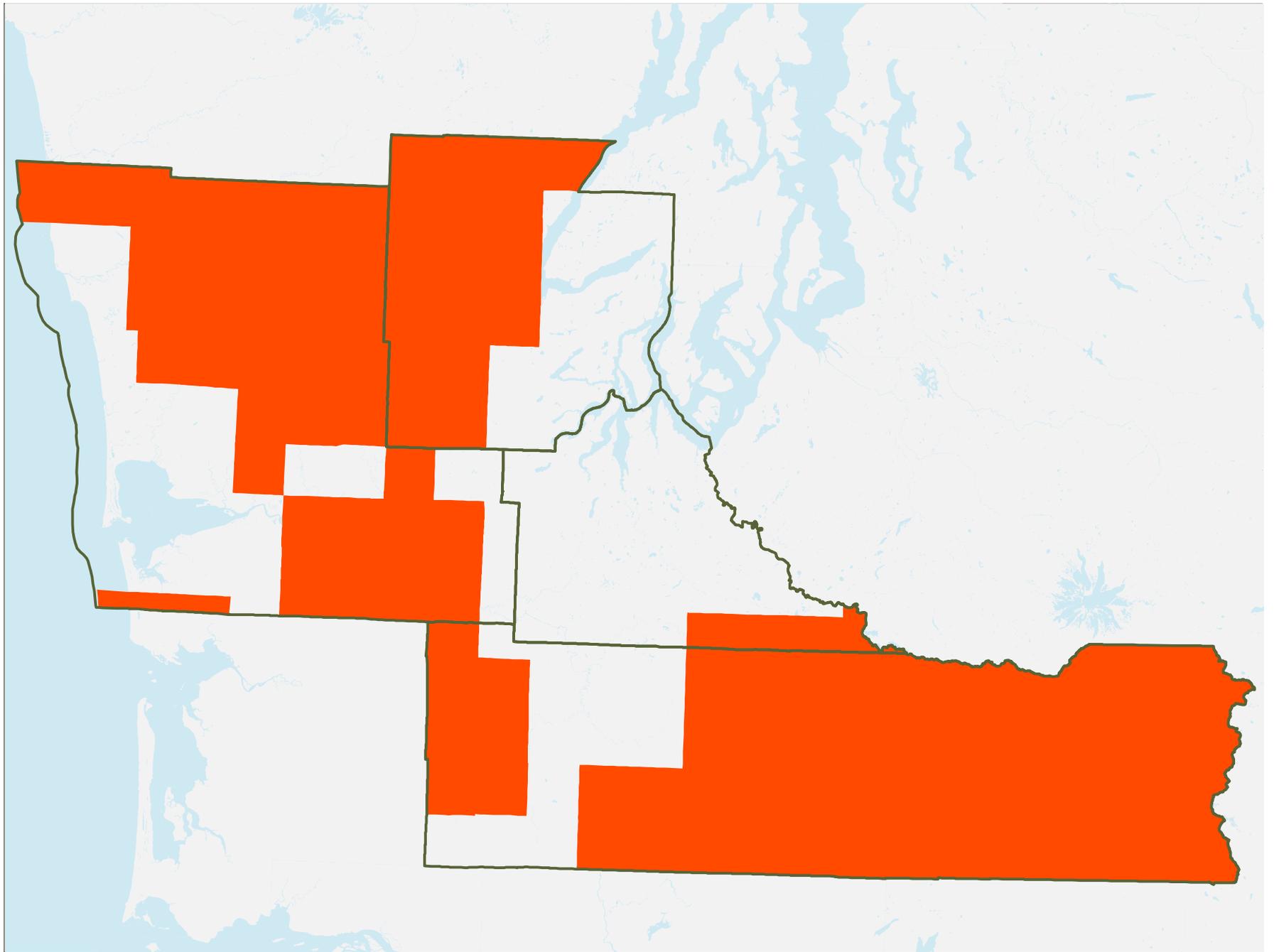


# Northern Spotted Owl

Northern Spotted Owl habitat is found in the forested regions of Grays Harbor, Lewis, and Mason Counties. A small area of habitat is located on the southern border of Thurston County, as well. Federal listing status is Threatened.





# Birds

## **Marbled Murrelet**

The Marbled Murrelet is a seabird that can be found throughout the seasons in Washington, with wide distribution across the Study Area. Habitat is found in all counties. Federal listing status is Threatened.

## **Western Snowy Plover**

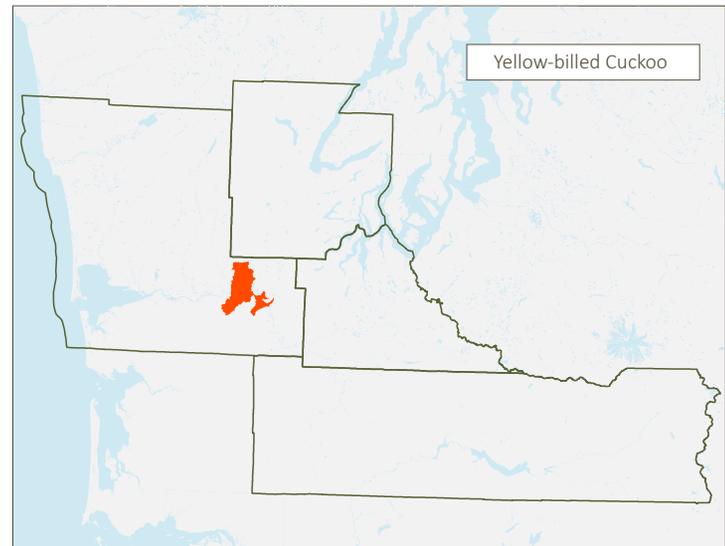
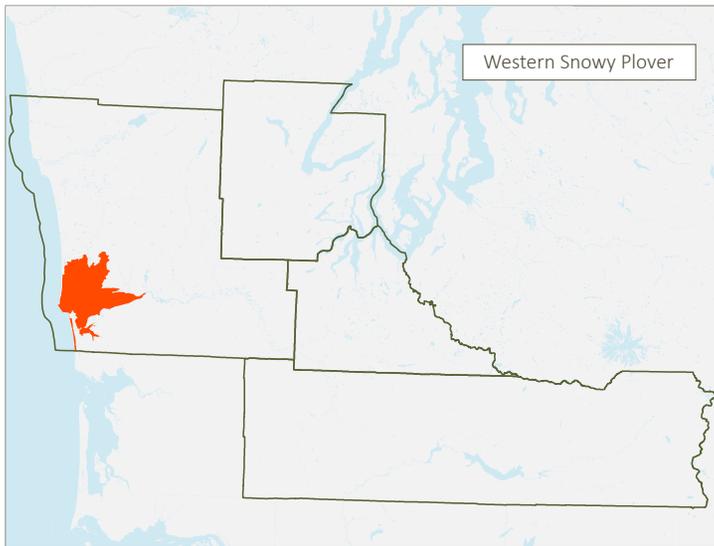
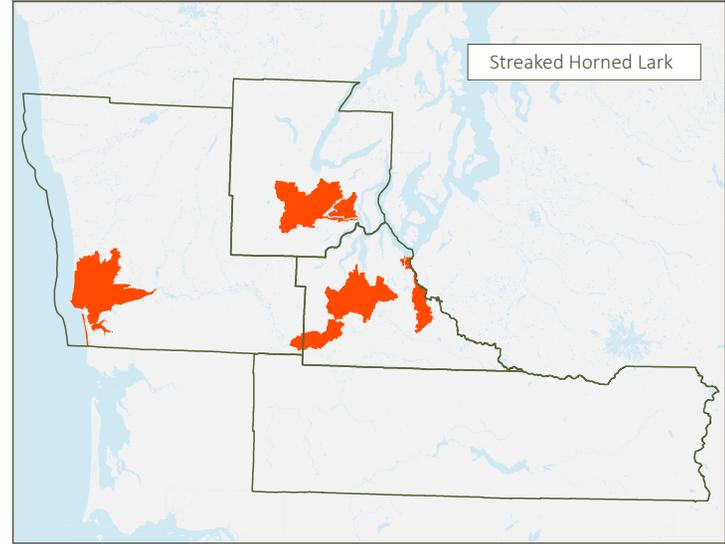
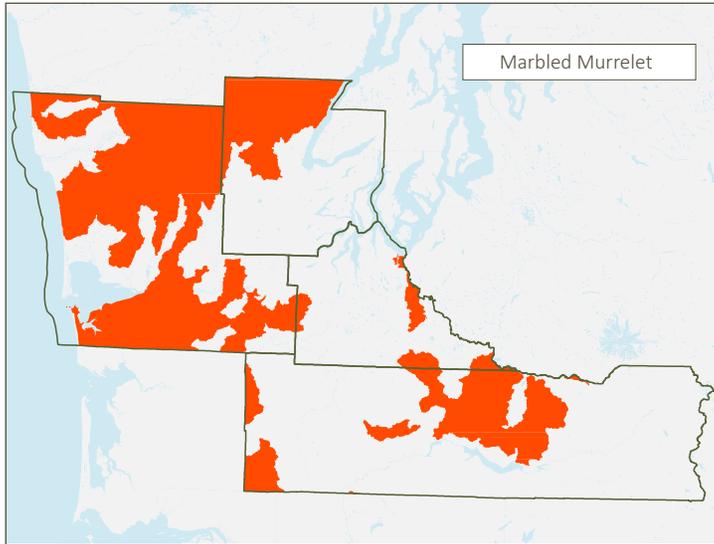
Within the Study Area, the Western Snowy Plover habitat range is found exclusively in a coastal area of Grays Harbor County. Federal listing for the species is Threatened; Washing State listing for the species is Endangered.

