Riparian Data Engine: An Aid for Identifying and Prioritizing Riparian Restoration Projects

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Overview

15-minute presentation:

- Context
- Who is involved?
- Why are we building this tool?
- What is this tool?
- Who are we building it for? How do we anticipate they will use it?
- How has it been received thus far?
- When will it be ready?

15-minute dialog/Q&A

Who is Involved?

Legislature

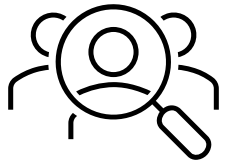
Groups Convened by the Legislature

WDFW Staff

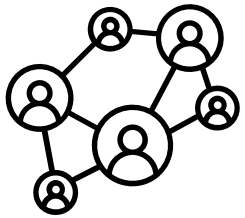
Ken Pierce, Robin Hale
Margen Carlson,
Chris Conklin …

Consultant Team: ESA

Mike Leech, Spencer Easton…



Focus Group of Practitioners



Key Users

Context

We anticipate increasing interest and investment in riparian restoration.

Our tool delivers greater bang for the buck.

Why are we Building this Tool?

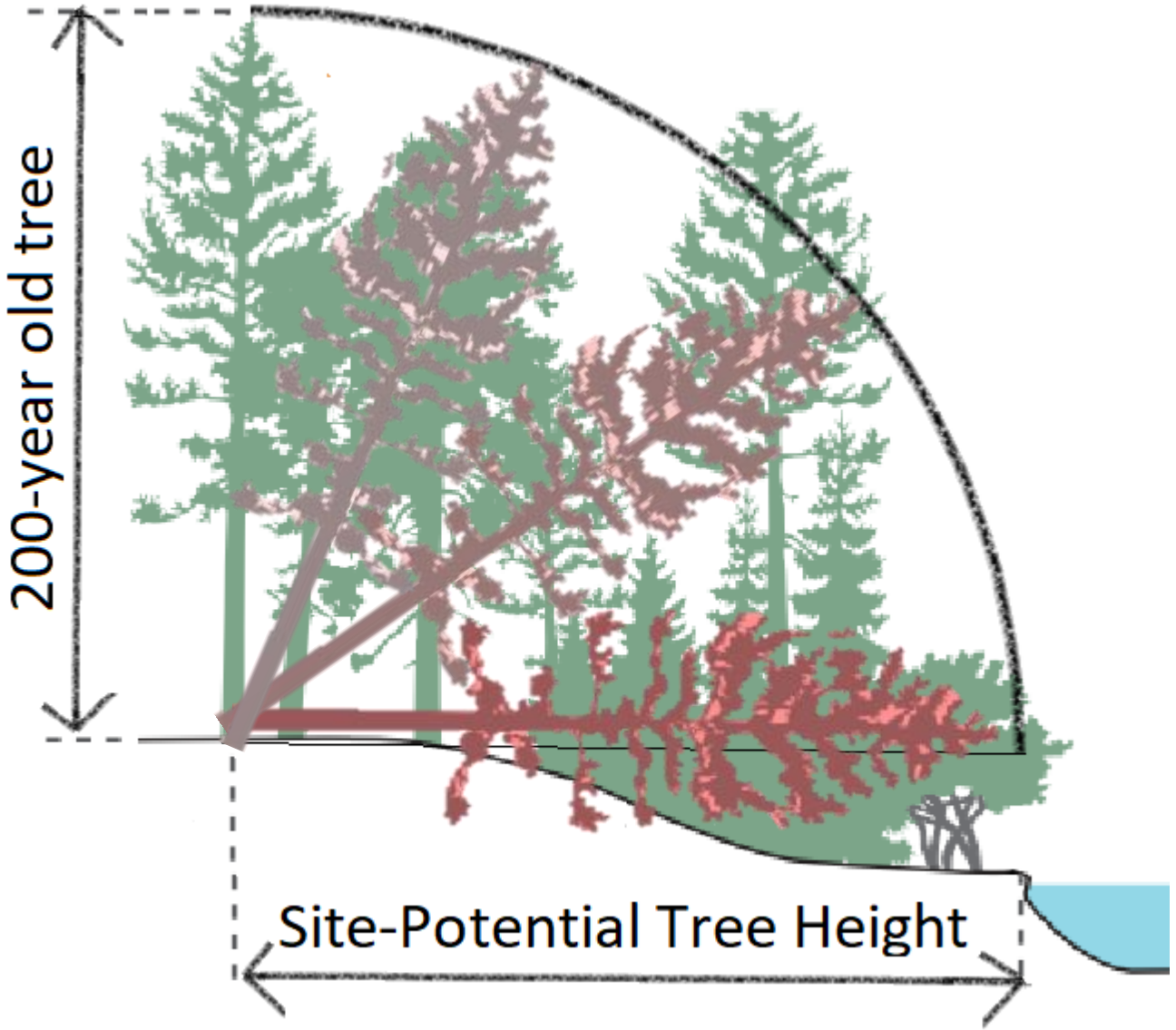
- Purpose (proviso language):

  *…assess the status of current riparian ecosystems…identifying any **gaps in vegetated cover** relative to a science-based standard for a fully functioning riparian ecosystem and comparing …[gaps] to water **temperature impairments**, known **fish passage barriers**, and status of **salmonid stocks**.*

Proviso language

"…relative to a science-based standard for a fully functioning riparian ecosystem…"

Site-potential tree height of a 200-year-old tree ($SPTH_{200}$) is the width from which full riparian functions are provided.

