Aquatic Habitat Prioritization Tool Update

March 14, 2025

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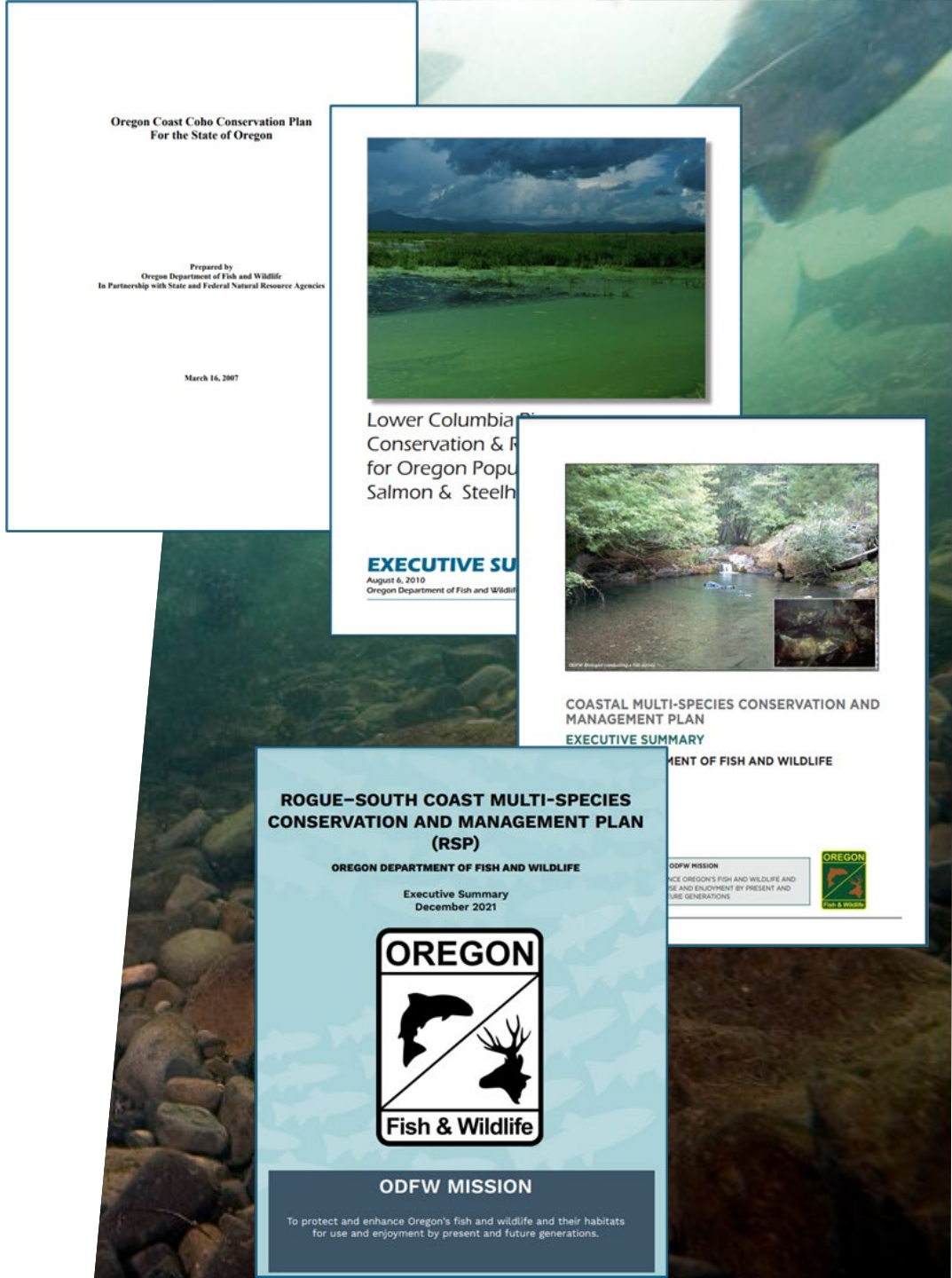
Contents

A Brief History of...Plans

- 2002: Native Fish Conservation Policy
- 2007: Oregon Coast Coho
- 2010: Lower Columbia Plan
- 2014: Coastal Multi-Species Plan
- 2021: Rogue – South Coast Plan



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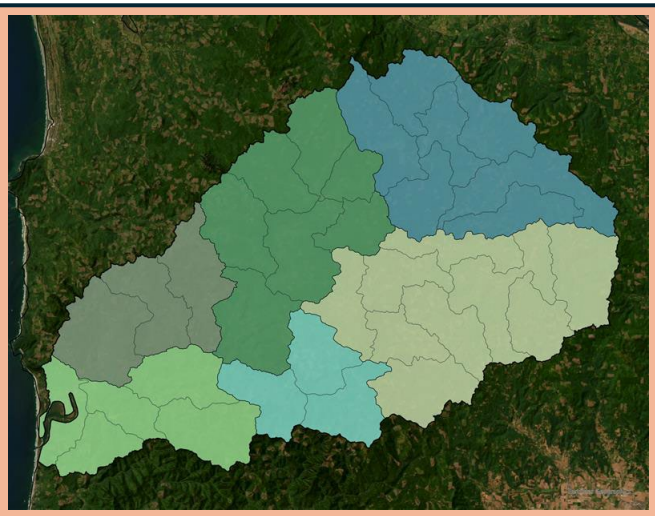
A Brief History of Plan… Scale, Priorities, Climate