## **Streaked Horned Lark**

The Streaked Horned Lark is a partially migratory bird species, with habitat found in sparsely vegetated grasslands. Habitat is found in parts of Grays Harbor, Mason, and Thurston Counties. Federal listing for the species is Threatened; Washing State listing for the species is Endangered.

## **Yellow-billed Cuckoo**

Yellow-billed Cuckoo habitat is found in a small portion of inland Grays Harbor County, surrounding the Chehalis and Satsop Rivers. The bird species habitat is primarily riparian. The 2017 Draft Status Report for the Yellow-billed Cuckoo in Washington by the Department of Fish and Wildlife recommends an Endangered listing for the bird species. Federal listing status is Threatened.

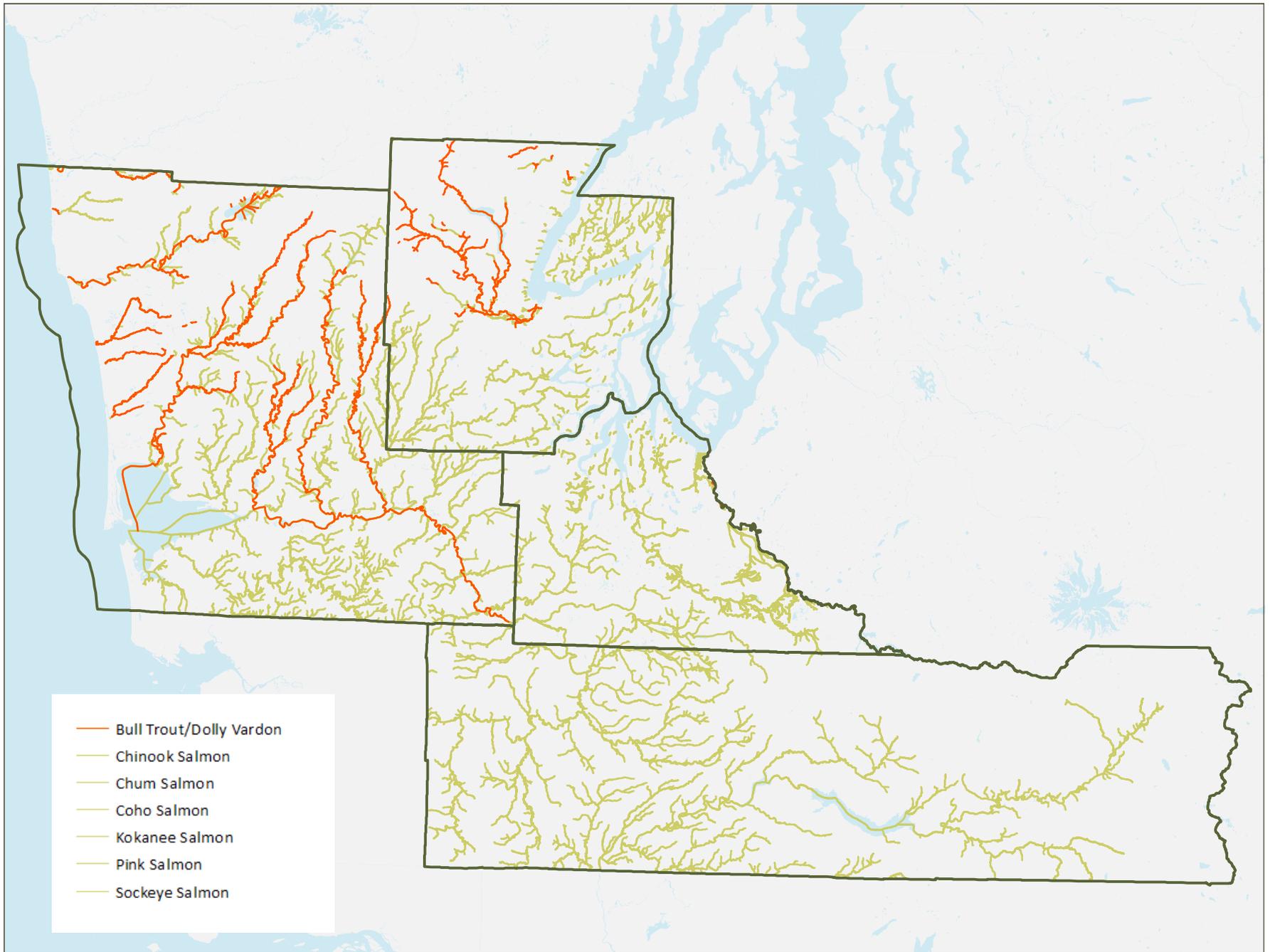


# Salmon-bearing Streams

Salmon-bearing streams are an important conservation element in western Washington. Land stewardship at the riparian edge is critical for salmon species habitat maintenance. The streams which contain Bull Trout or Dolly Vardon fish species, primarily found in Grays Harbor County and Mason County, are given conservation priority. The fish are federally-listed as Threatened.

Additionally, the following types of salmon which spawn in the streams throughout the Study Area include: Chinook, Chum, Coho, Kokanee, Pink, and Sockeye.

Using salmon-bearing streams data also delineates land which may be prone to flooding, for which agricultural uses over other land uses may be preferred.