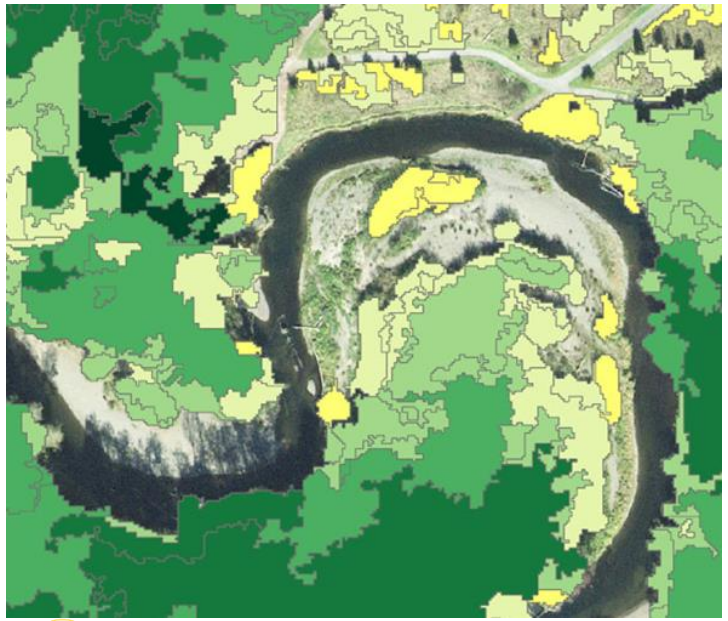


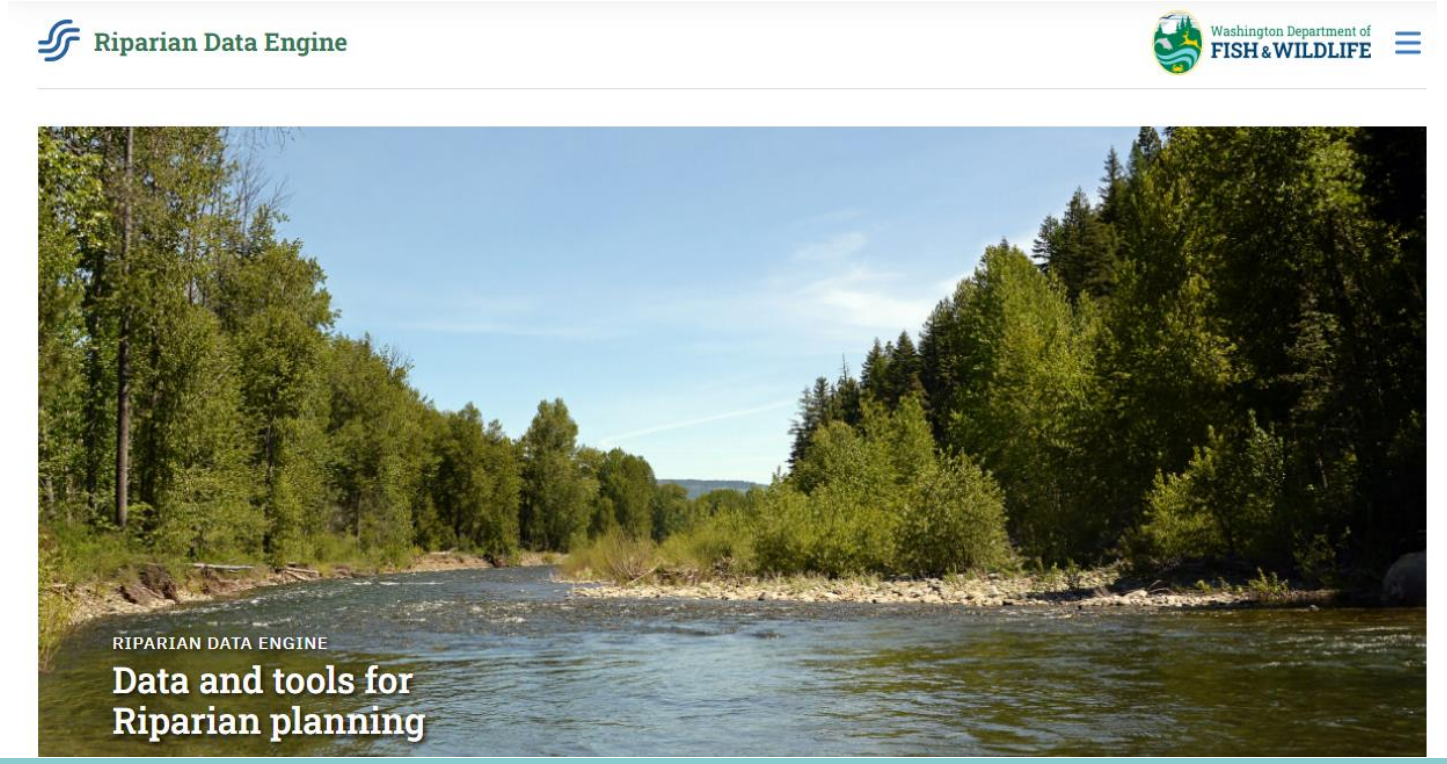
What the Two Provisos Fund

The Legislature passed two provisos for ~$1M/year for 3 years for WDFW to:

- Create new data (example: High Resolution Change Detection)
- Create a system to store, retrieve, and aggregate data (“Riparian Data Engine”)

Land cover data





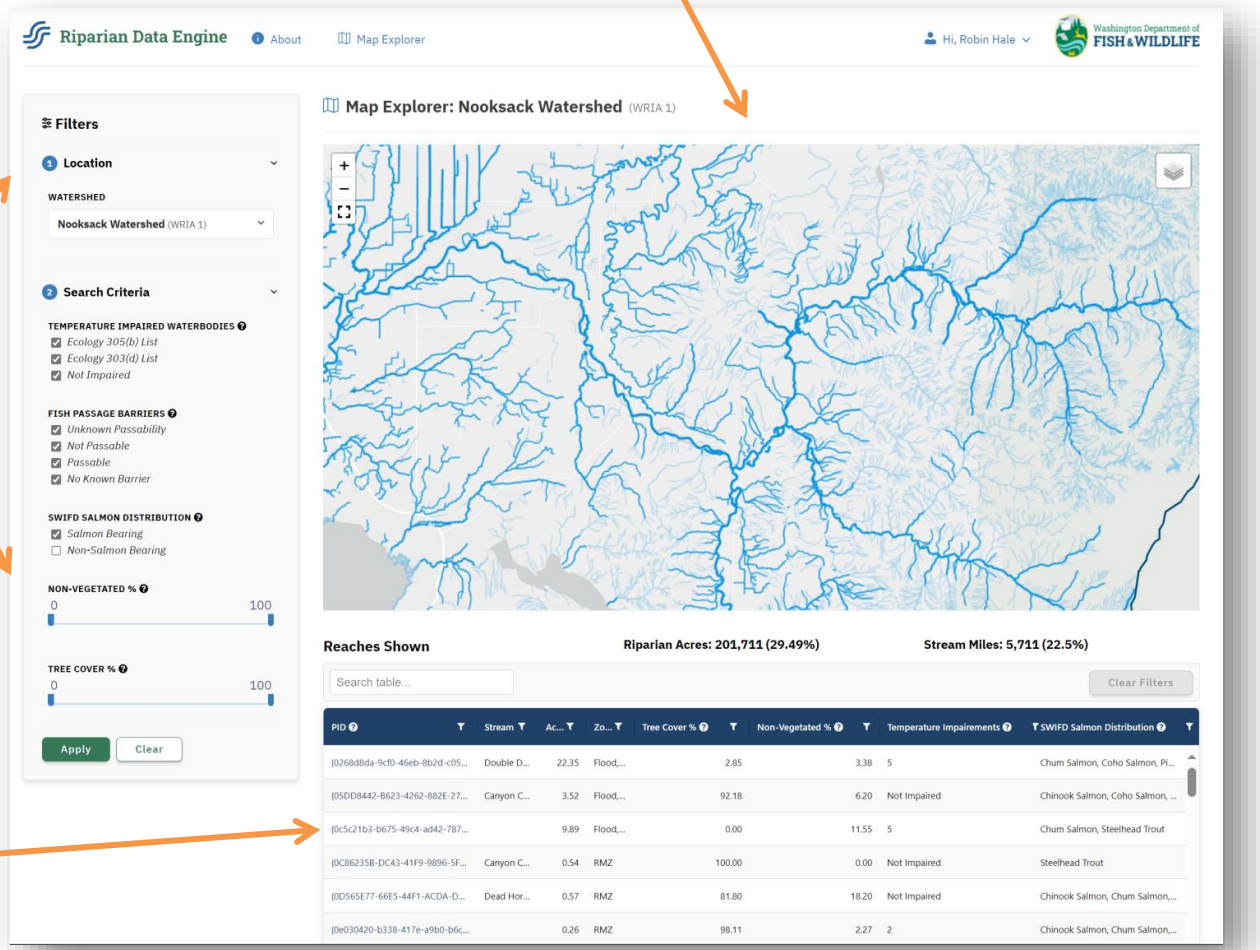
What is this Tool?

This is an online decision support tool to help users identify and prioritize riparian areas for restoration projects.