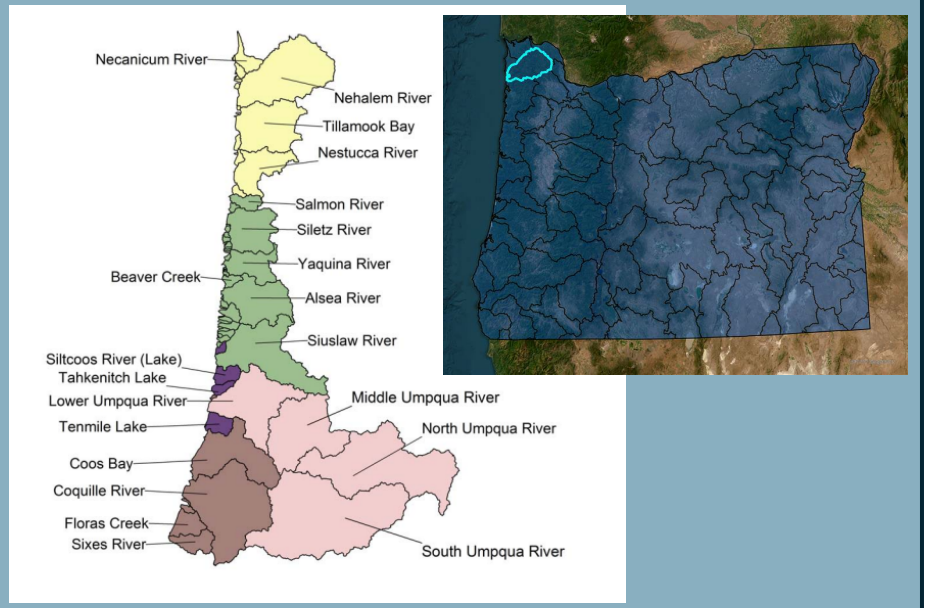
2014

HUC12



2002
2007
2010*

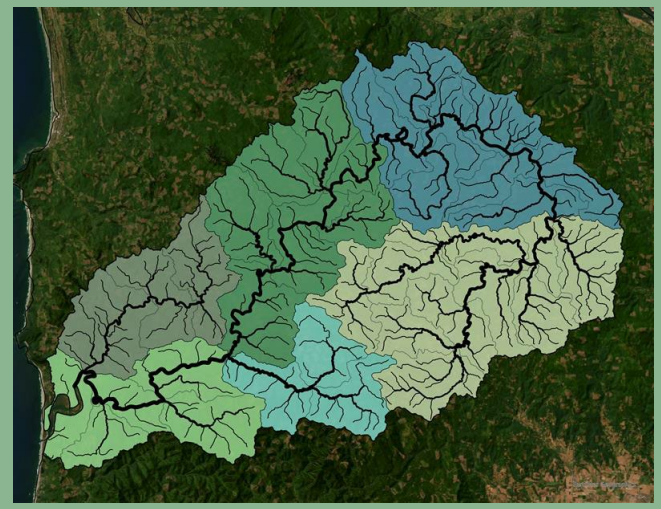
~HUC8



2018

Aquatic Habitat Prioritization

statewide, multi-species, HUC 10 spatial priorities accounting for climate change, derived from fine, stream-reach data