# Grasslands and Oak Woodlands

## Rare Plants and High Quality Ecosystems

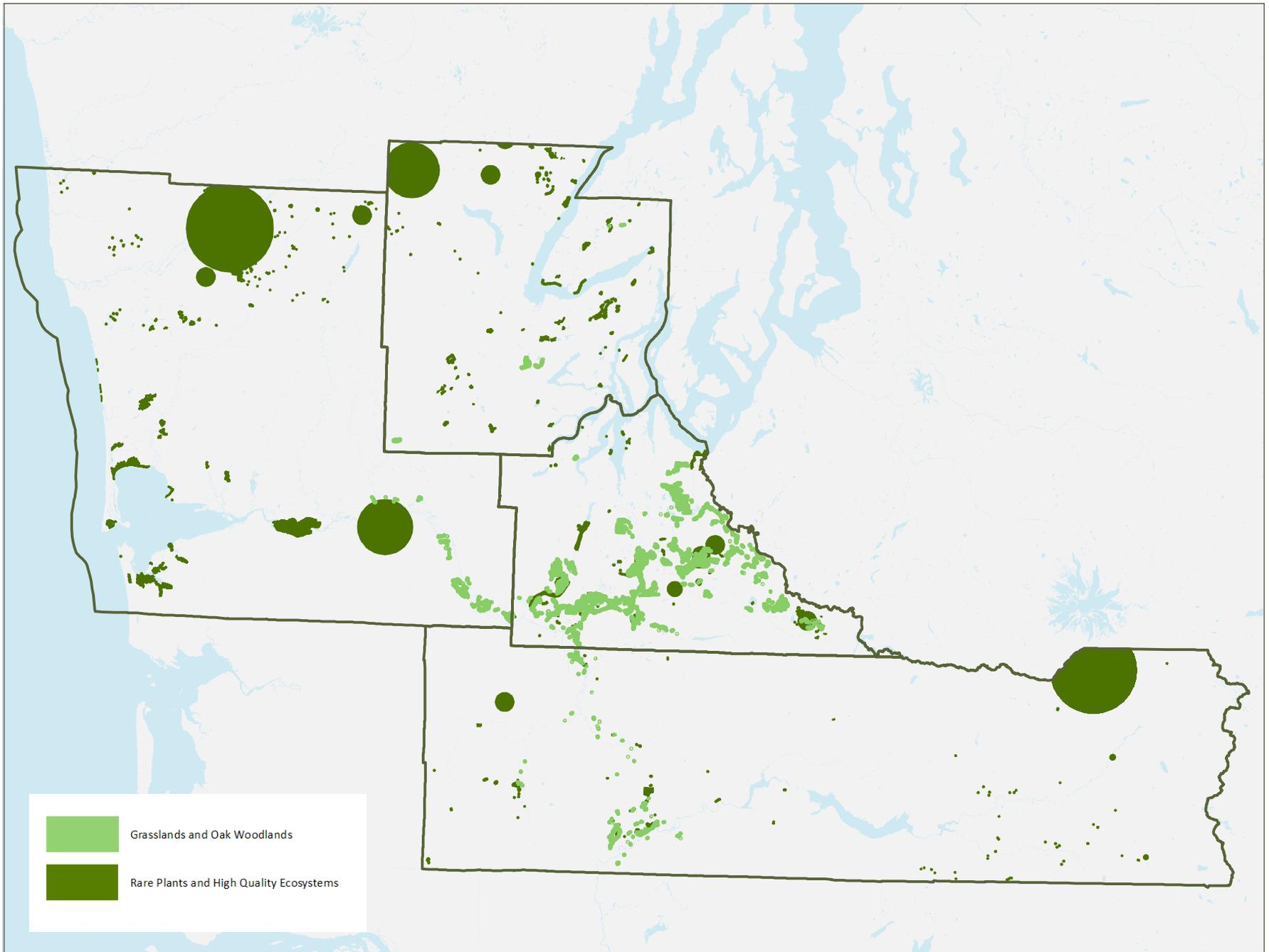
### **Grasslands and Oak Woodlands**

According to the Washington State Department of Natural Resources (2008), grasslands and oak woodlands native to the Puget Sound Lowland are among the most imperiled ecosystems in western Washington, and contain habitat for flora and fauna species of concern.

Native grasslands and oak woodlands are found in the vicinity of agricultural activity in the four counties of the Study Area, but are predominant in Thurston County.

### **Rare Plants and High Quality Ecosystems**

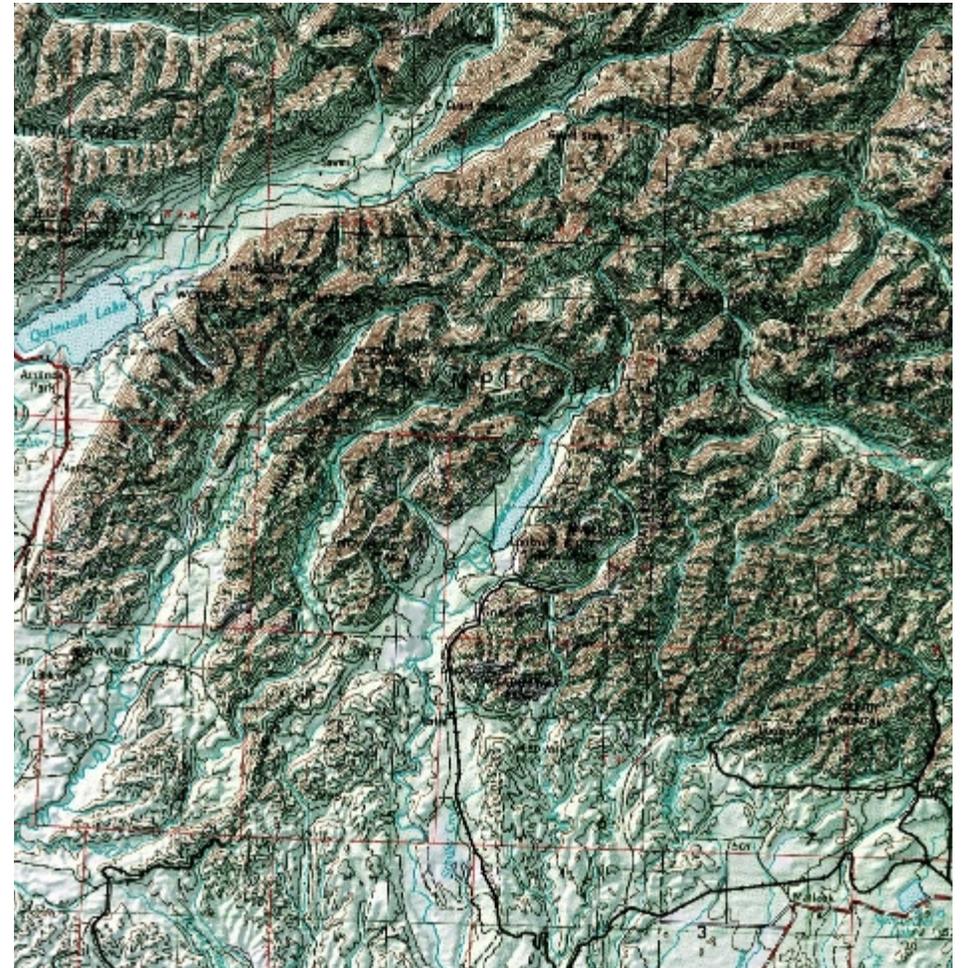
These data sets are maintained for the Washington Natural Heritage Program, and identify sites which are rich in biodiversity. The elements included are rare vascular plant species, rare non-vascular plant species (such as moss, lichen, or fungus), terrestrial ecosystems of special concern, and wetland or aquatic ecosystems of special concern. The locations of rare plant populations are included as general areas-of-concern, and high-quality terrestrial and wetland ecosystems are included as precise locations. The elements occur throughout the Study Area.