Interactive maps

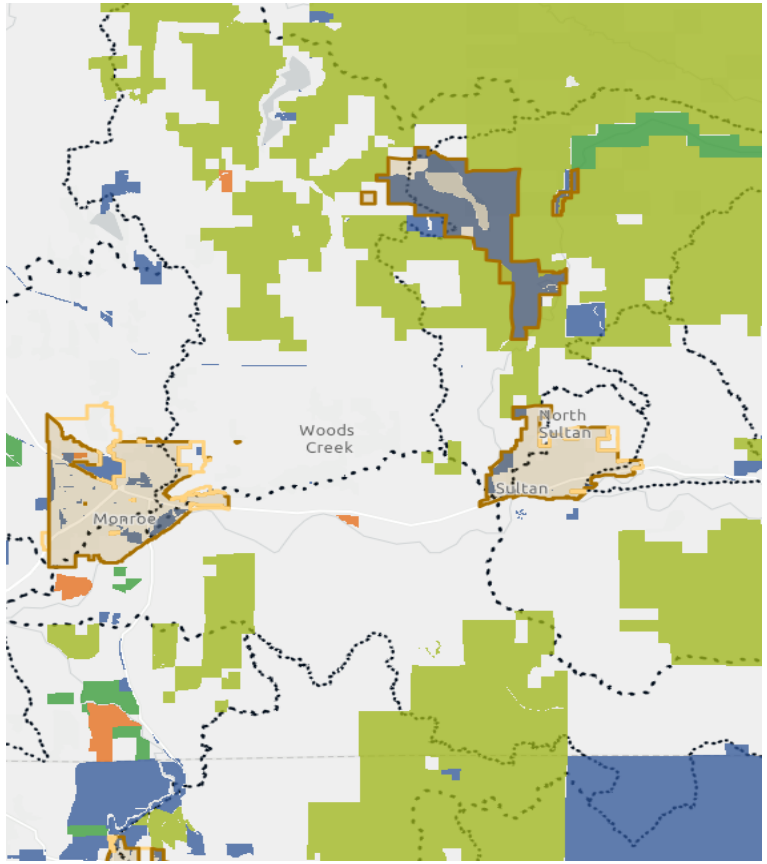
Customizable filters

Data details and summaries



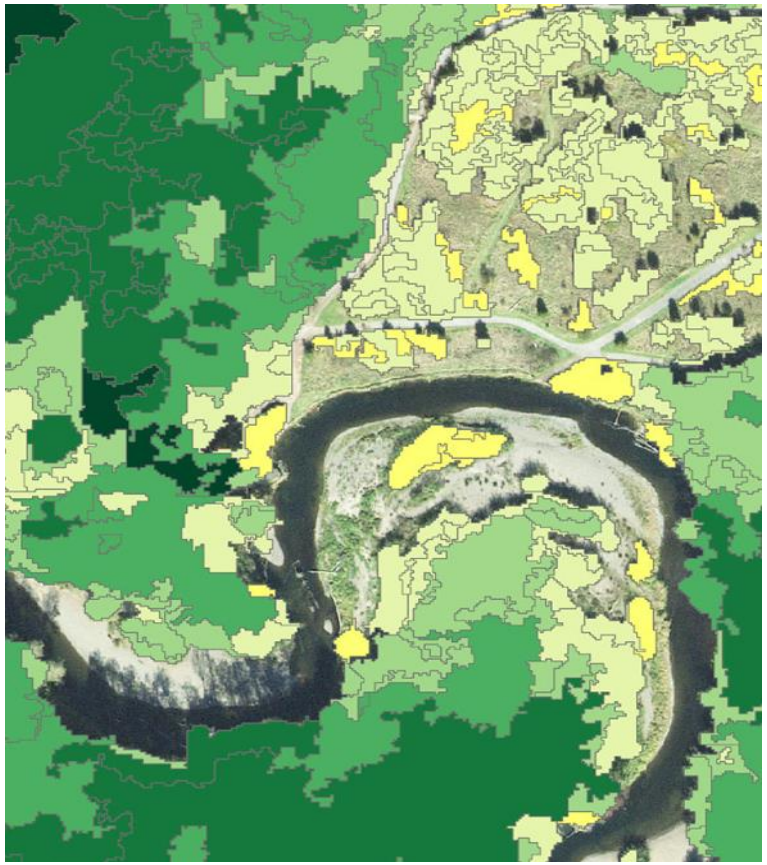
Data we are Compiling for the Tool

Boundaries: Public lands, cities, parcels, land use, watersheds…

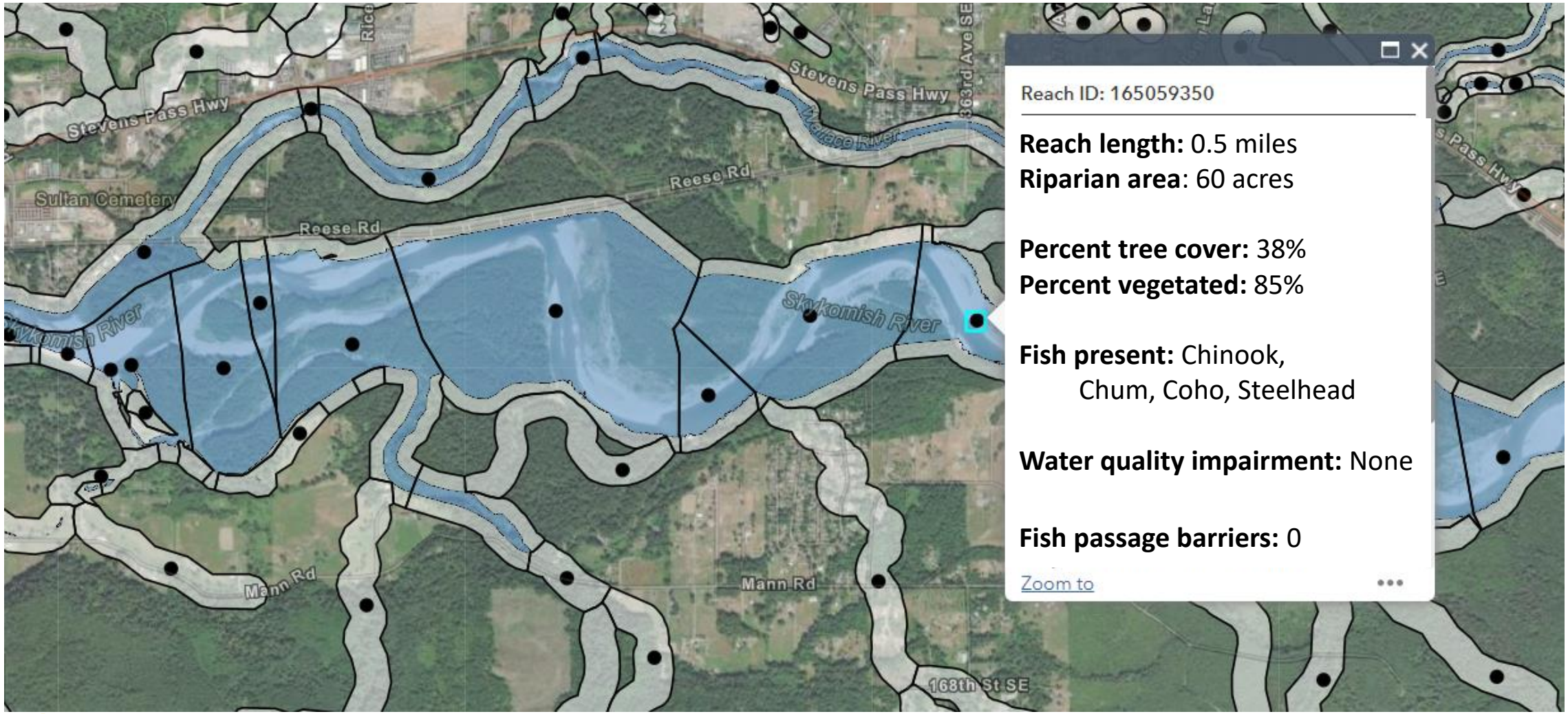