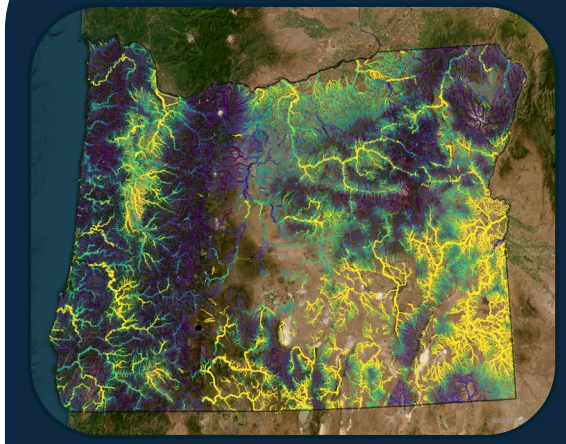


*

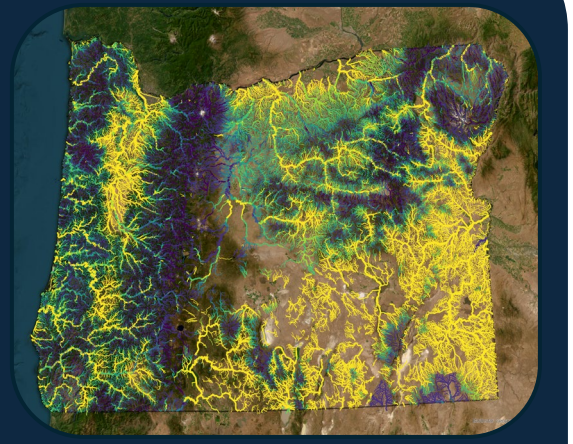
2020: Climate and Ocean Change Policy

2021: HUC 10 and stream-reach

1. Thermal Suitability

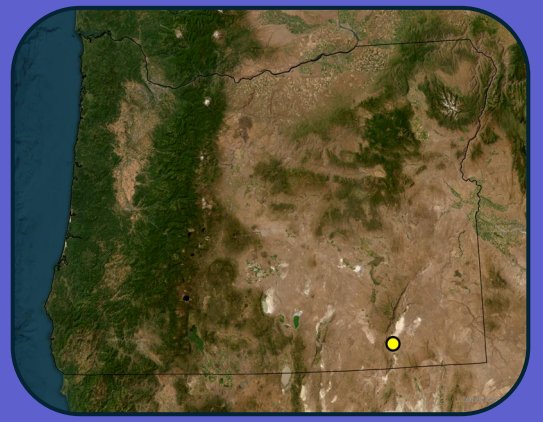


Current

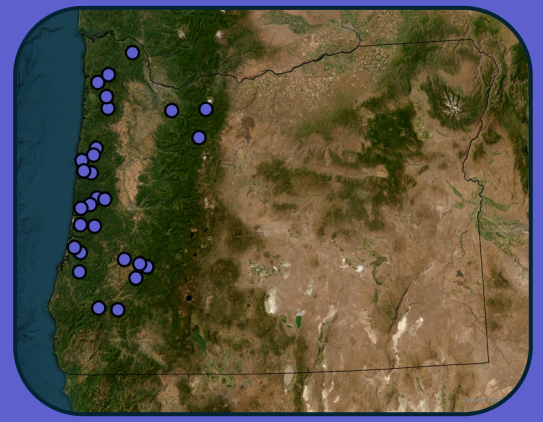


Future

3. Species

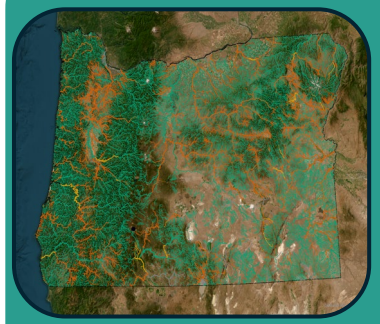


Narrowly Distributed

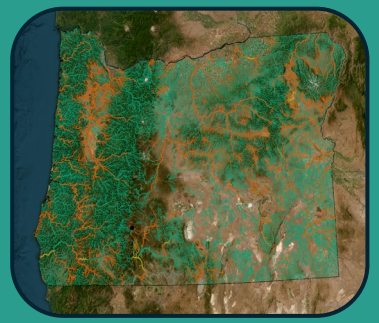


Strongholds

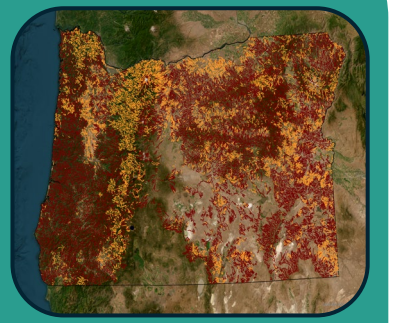
2. Instream Flow



Current Flow Target Achievement

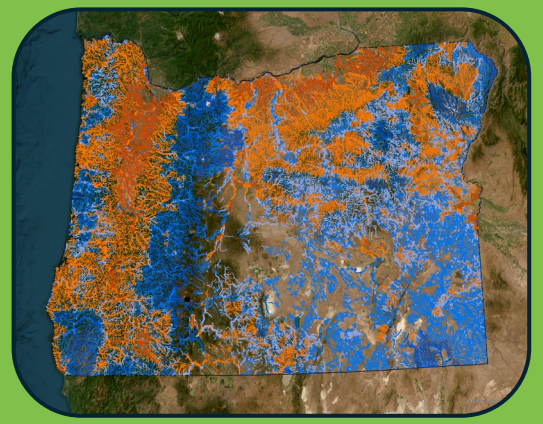


Future Flow Target Achievement

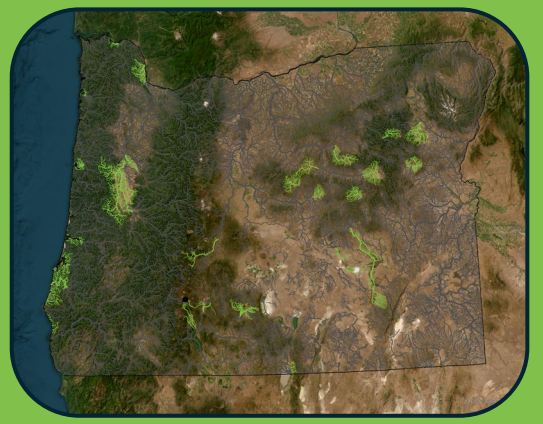


Flow Permanence Change Metric (PROSPER)

4. Human Impact and Wetlands



Habitat Impact



Wetlands

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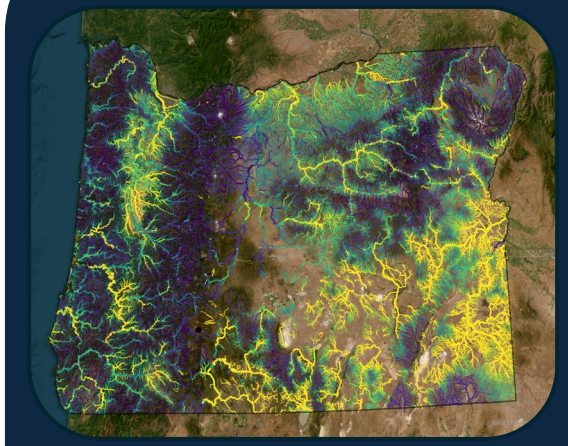

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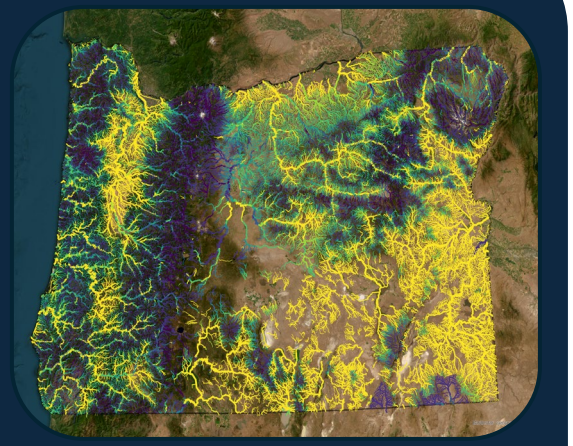
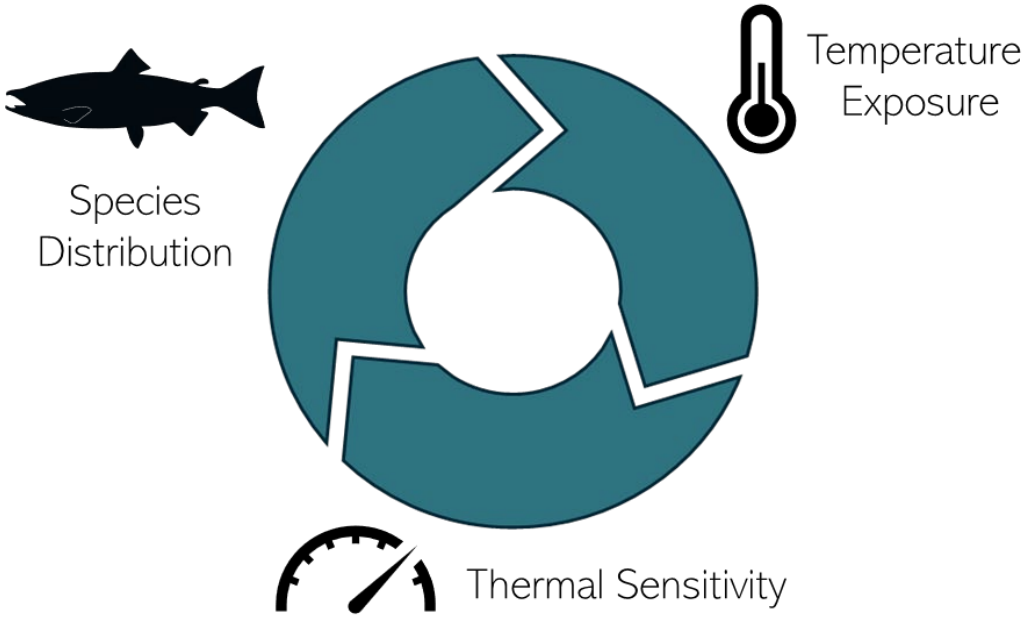