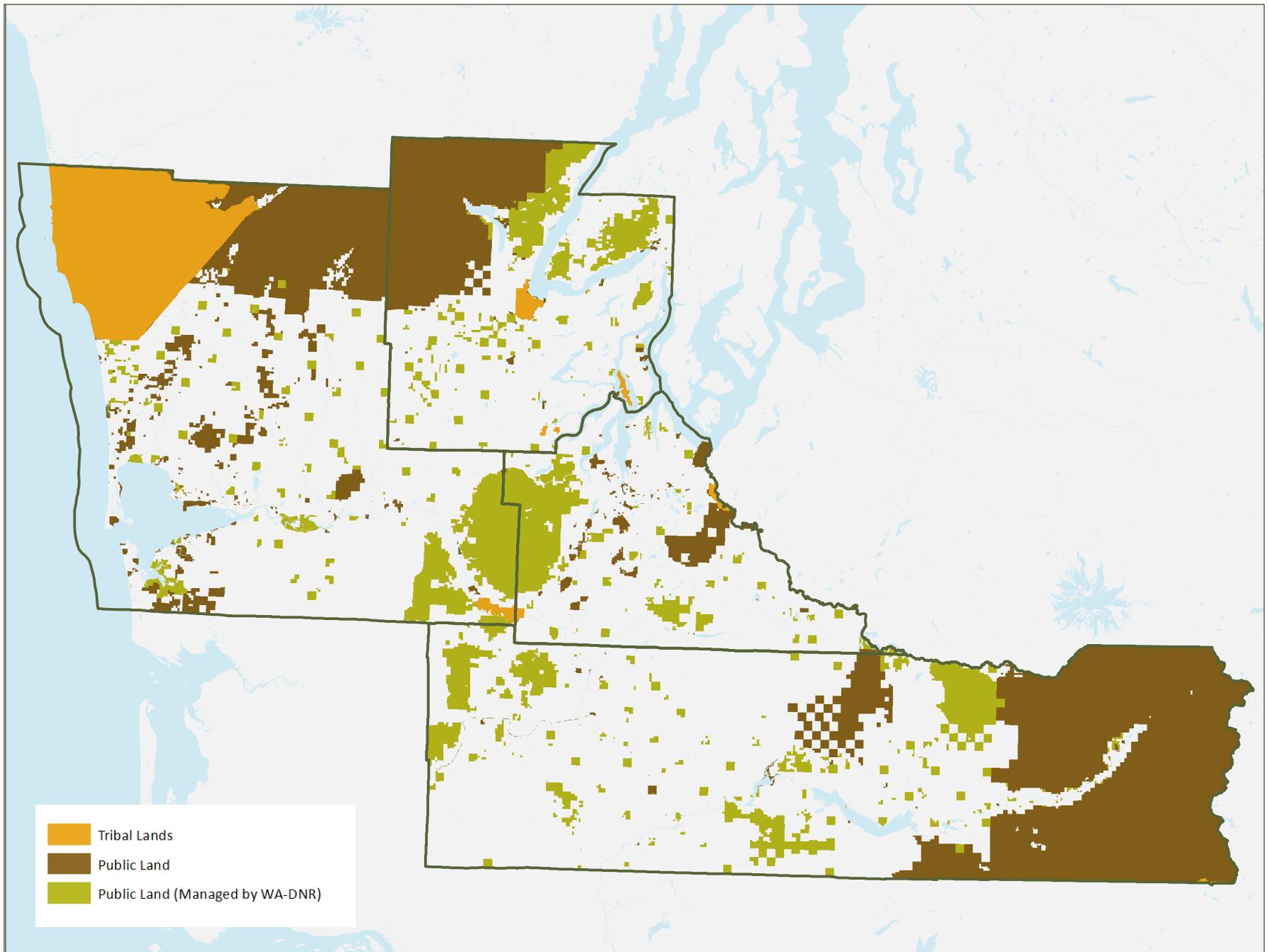


# Connectivity

Public and tribal lands include parcels with federal, state, county, city, and tribal administrative ownership. These parcels have been excluded from the findings for priority conservation areas and, therefore, excluded from acquisition consideration. However, the privately-owned parcels that are adjacent to these lands have the potential to increase open space connectivity, improving opportunities for the movement of plant and animal species around the landscape.

Public and Tribal Lands include the following categories: Tribal Lands (Chehalis, Nisqually, Quinault, Skokomish, Squaxin, and Yakima Tribes), Public Land (Federal, State, County, and City), and Public Land which is managed by the Washington State Department of Natural Resources.

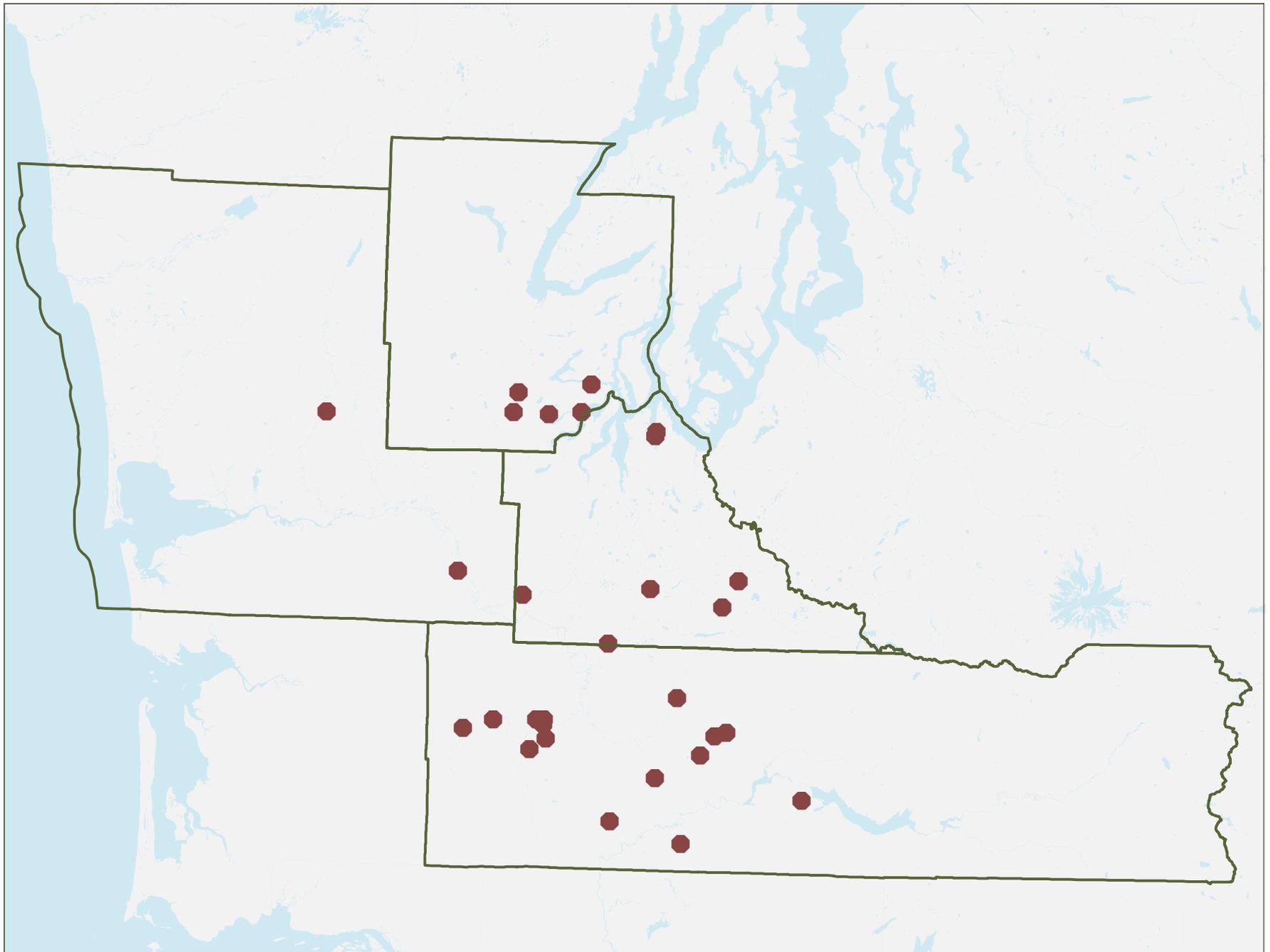




# Heritage Barns

The Heritage Barn Register is maintained by the Washington State Department of Archaeology and Historic Preservation. There are a total of twenty-nine (29) Heritage Barns found across the Study Area, with more than half of the barns located in Lewis County.





