

GRAZING WITH RARE PLANTS

COLVIN RANCH

Southwest Washington Grazing School - April 23, 2023



COLVIN RANCH



OVERVIEW

GRAZING WITH RARE PLANTS

1. Native Prairies in Thurston County
2. Rare Plants at Colvin Ranch
3. Achieving Goals With Conservation
4. Working With Grazing Plans
5. Benefits for Plants, Animals, and People

NATIVE PRAIRIES IN THURSTON COUNTY

HOW THEY WERE FORMED



IN THE BEGINNING

VASHON GLACIATION 15,000 YEARS AGO

The Puget Lobe Ice Sheet extended to Tenino at its furthest reach; ice was 660 feet thick.

Washington State Dept. of Natural Resources
<https://www.dnr.wa.gov/programs-and-services/geology/explore-popular-geology/puget-sound-and-coastal-geology#puget-sound-geology>

GLACIAL MELTWATER

RETREATING GLACIERS CARVED PRAIRIES AND DEPOSITED SOIL

As glaciers retreated, meltwater eroded soil. Ice dams created glacial lakes, and when dams melted massive floods further shaped the landscape.

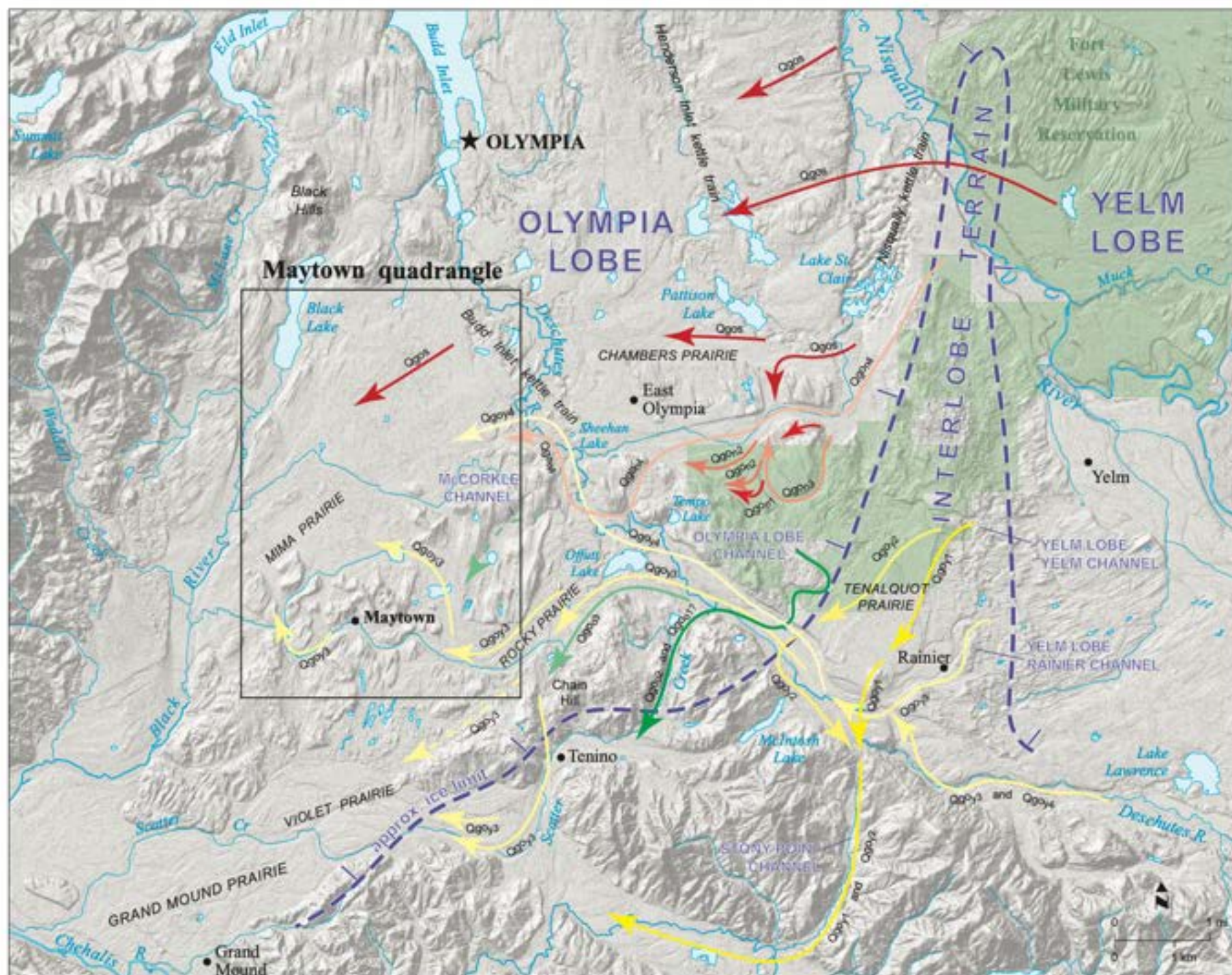


Figure 3. Lidar shaded-relief image showing progressive meltwater paths during ice withdrawal from the southern Puget Lowland. Modified from Walsh and Logan (2005). Not all of the outwash units in the East Olympia quadrangle (Walsh and Logan, 2005) are present in the Maytown quadrangle.