Future



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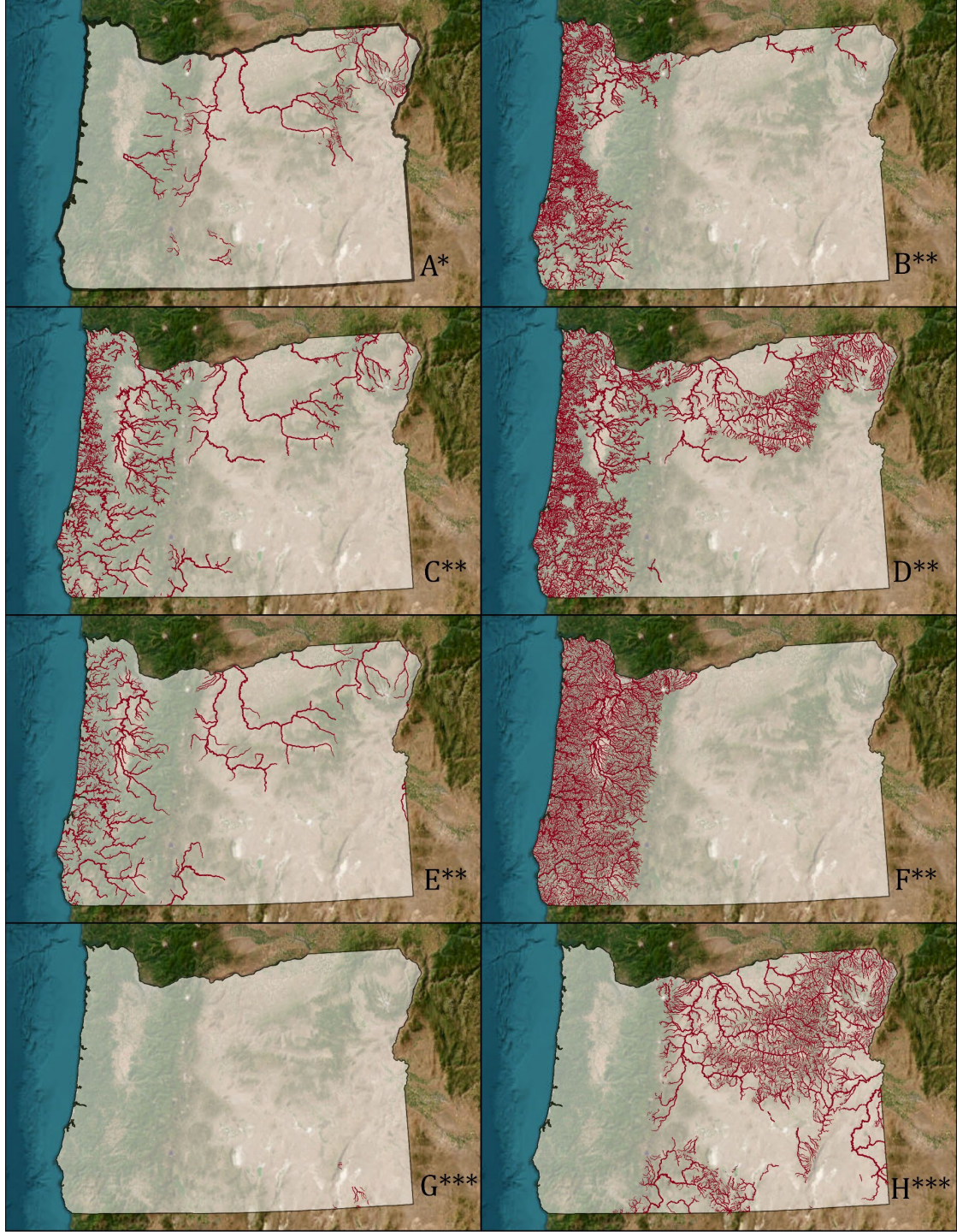
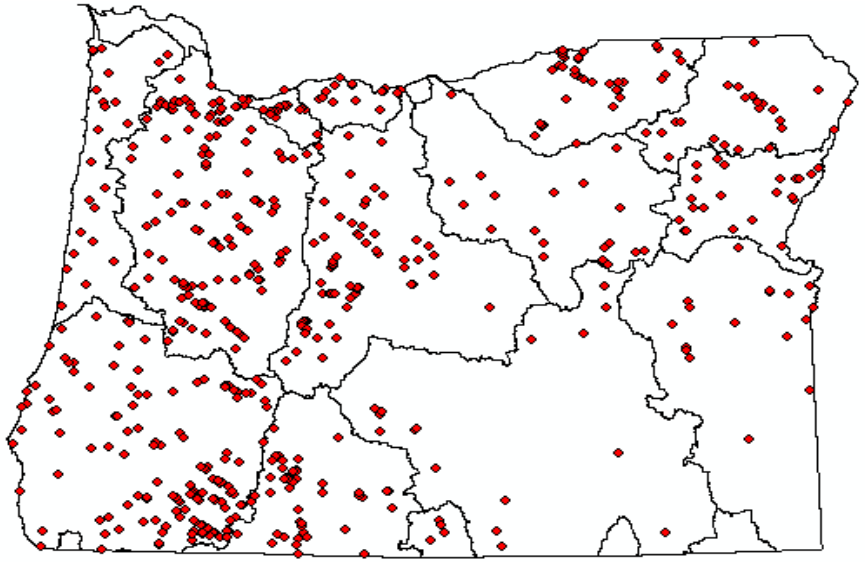


Biotarget Locations



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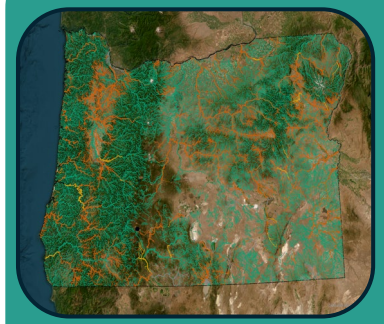

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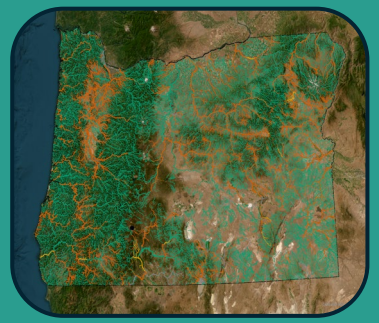
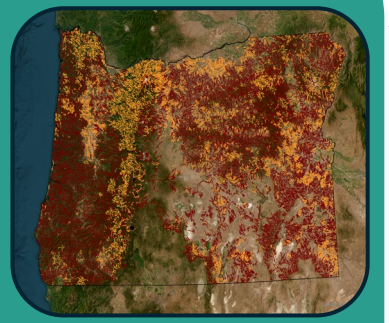