# Scenic Highways

## Public Trails

### **Adjacent to Scenic Highway**

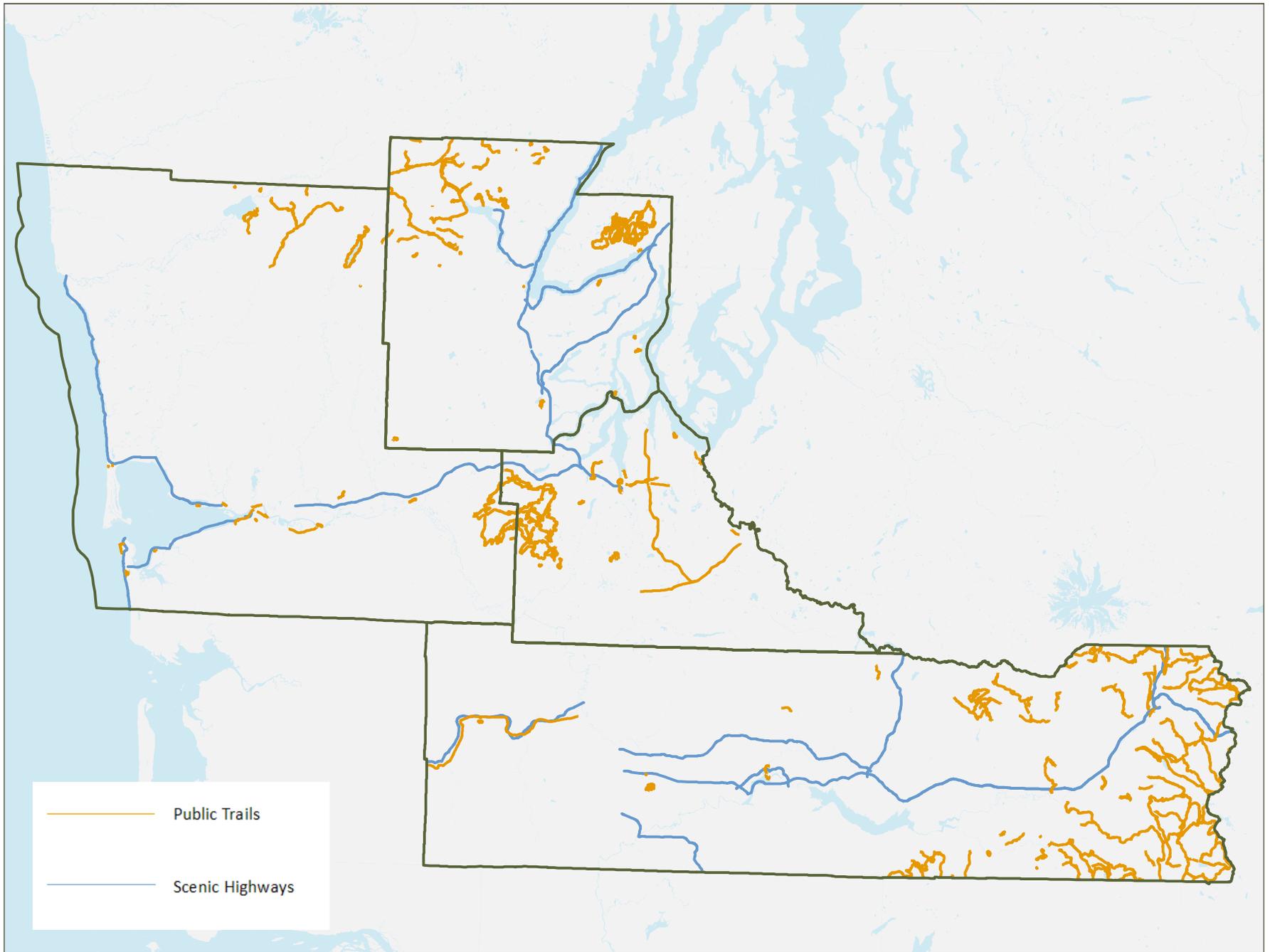
Farmland and open space conservation contributes to an attractive landscape. Acquisitions along Scenic Highways create additional value to the public by preserving views and maintaining cultural and historic landscapes.

Scenic Highways are found in each of the four counties, and include the following State Routes: SR 5, SR 12, SR 101, SR 105, and SR 109.

### **Adjacent to Public Trail**

Federal, State, County, and Local trails are found throughout the Study Area. Conservation along these routes benefit the public by maintaining the scenic landscape for the enjoyment of trail users. Land protection along public trails increases acquisition project visibility, as well.





