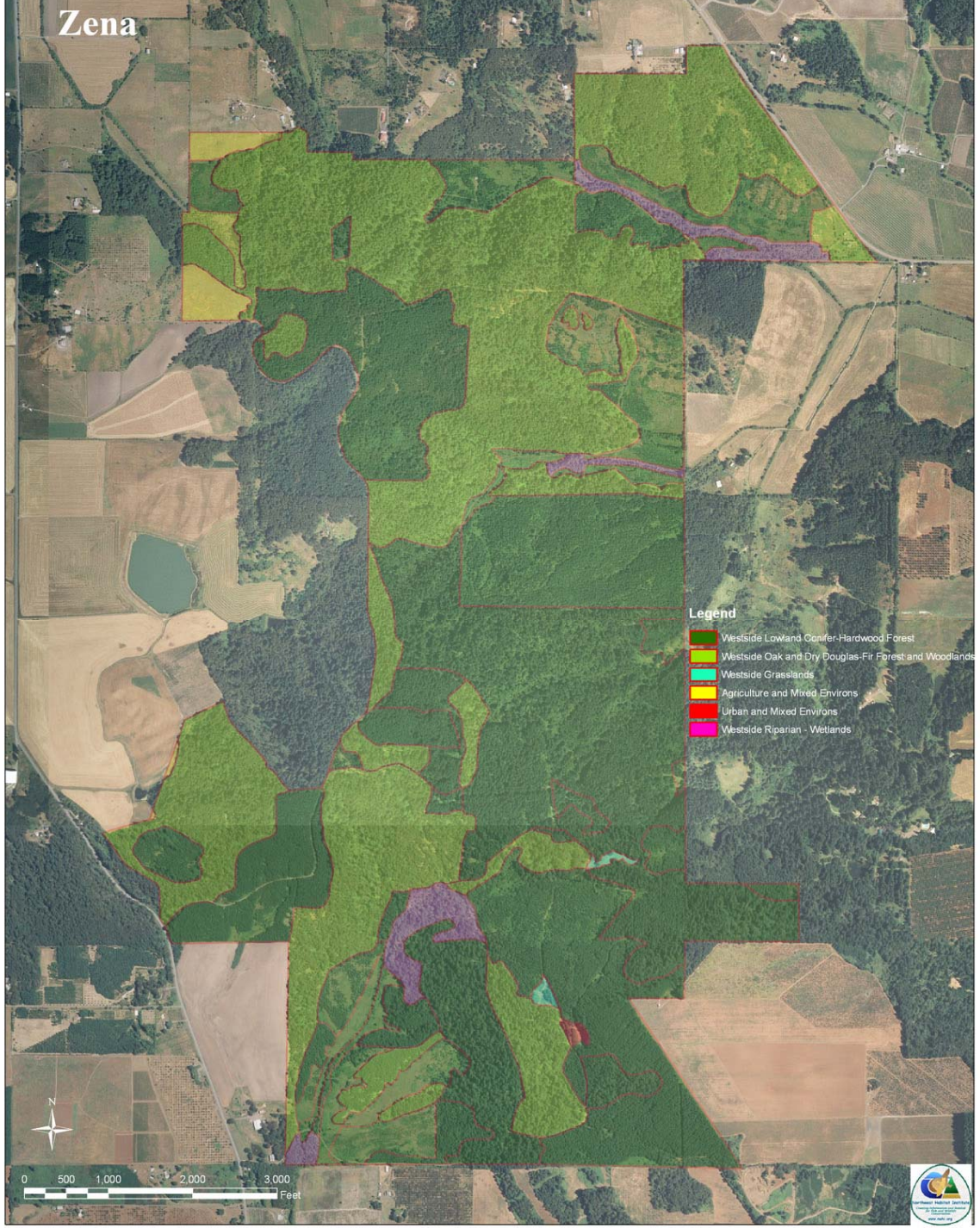


Zena Forest
Willamette Subbasin

Implemented in 2007
2000 acres

Habitat Types:
Upland Prairie
Oak Savanna/Woodland
Late Successional Conifer





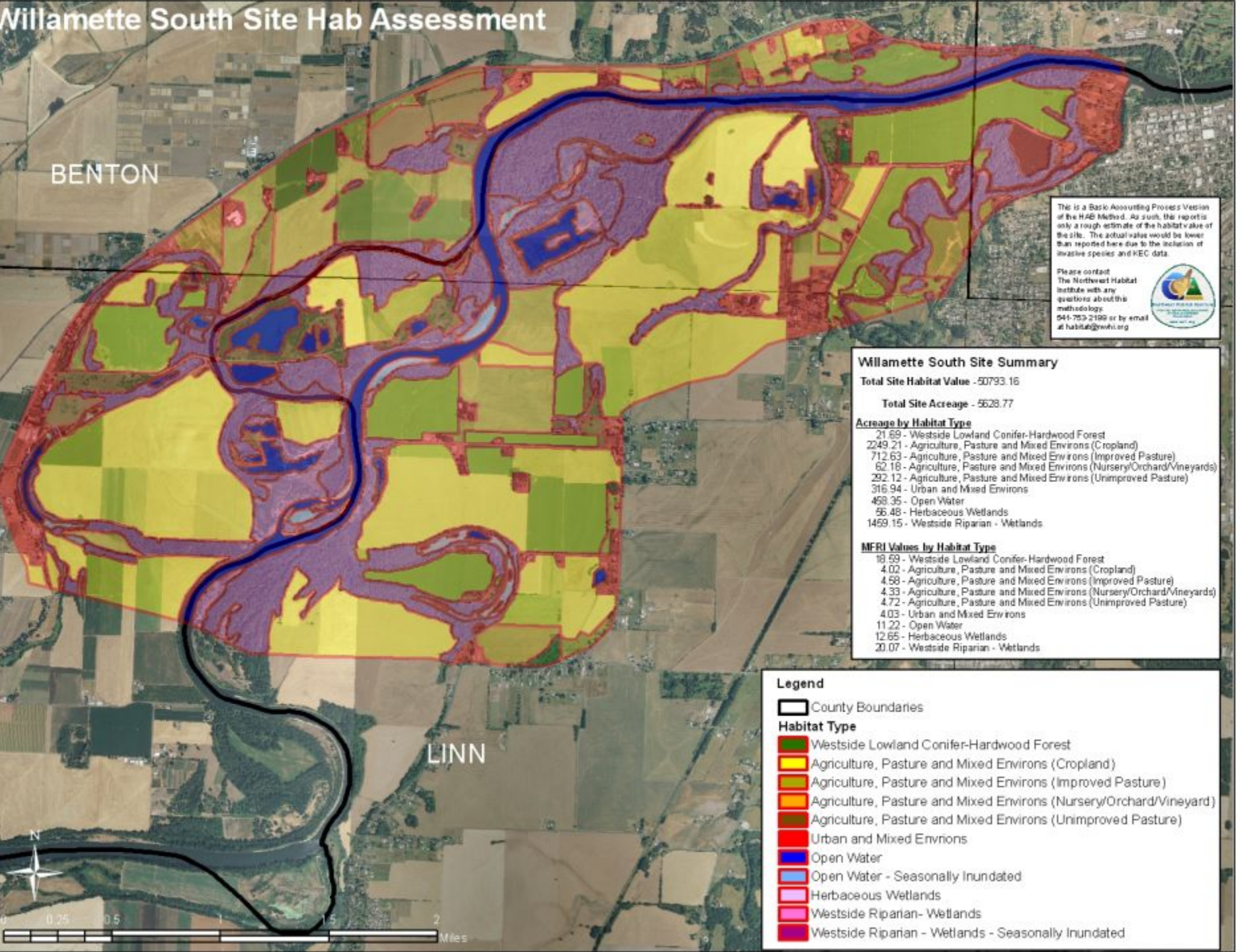
- FSC Standards
- Sustainability
- Unique Partnerships
- Carbon Credits
- Aggregations

2009 Project Activities

Project Activities:

- **2 Willamette River Easements- 2009**
- **1 Luckiamute River Easement-2009**
- **On-going Projects**
- **Camp Adair**
- **Beaver**
- **Assessments and Management Planning**

Willamette South Site Hab Assessment



This is a Basic Accounting Process Version of the HAB Method. As such, this report is only a rough estimate of the habitat value of the site. The actual value would be lower than reported here due to the inclusion of invasive species and KEC data.

Please contact The Northwest Habitat Institute with any questions about this methodology. 541-753-2199 or by email at habitat@nwhi.org

Willamette South Site Summary

Total Site Habitat Value - 50793.16

Total Site Acreage - 5628.77

Acreage by Habitat Type

21.69 - Westside Lowland Conifer-Hardwood Forest
2249.21 - Agriculture, Pasture and Mixed Environs (Cropland)
712.63 - Agriculture, Pasture and Mixed Environs (Improved Pasture)
62.18 - Agriculture, Pasture and Mixed Environs (Nursery/Orchard/Vineyards)
292.12 - Agriculture, Pasture and Mixed Environs (Unimproved Pasture)
316.94 - Urban and Mixed Environs
458.35 - Open Water
56.48 - Herbaceous Wetlands
1459.15 - Westside Riparian - Wetlands