Future Flow Target Achievement



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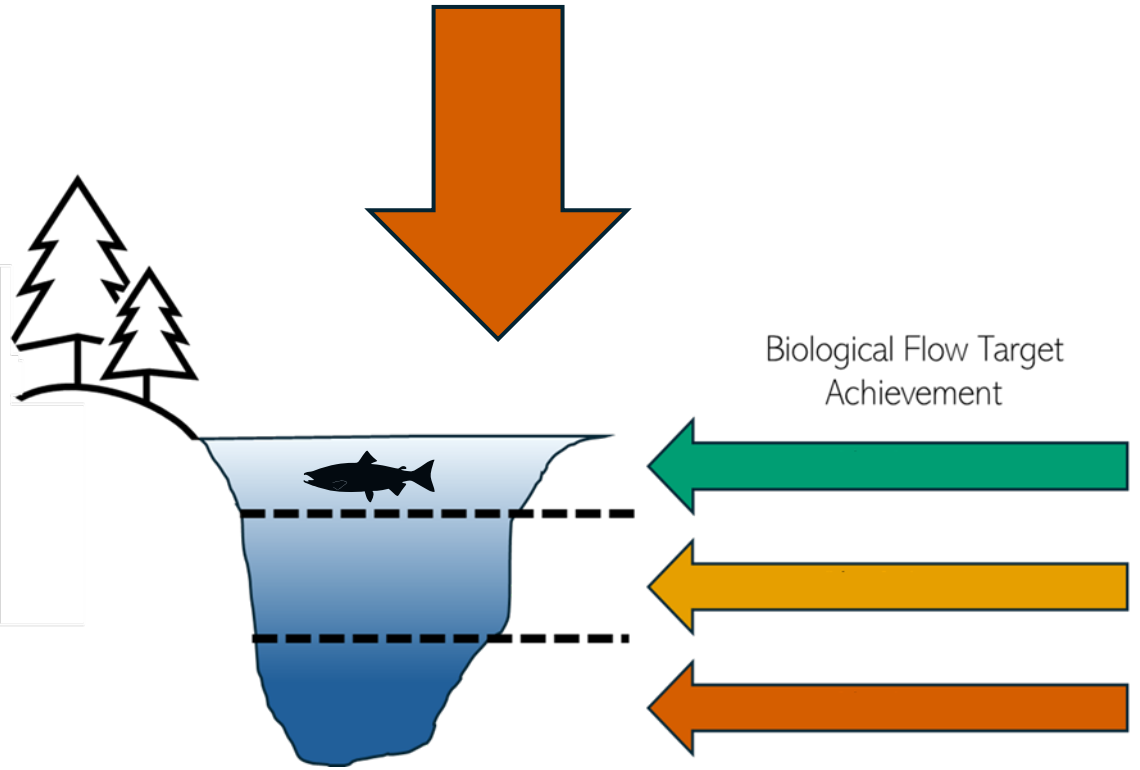

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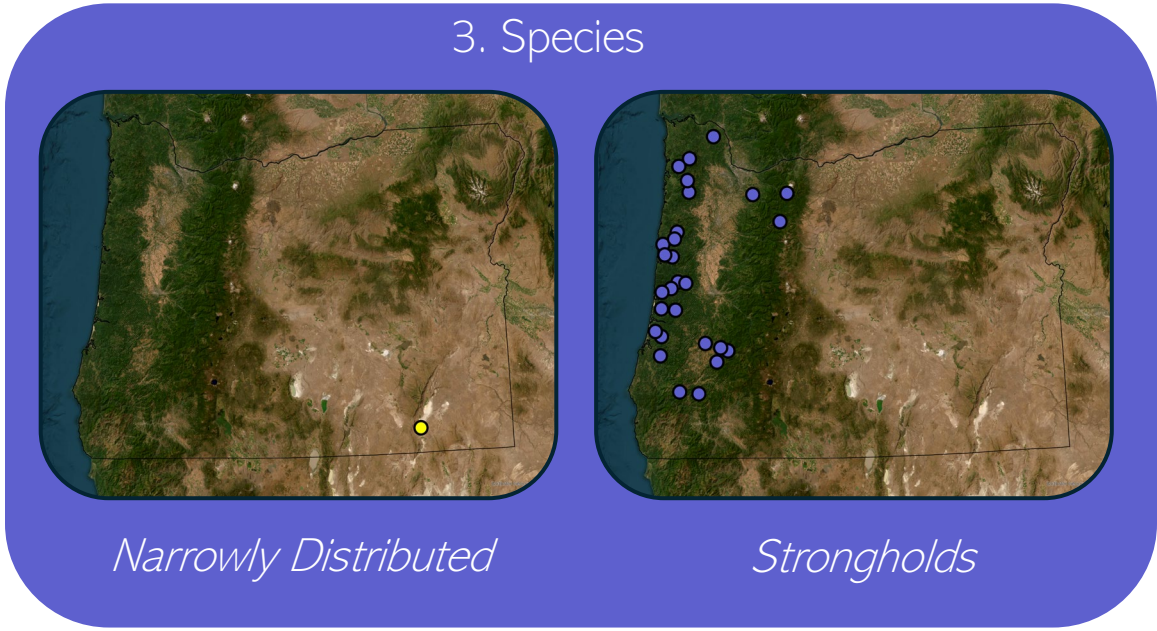
- Need to incorporate local expertise to compliment modeled data
- 2020-2021 Interviews were conducted with District Biologists



Narrowly Distributed Species: Areas occupied with species with very limited natural distribution

Species Strongholds: Hotspot areas that have high abundance/production/persistence of species with wide distribution

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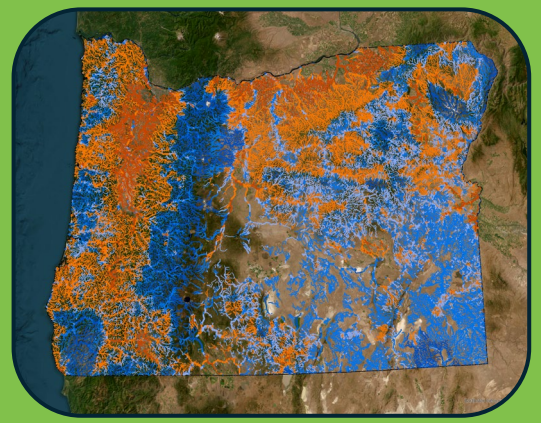
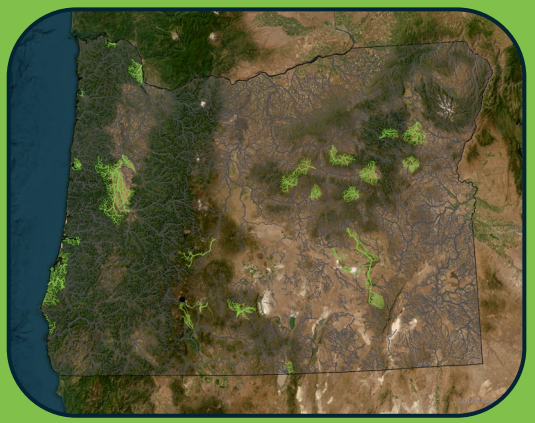
Wetlands: Watersheds that had high abundance of wetlands **or** contained an ODFW Wetland of Greatest Importance which were weighted more heavily