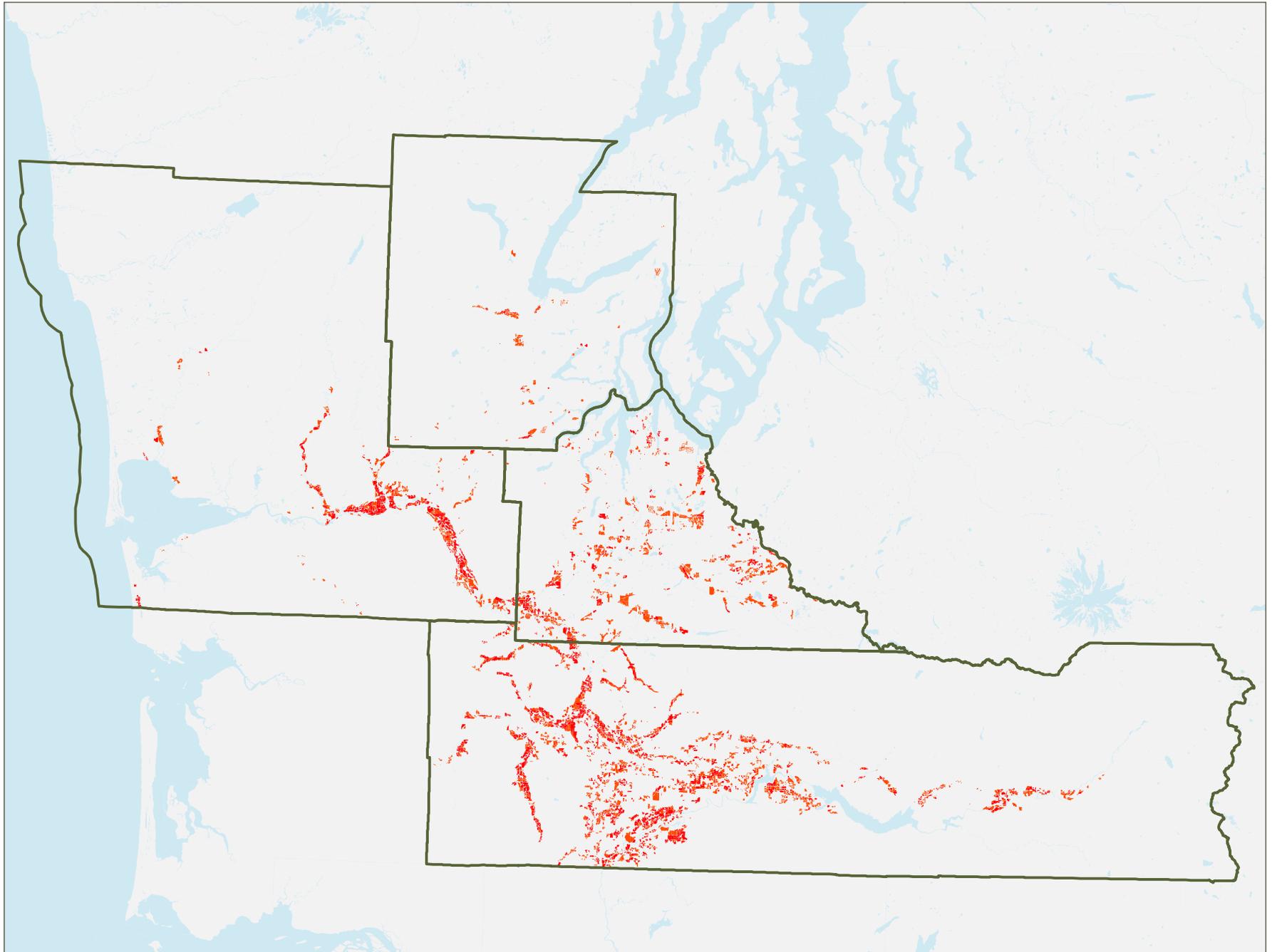
# Crop Productivity and Local Food Production

The data sets on crop production in the Study Area are important for evaluating the current public value provided by productive farmland, in addition to the indications for agricultural viability. Conservation activities in areas with existing agricultural activity will help to support local agriculturally-based economies as well as contribute to the local food system. Fields delineated as Market Crops are weighted most heavily under the assumption that those diverse farming operations have the greatest potential for sale in local markets, contributing to community health and wellbeing.

The agricultural goods included in the crop categories are as follows:

- Market Crops – fresh market crops of agricultural goods, with alternating rows of a variety of crop types
- Other Food Crops – Berry, Cereal Grain, Orchard, Shellfish, and Vegetable Crops
- Other Crops – Commercial Tree, Flower Bulb, Green Manure, “Herb” (including Hops and Marijuana), Nursery, Seed, Pasture, Turfgrass, Vineyard, and Other
- Hay/Silage





# Results

There are 294,215 parcels included in the Study Area. The potential score range for these parcels is between 0 and 42; the actual scores range between 0 and 25, with a median score of 10. Taken together, there are 303 total parcels with a score greater than 20 (approximately one (1) percent of total parcels). Collectively, the highest-scoring parcels total approximately **23,050 acres**. These highest-scoring parcels represent three of the four counties in the Study Area: **Grays Harbor County, Lewis County, and Thurston County**.

Conservation Criteria Total Score Ranges and Results	
Score Range Potential	0 - 42
Score Range Actual	0 - 25

Of the highest scoring parcels, 15 are located in Lewis County; 121 are located in Thurston County; and, 167 are located in Grays Harbor County. A total of five (5) parcels have the highest score of 25, of which three are located in Thurston County and two are located in Grays Harbor County. There are no parcels in Mason County which score above 20.

## Agricultural Values

A majority of the highest-scoring parcels, parcels (85 percent), contain Prime Farmland-classified soils, and parcels range in size from less than half an acre to nearly 650 acres. All parcels are located within 7 miles of an Urban Growth Boundary, with 60 parcels located within or adjacent to an Urban Growth Boundary.

## Environmental Values

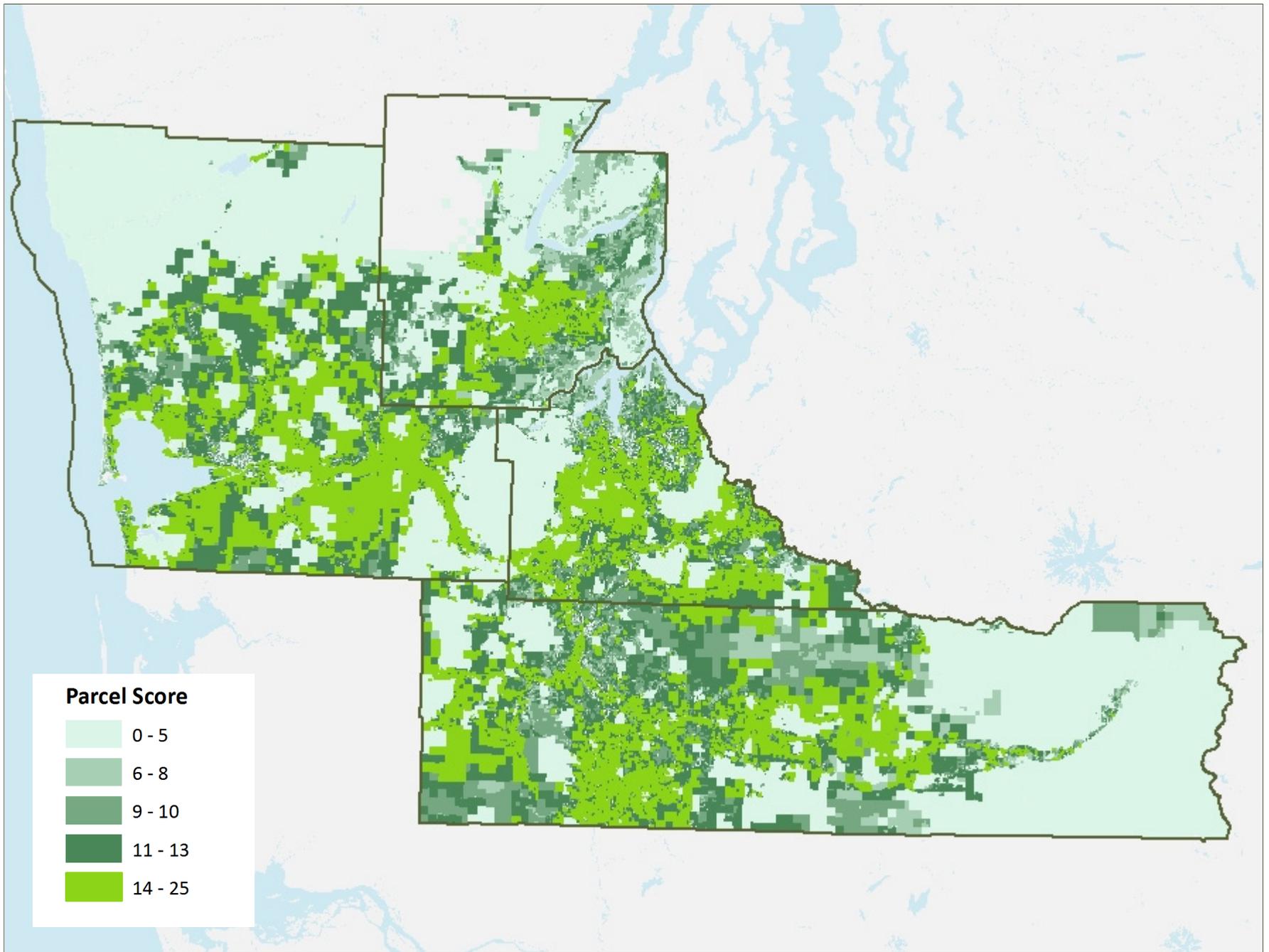
Of the 303 highest-scoring parcels, most contain observed critical habitat for at least one listed species, and the majority (80 percent) contain habitat for three species. Less than 10 percent of the highest-scoring parcels have habitat for one species or fewer.

