



Regional Aquatic Prioritization and Mapping Tool (Version 1.0)

Ecotrust and the Pacific Region of the U.S. Fish and Wildlife Service (Service) partnered to develop a regional aquatic prioritization and mapping tool for Oregon, Washington, and Idaho. The tool is an online decision support system that enables the Service and other interested partners to enhance their strategic planning and program delivery of aquatic habitat conservation and restoration priorities for a wide range of fish species. The tool is the first of its kind to combine widespread species (e.g., salmon) with locally endemic species to create a landscape-scale prioritization that will aid in answering questions like: “With limited resources available, which watersheds offer the greatest opportunities for investing in fish passage improvement, fish habitat restoration, acquisition of streamflow, and so on?” and “Of these watersheds, what is their condition, vulnerability to climate change, or risk to aquatic invasive species?”

Overview

- The tool prioritizes watersheds across the three state region at the 4th-field hydrologic unit code (HUC), sub-basin scale for conservation and restoration of freshwater habitats to ensure the long-term sustainability of the region’s fish and aquatic resources.
- Ecotrust and the Service collaborated with partners already engaged in strategic, regional-scale aquatic habitat restoration including NOAA Fisheries, USDA Forest Service, U.S. Geological Survey, Climate Impacts Group, Trout Unlimited, and others to build on existing efforts, avoid duplication, and acquire input and data.
- The tool allows real-time input of parameters and output of results. The product is a landscape-scale prioritization that evaluates a wide array of watersheds for selected fish species of concern and other important considerations such as watershed condition, climate change, and aquatic invasive species.
- Interested individuals, organizations, or agencies can view and explore the priorities identified by Ecotrust and the Service, while at the same time visualizing the many datasets that support the analysis. You must be a registered user to develop customized priority scenarios.
- Tool assumptions and limitations are documented online. The tool’s architectural framework is nimble, allowing it to be easily updated as new data and information become available.
- Available under an open-source license, you are encouraged to explore the tool further at: <http://aquatic-priorities.apps.ecotrust.org/>

More About the Tool

Fish Species Included

The tool incorporates current data on 71 fish species in two categories:

Widespread Species (salmon, steelhead, trout, and Pacific lamprey)

Locally Endemic Species (burbot, Alvord chub, eulachon, Olympic mudminnow, Warner sucker, and others)

Three Parameters for Priority Setting

Three parameters are incorporated for use in regional priority setting:

1. Watershed Condition
2. Climate Change Vulnerability
3. Aquatic Invasive Species

Decision Support System

The decision support system uses a newly automated version of Marxan – the freely available conservation planning software used worldwide. The system ensures an efficient, repeatable approach to solving complex, multi-objective conservation challenges while evaluating a range of options.

Strategic Habitat Prioritization at the Landscape-scale

The tool enables development of spatially-explicit priorities and allows for real-time assessment of geographic prioritization outcomes, based on adjustment of key parameters.

To log-in, go to: <http://aquatic-priorities.apps.ecotrust.org/>

The tool uses the Google Earth interface and allows you to zoom in, pan, and query a variety of data sources. In order to run the tool, you must have the Google Earth plugin for web browsers installed on your computer. Once logged in, click on the image, below, with your cursor and acknowledge that you understand the purpose and limitations of the Tool and are ready to begin by clicking OK.



Proceed to the Regional Aquatic Prioritization and Mapping Tool

Read more about the Tool, its data sources, methods, and documentation. Begin exploring today!

Welcome to the Regional Aquatic Prioritization and Mapping Tool

An aquatic priorities decision support system for Oregon, Washington, and Idaho developed by Ecotrust and the US Fish and Wildlife Service.

Please read the detailed [documentation](#) to gain an understanding of the purpose, limitations and products associated with this tool. All users are able to view priorities, pan and zoom using the map tool and explore input data sets pertaining to aquatic species as well as inputs into the climate change, watershed condition and aquatic invasives analyses. Registered users sign in by clicking on the 'sign in' menu in the upper right hand corner.

Review Regional Aquatic Priorities

The map to the right represents regional aquatic priorities identified by USFWS using this decision support tool. On this map, the darker areas represent those areas that are considered high priority. For additional information on how these priorities were created the detailed [documentation](#).

Click the "data and priorities" tab at the top of this page and there you will see the priorities layer at the top of the tree view under the "Regional Priorities" heading. You can click on each sub-basin in the map for additional information specific to the level of importance, sub-basin name and area and prioritization constraints such as vulnerability to climate change, watershed condition and vulnerability to aquatic invasives.

Explore data inputs

Also available to explore are data used to generate the priorities including species specific information and watershed factors related to climate change, watershed condition and aquatic invasives. These data are under the heading "Priorities input data". To explore these layers, click on the arrow next to the heading and a tree view will expand exposing the layers. Click on the check box next to the desired layer and you will see it appear on the map. Many of these data are imbedded in subsequent sub-folders. For additional information on any of these data layers, please see the [data dictionary](#).

Contacts

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