4. Human Impact and Wetlands



Human Habitat Impact



Wetlands

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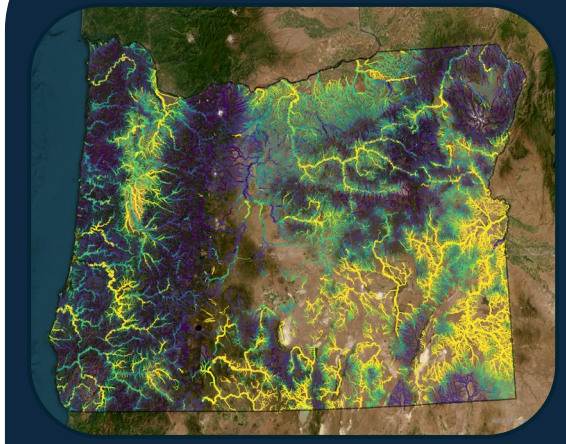

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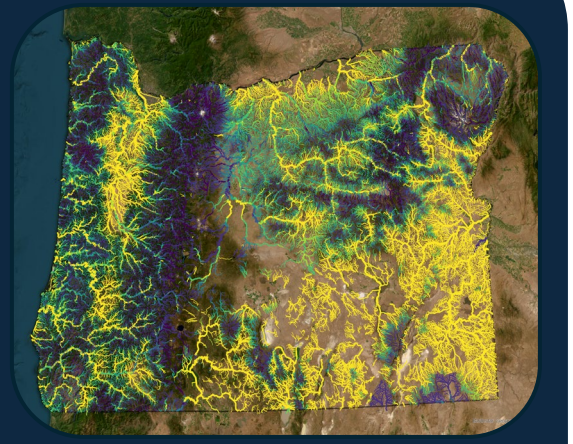

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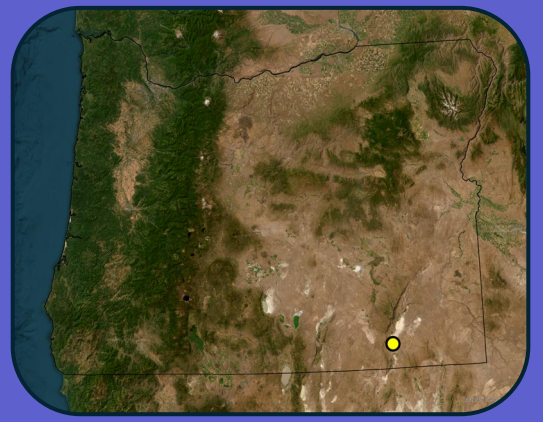

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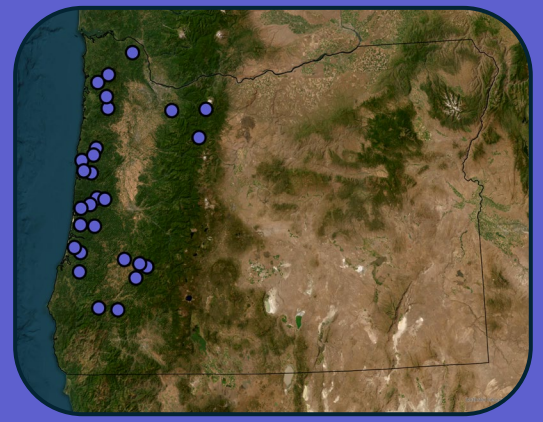

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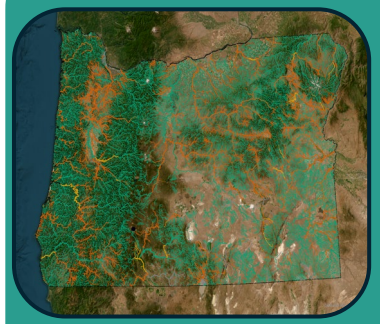

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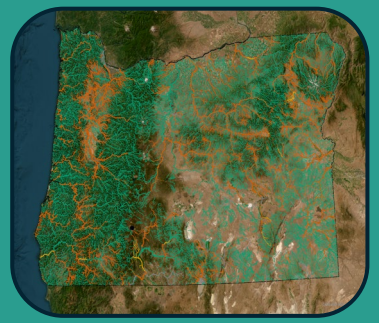
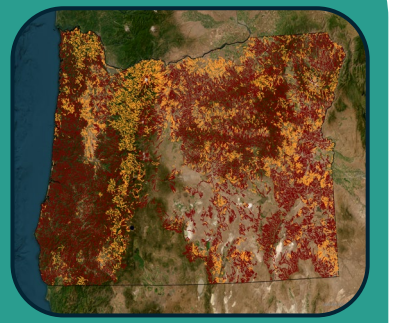


Future Flow Target Achievement



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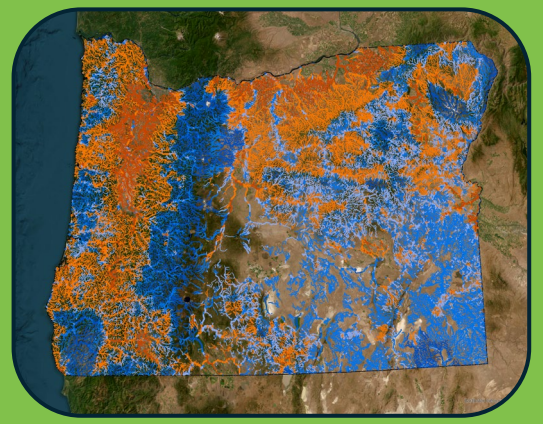

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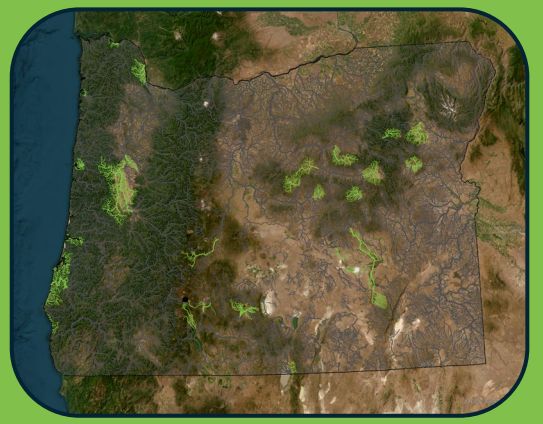