Native grasslands or oak woodlands are found in approximately 25 percent of the parcels. The parcels are nearly evenly split between the occurrence rare plants or high-quality ecosystems, more than half of the parcels are adjacent to salmon-bearing streams, and fewer than half of the parcels are adjacent to public or tribal lands.

## Cultural Values and Priorities

One of the parcels, located in Lewis County, contains a Heritage Barn. Of the 37 parcels located adjacent to a scenic highway, the majority are found in Grays Harbor County. The 22 parcels located adjacent to public trails are located in either Grays Harbor County or Thurston County.

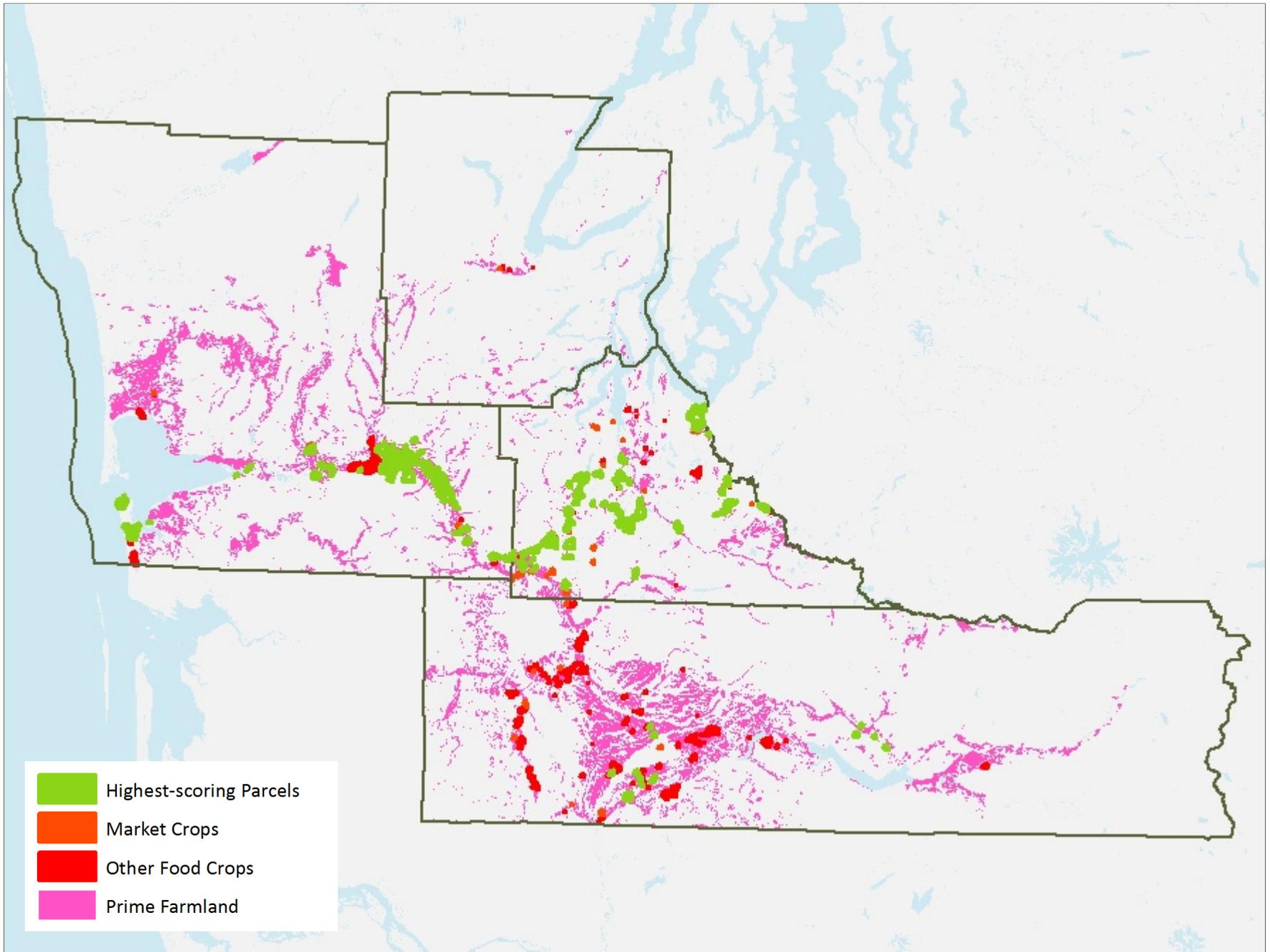
Regarding crop productivity and local food production, there are 15 parcels which currently (as of 2016) contain Market Crops, and another 38 parcels growing Other Food Crops. Nearly one-third of the parcels are not currently agriculturally productive.