Washington State Department of Natural Resources
https://www.dnr.wa.gov/publications/ger_gm72_geol_map_maytown_24k.pdf

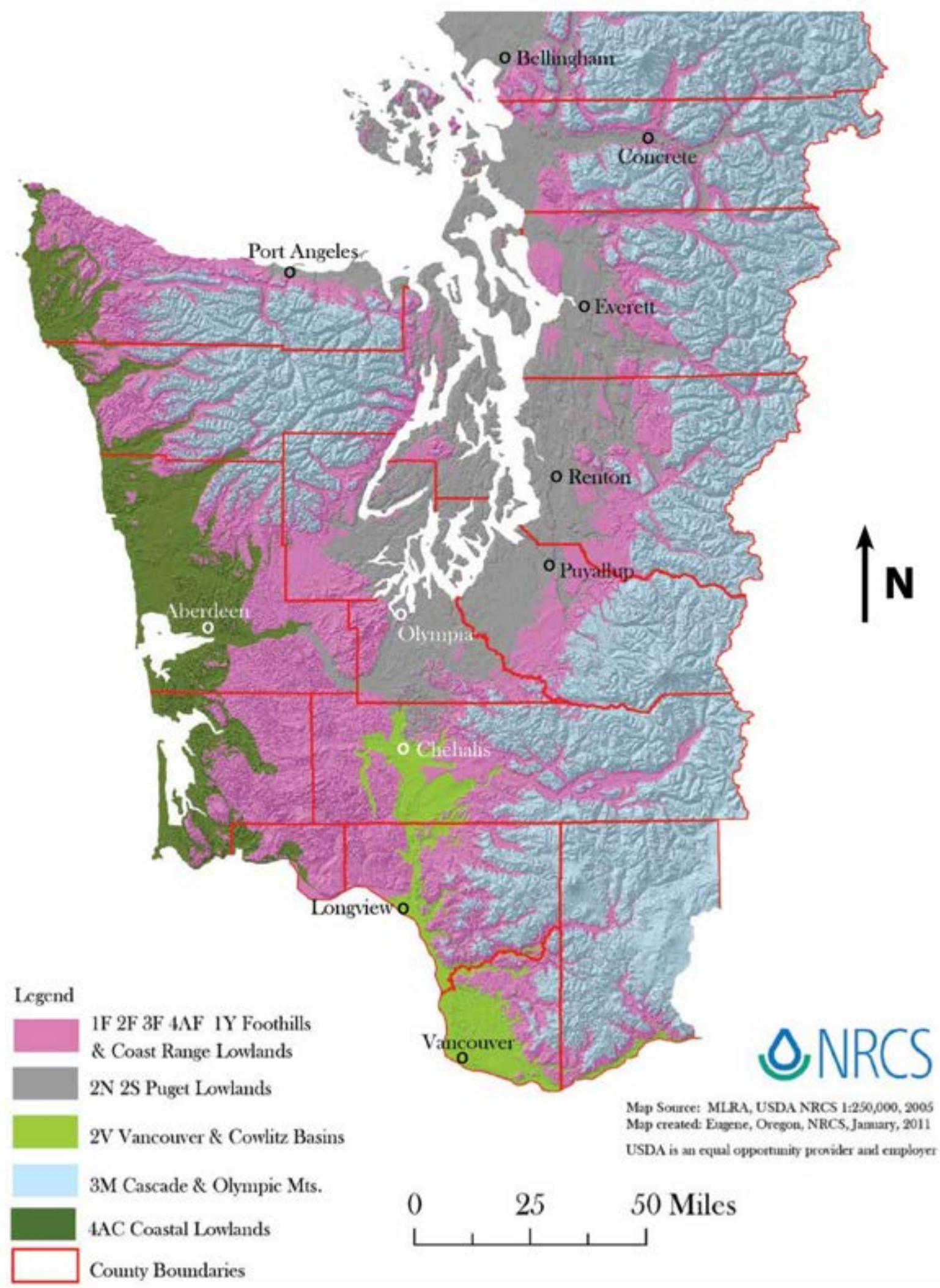


Figure 4. Western Washington forage management zones.