Wetlands

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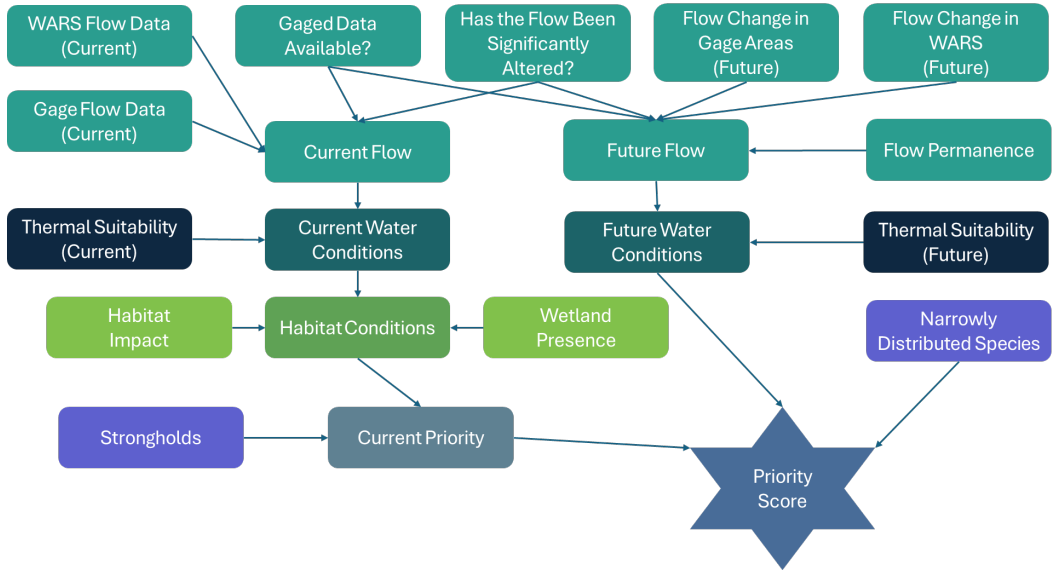
Selecting Priorities with a Bayesian Belief Network

- Bayesian Belief Networks (BBN) are a decision-making webs
- Use probabilities to reflect defined **impacts** or **costs** of an input
- When new information is added, the model improves
- Reach results were expanded to the watershed scale