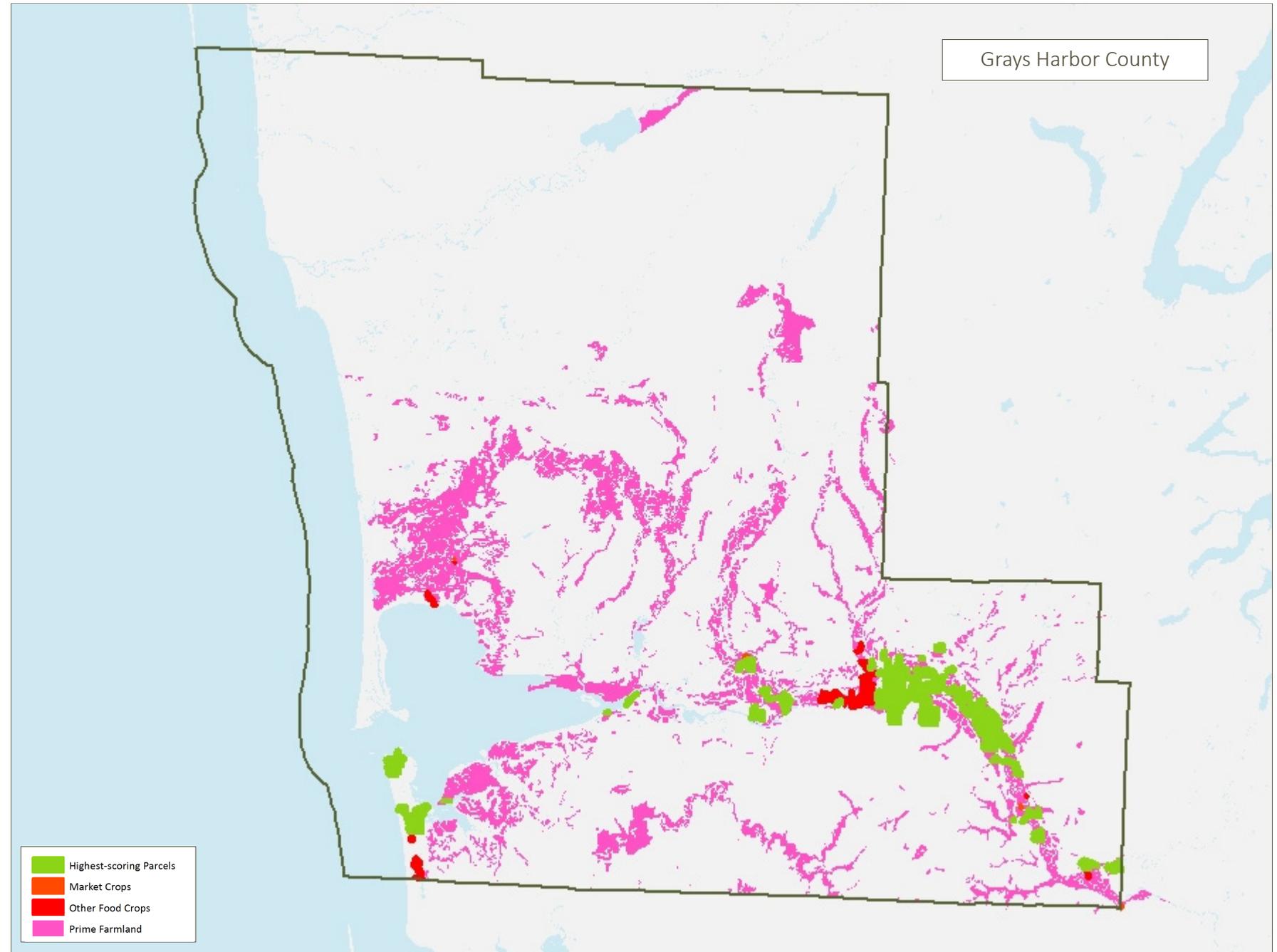


The map on the previous page shows the highest scoring areas, representing almost 30,000 parcels, or approximately 10 percent of all parcels in the Study Area.

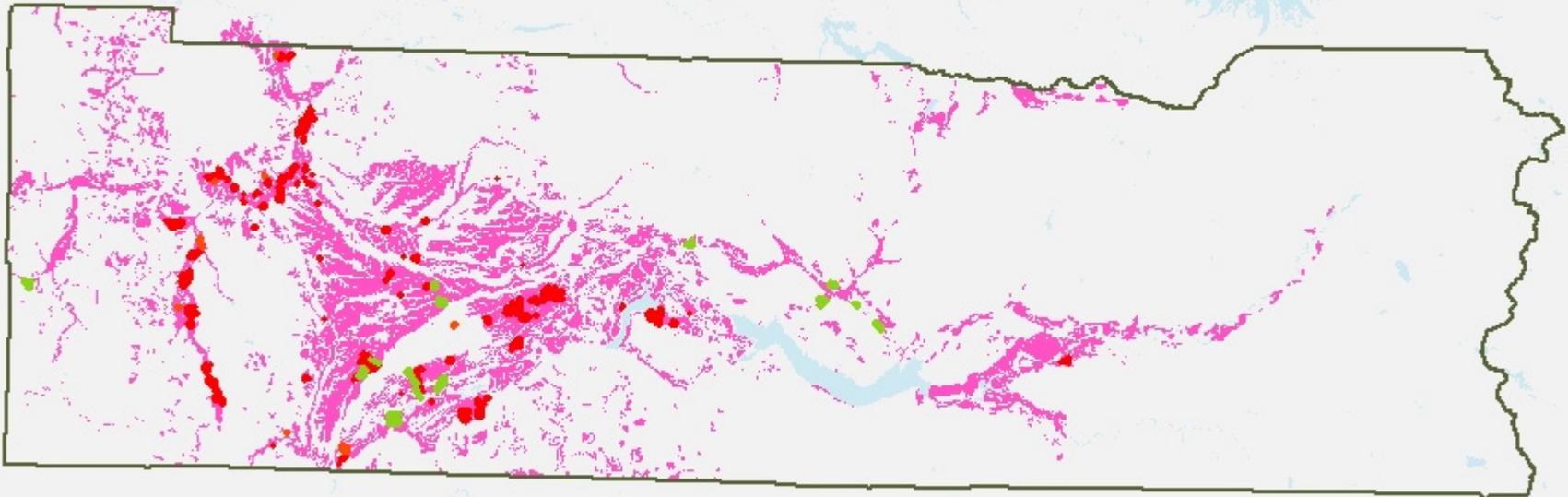
The map to the right displays the 300 highest-scoring parcels. This map highlights the occurrence of Market Crops, Other Food Crops, and Prime Farmland in order to frame these high-scoring parcels in relation to the surrounding agricultural landscape.







Lewis County



Thurston County



# Discussion

# Data Sources

## Soil Type

U.S. Department of Agriculture Natural Resources Conservation Service and Esri Landscape Team. (2015). Soil Survey Geographic Database (SSURGO). Retrieved from <http://www.arcgis.com/home/item.html?id=4dbfecc52f1442eeb368c435251591ec>

## Parcel Size

Washington State Open Data Bridge. (2016). Washington State Parcel Database 2016. Retrieved from [http://geo.wa.gov/datasets/179f649cb9224670abe356ebeb413c89\\_0](http://geo.wa.gov/datasets/179f649cb9224670abe356ebeb413c89_0)

## Development Threat

Washington State Department of Ecology. (2016). City and Urban Growth Areas. Retrieved from <http://www.ecy.wa.gov/services/gis/data/data.htm>

## Critical Habitat

Washington State Department of Fish and Wildlife. (2015). Species Ranges 2015 – State Wildlife Action Plan. Retrieved from <http://geography.wa.gov/data-products-services/data/data-catalog>

## Salmon-bearing Streams

Washington Department of Fish and Wildlife. (2014). Statewide Washington Integrated Fish Distribution. Retrieved from <http://geography.wa.gov/data-products-services/data/data-catalog>

## Grasslands and Oak Woodlands

Washington State Department of Natural Resources. (2008). Natural Heritage, Oaks and Grasslands of the Puget Trough Ecoregion. Retrieved from <https://fortress.wa.gov/dnr/adminsa/DataWeb/dmmatrix.html>

#### Rare Plants and High Quality Ecosystems

Washington State Department of Natural Resources. (2017). Natural Heritage, Rare Plants and High Quality Ecosystems. Retrieved from <https://fortress.wa.gov/dnr/adminsa/DataWeb/dmmatrix.html>

#### Connectivity

Washington State Department of Natural Resources. (2016). Washington State Non-DRN Major Public Lands. Retrieved from <http://geography.wa.gov/data-products-services/data/data-catalog>

&

Washington State Department of Natural Resources. (n.d.). DNR Managed Land Parcels. Retrieved from <https://fortress.wa.gov/dnr/adminsa/DataWeb/dmmatrix.html>

&

U.S. Census Bureau. (2016). 2016 TIGER/Line Shapefiles: American Indian Area Geography. Retrieved from <https://www.census.gov/cgi-bin/geo/shapefiles/index.php?year=2016&layergroup=American+Indian+Area+Geography>

#### Community Values and Priorities

##### Heritage Barn Register

Washington State Department of Archaeology and Historic Preservation. (2012). DAHP – Heritage Barns. Retrieved from <http://www.arcgis.com/home/item.html?id=0ddf8c18881d49e29e9de9474cfd0178>

#### Scenic Highways

Washington State Department of Transportation. (2012). Scenic and Recreational Highways of Washington State. Retrieved from <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

#### Public Trails

Washington State Recreation and Conservation Office. (2015). Washington State Trails Database. Retrieved from <http://geography.wa.gov/data-products-services/data/data-catalog>

#### Crop Productivity and Local Food Production

Washington State Department of Agriculture. (2016). Crop Data. (Retrieved from Joel Demory, WA Dept. of Ag.)

# References