Fish & streams: Stock presence, passage barriers, water quality...

Land cover: Type (tree, shrub), vegetation height, change over time.



Riparian Management Zones (RMZs)



Land cover data & Canopy metric

Land cover

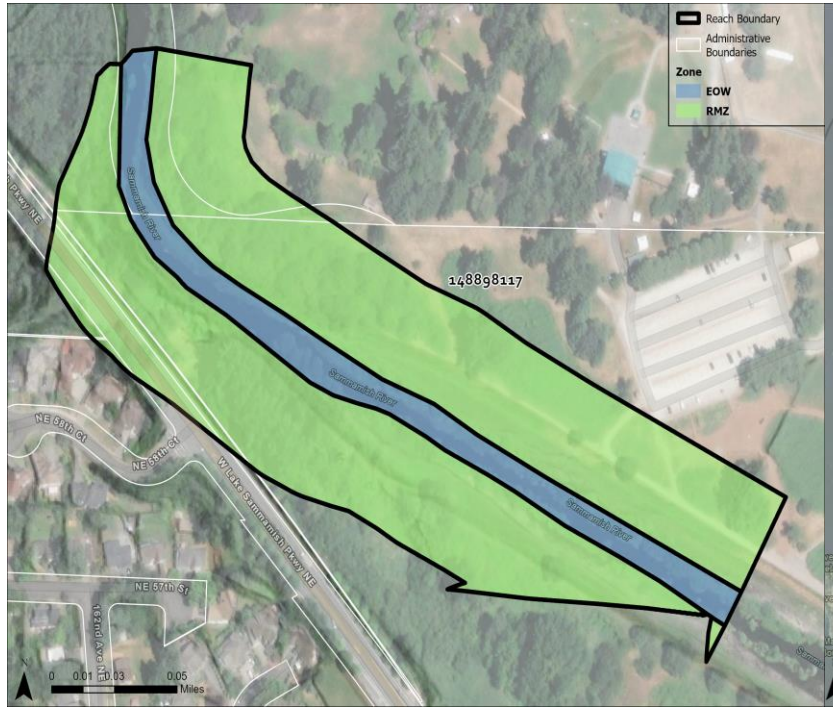
- Non-Vegetated
- Herbaceous
- Shrub
- Trees
- Open Water