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Tool Demo

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Uses

Grant Programs

Mitigation

District-Specific and Partner Prioritization

Oregon Conservation Recreation Fund

PRIVATE FOREST ACCORD

GRANT PROGRAM

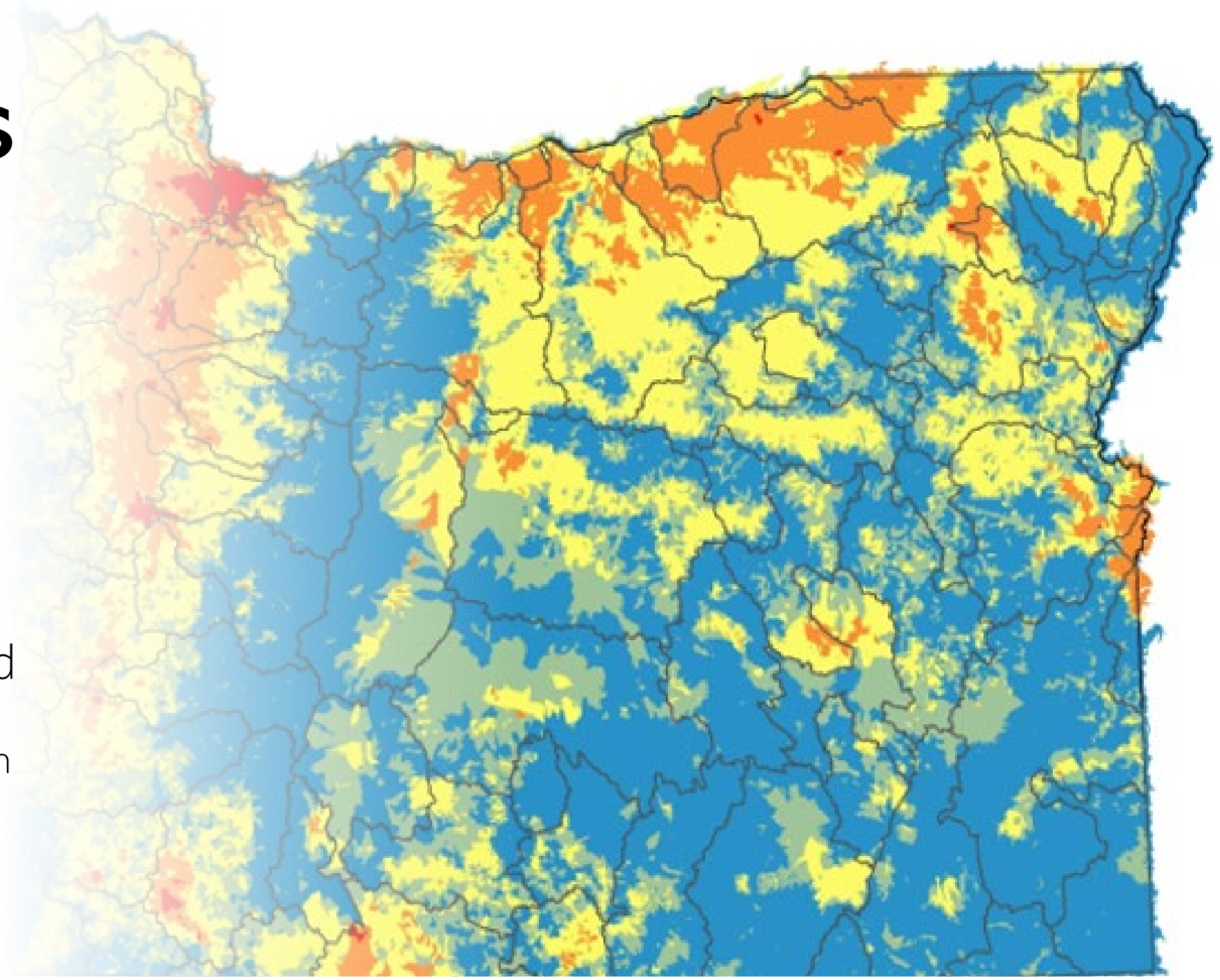
OREGON DEPARTMENT OF FISH & WILDLIFE

Oregon Watershed Enhancement Board

Photo: Paul Vecsei

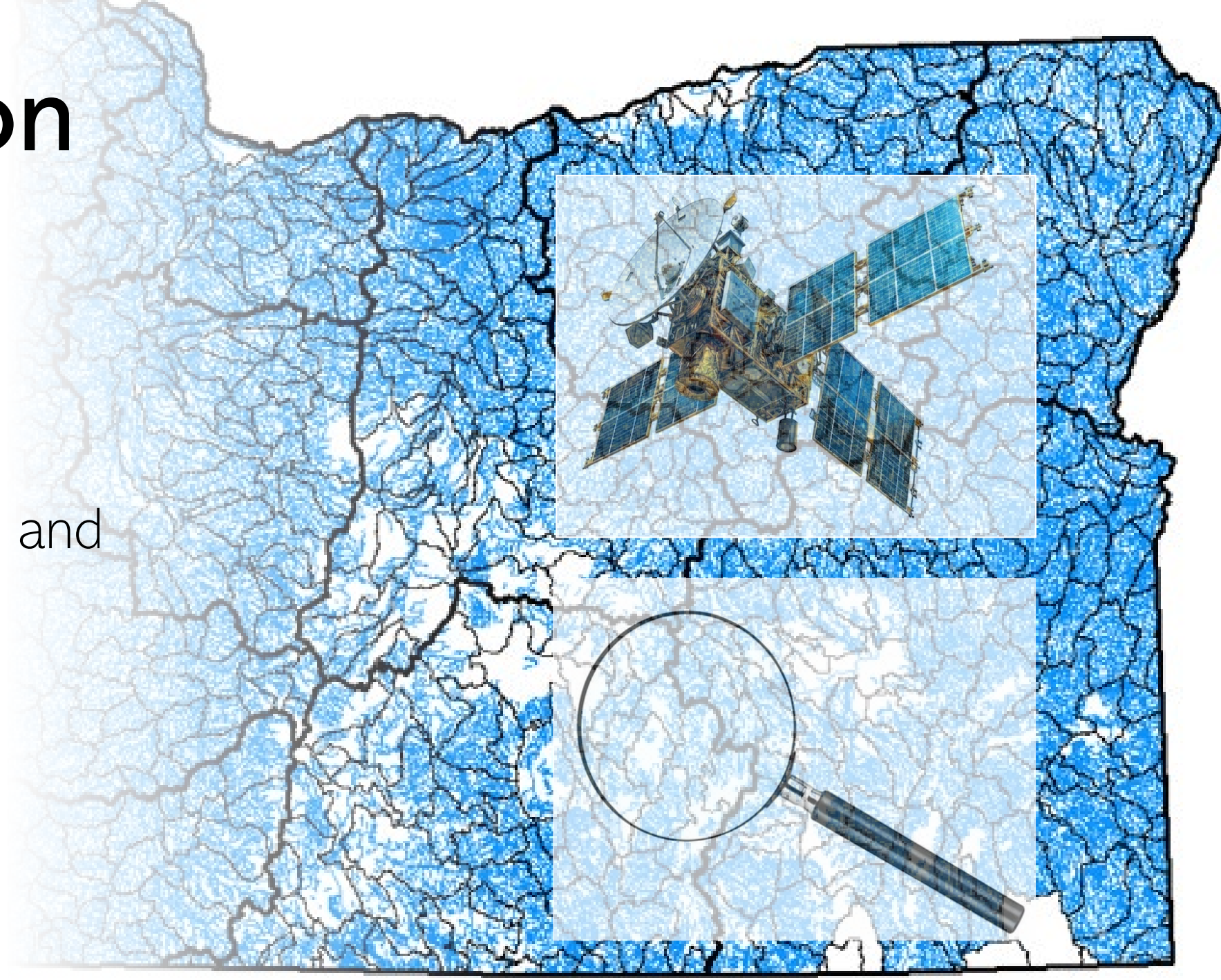
Limitations

- Protection vs Restoration
- Data Scales
- Statewide
  - ODFW Watershed
    - HUC 10
      - Stream Reach



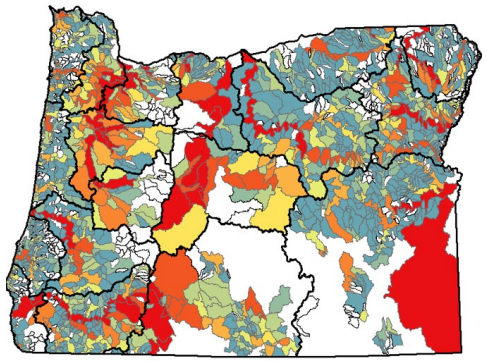
Restoration

- Limited statewide datasets
- Localized datasets and knowledge
- Higher resolution



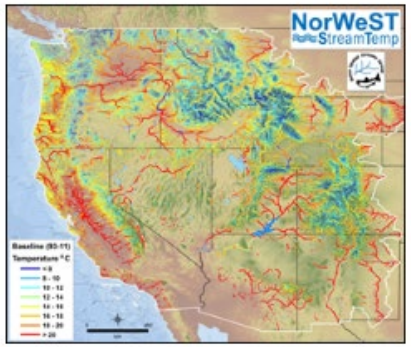
Flow Restoration Example

Flow

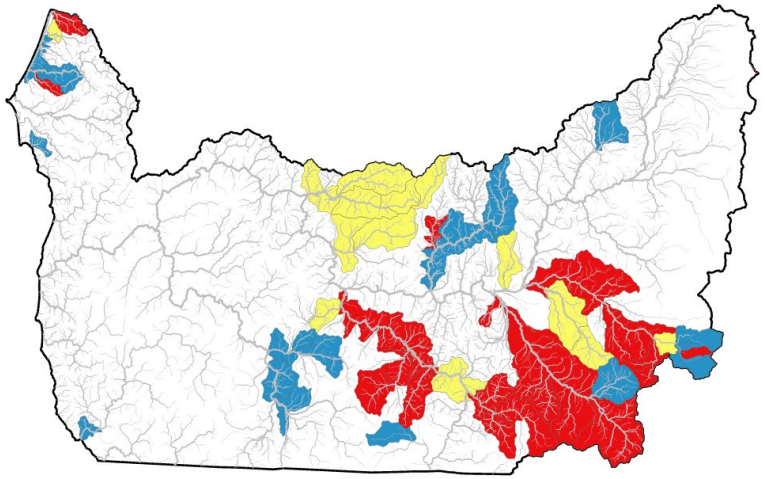


Fish

Temperature



Priority Sub-Basins



Priority Water Rights

WILD SALMON CENTER

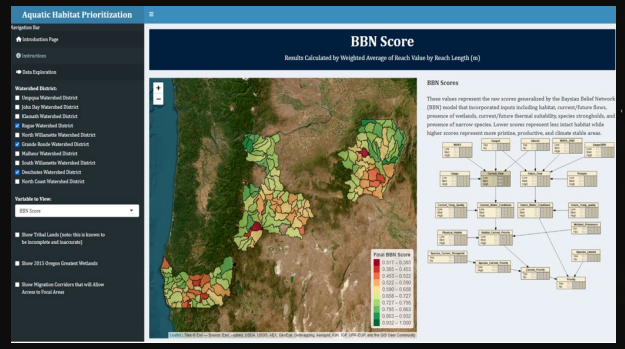
Oregon Association of Conservation Districts

TROUT UNLIMITED

Looking Forward

Finalize

Publish



Implement/
Refine Locally

Photo Paul Vecsai

Questions?