MFRI Values by Habitat Type

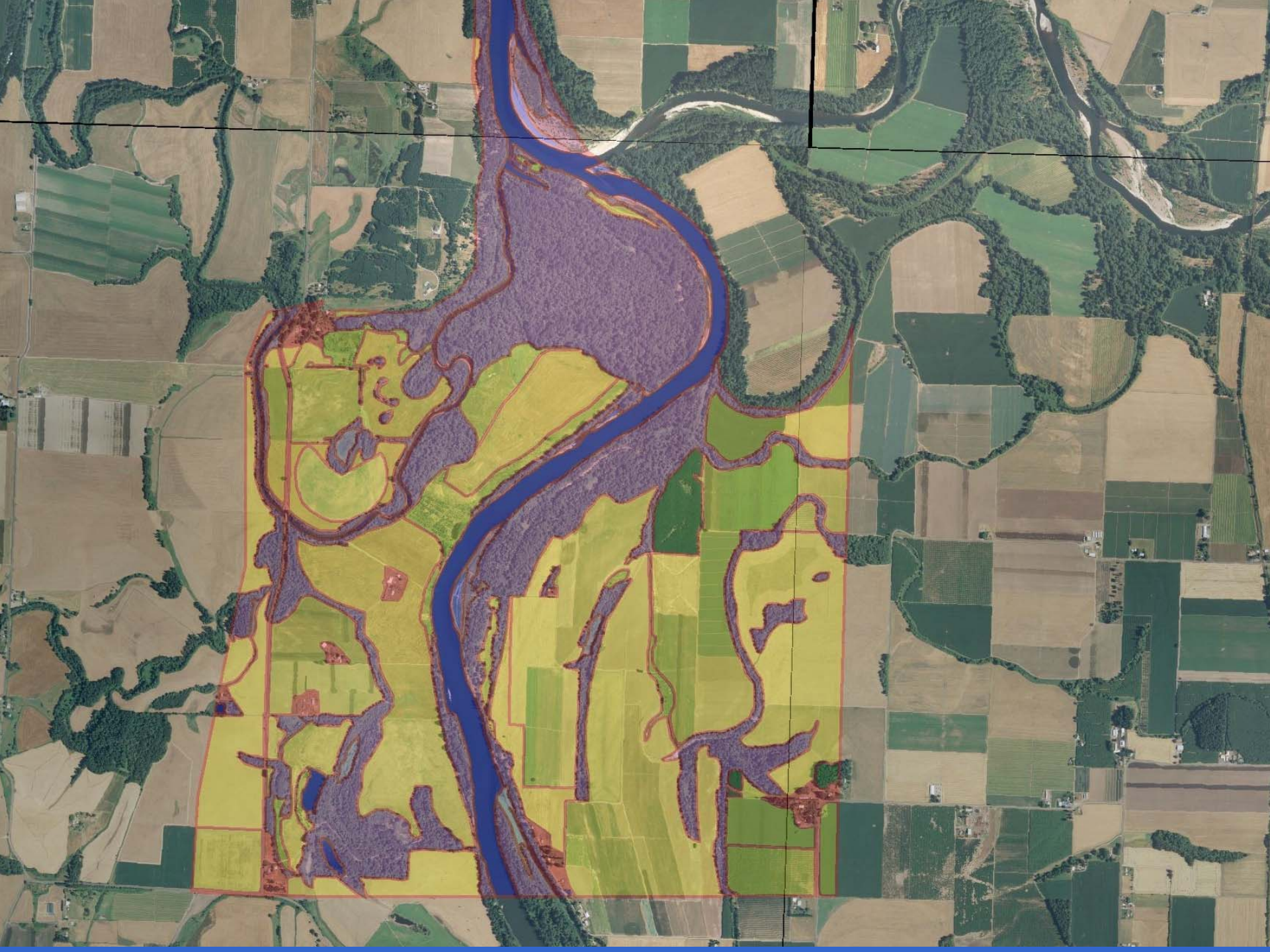
18.59 - Westside Lowland Conifer-Hardwood Forest
4.02 - Agriculture, Pasture and Mixed Environs (Cropland)
4.58 - Agriculture, Pasture and Mixed Environs (Improved Pasture)
4.33 - Agriculture, Pasture and Mixed Environs (Nursery/Orchard/Vineyards)
4.72 - Agriculture, Pasture and Mixed Environs (Unimproved Pasture)
4.03 - Urban and Mixed Environs
11.22 - Open Water
12.65 - Herbaceous Wetlands
20.07 - Westside Riparian - Wetlands

Legend

County Boundaries

Habitat Type

- Westside Lowland Conifer-Hardwood Forest
- Agriculture, Pasture and Mixed Environs (Cropland)
- Agriculture, Pasture and Mixed Environs (Improved Pasture)
- Agriculture, Pasture and Mixed Environs (Nursery/Orchard/Vineyard)
- Agriculture, Pasture and Mixed Environs (Unimproved Pasture)
- Urban and Mixed Environs
- Open Water
- Open Water - Seasonally Inundated
- Herbaceous Wetlands
- Westside Riparian- Wetlands
- Westside Riparian - Wetlands - Seasonally Inundated



Monitoring and Evaluation

- Biological Assessments
- Management Planning
- On-going Surveys (Avian, Herps, Aquatic, Plants etc)

Monitoring and Evaluation

- **Conservation Strategy: Fish and Wildlife Monitoring Team**
  - **Selection of Strategy Species**
  - **Associations with Strategy Habitats**