Canopy metric

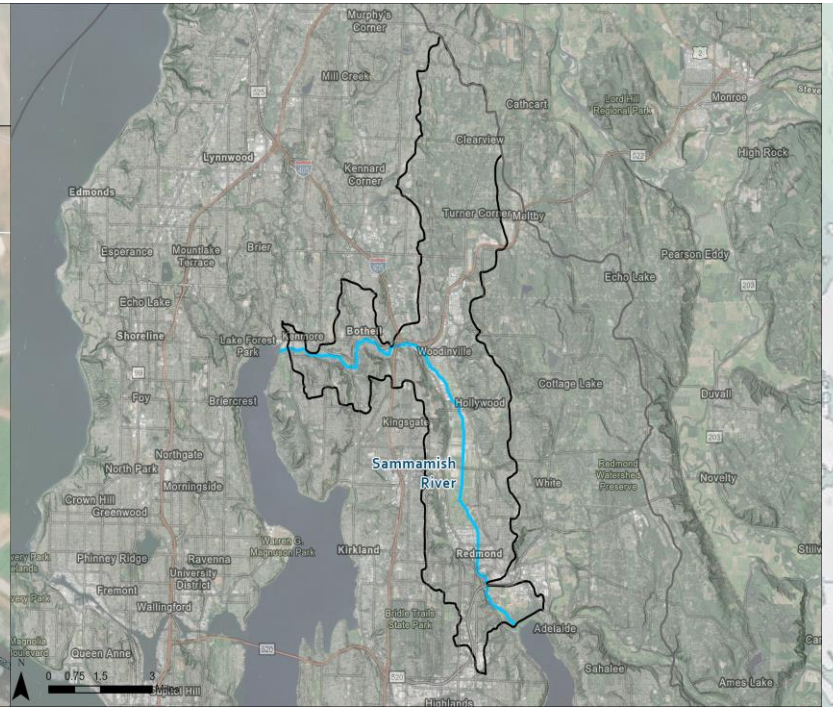
- 0.0 - 0.14
- 0.14 - 0.40
- 0.40 - 0.63
- 0.63 - 0.82
- 0.82 - 1

Showing Results at Multiple Scales

Reach

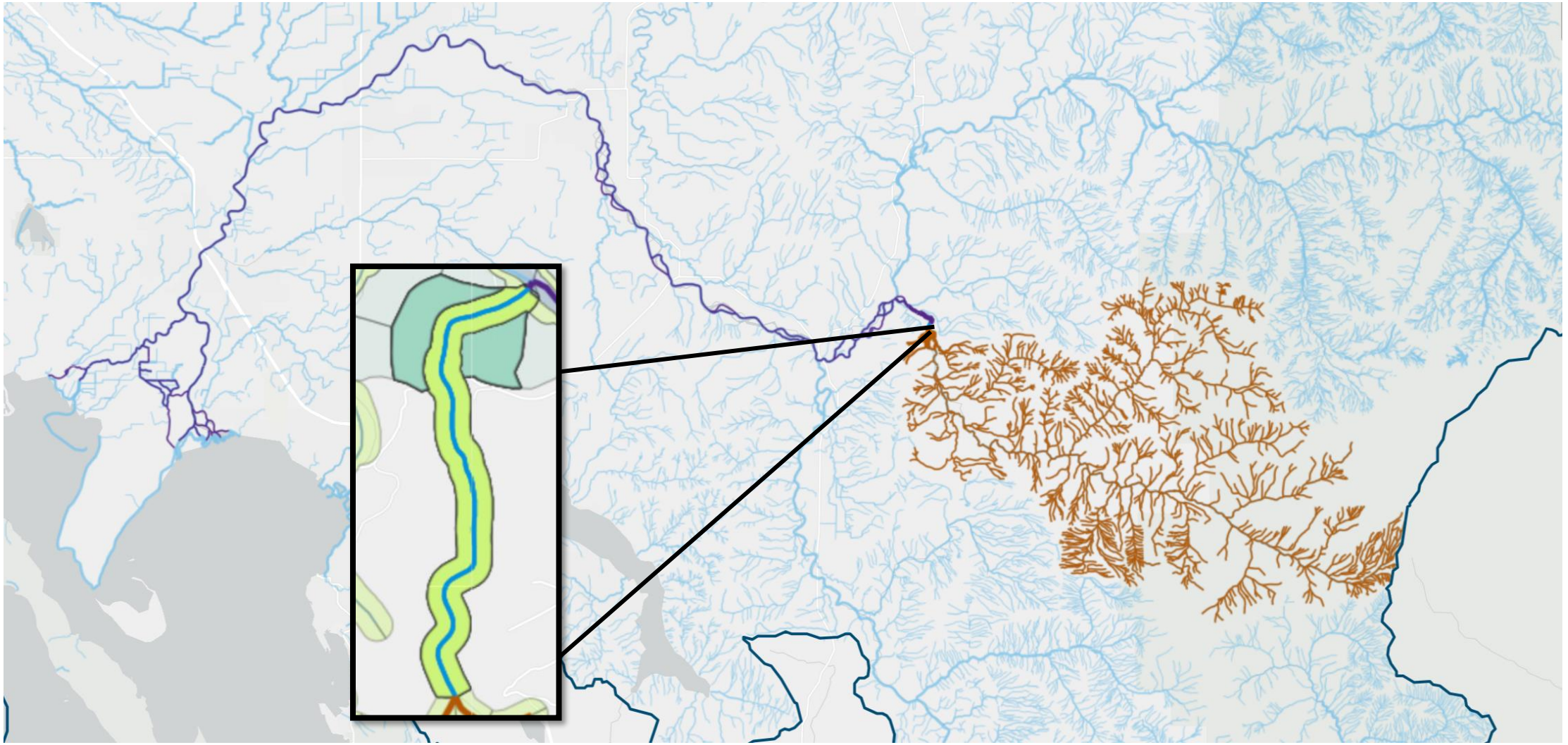


Sub-watershed or River



WRIA

Upstream/downstream connections



Department of Fish and Wildlife

Who are We Building This Tool for?

Local riparian restoration practitioners

- Salmon recovery lead entities
- Conservation District staff

Regional entities involved with riparian restoration

- Salmon Recovery Funding Board
- State Conservation Commission

Policy level: Legislature, Riparian Roundtable

How do We Anticipate This Tool will be Used?

Local riparian restoration practitioners

- Identify landowners to target with incentives
- Identify importance of opportunistic projects

Regional entities involved with riparian restoration

- Develop criteria to effectively distribute funds

Policy level: Legislature, Riparian Roundtable

- Right-size incentives to match the challenges.

How has it been Received Thus Far?

More-than-anticipated participation in workshops

- Conservation District staff
- Salmon Recovery Lead Entities
- Separate workshop for tribal leaders and their staff

We selected members of a focus group to help us build a tool that is relevant to their needs.

Building a Useful Tool: Listening to our Stakeholders

Nov 2023 — **Workshop #1**

- Introduce project
- Identify use cases
- Milestones and next steps

Feb 2024 — **Workshop #2**

- Refine personas
- Get feedback on initial design concepts

Apr 2024 — **Card Sorting Activity**

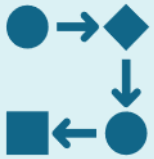
- Prioritize use cases and requirements

May 2024 — **Workshop #3**

- Present card sort findings
- Get feedback on dashboard designs and prototypes

Deliverables:


Personas

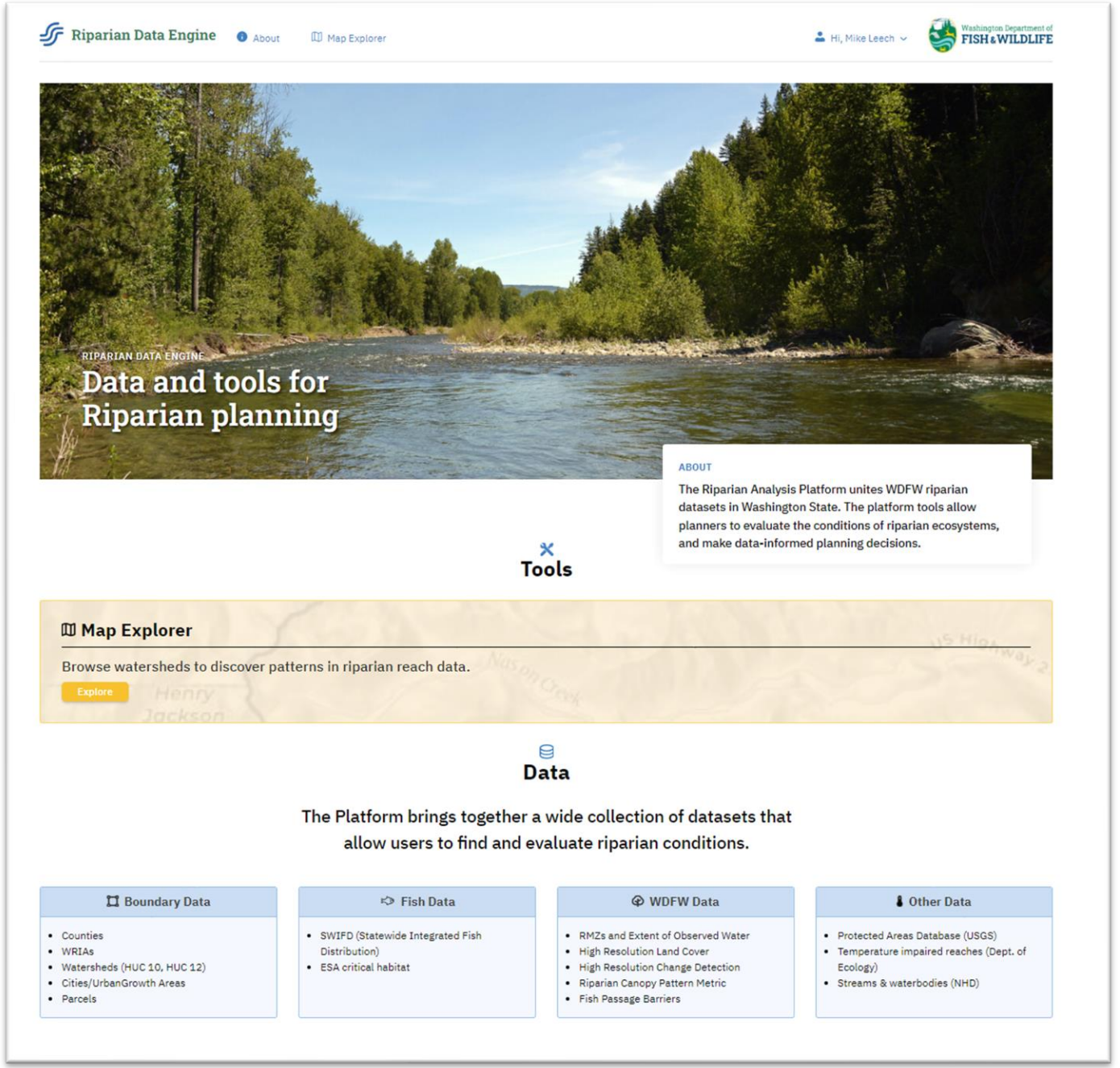

Use Cases


Requirements


Prototypes

Next Steps

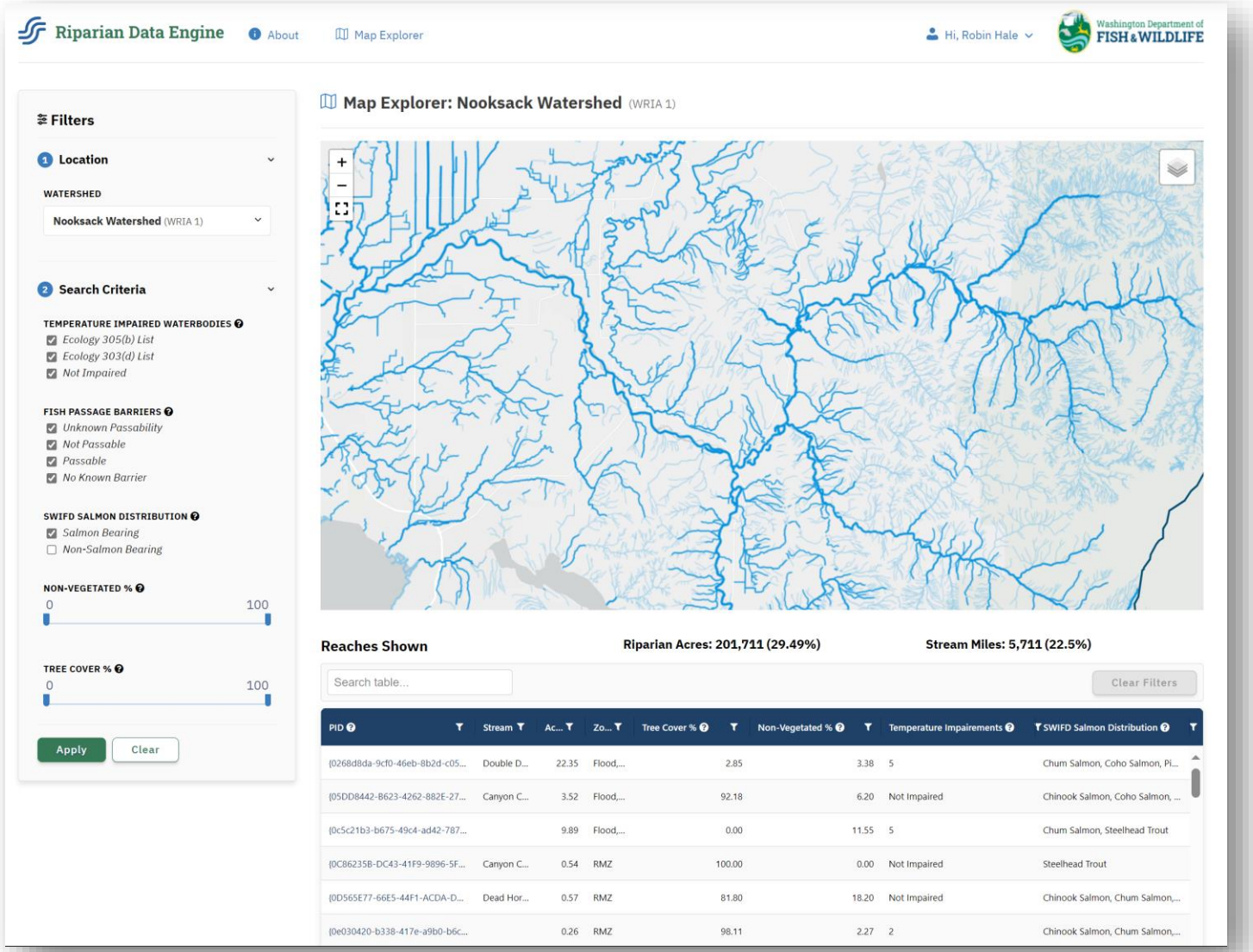
- Continued improvements
  - Additional land cover and change data.
  - Expanded analysis capabilities.
- Continue to seek feedback
  - Continue dialog with tribes and stakeholders.
  - Design it to inform key users' most critical questions.
  - Improve user interface.
- Deploy it to key stakeholders.
- Seek ongoing funding.



When will it be Ready?

We anticipate this will be available to practitioners a year from now.

Our proviso and contract with ESA runs through June 2025.



Questions and Dialog