WESTERN WASHINGTON TODAY

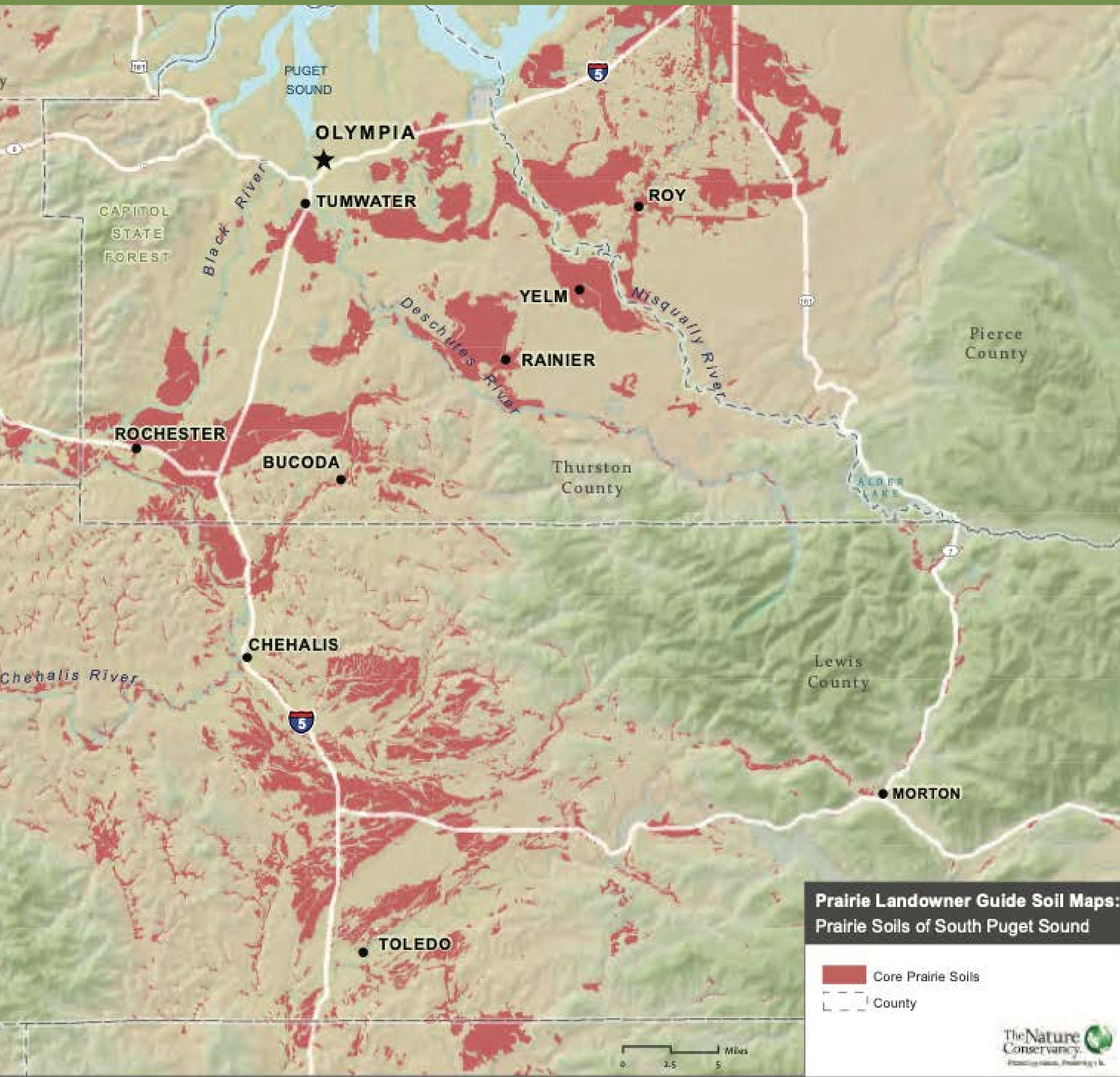
FORAGE MANAGEMENT ZONES

Defined by geology, climate, water soils, and land use. Our area is categorize as Puget Lowlands, Common Resource Area (CRA) 2.7 Southern Puget Prairies.

Pacific Northwest Extension Publication 699
<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw699.pdf>

RARE PLANTS AT COLVIN RANCH

A UNIQUE PRAIRIE ECOSYSTEM



SOURCE: The Nature Conservancy

IT STARTS WITH DIRT

SOIL TYPES SUPPORT NATIVE PRAIRIE ECOSITES

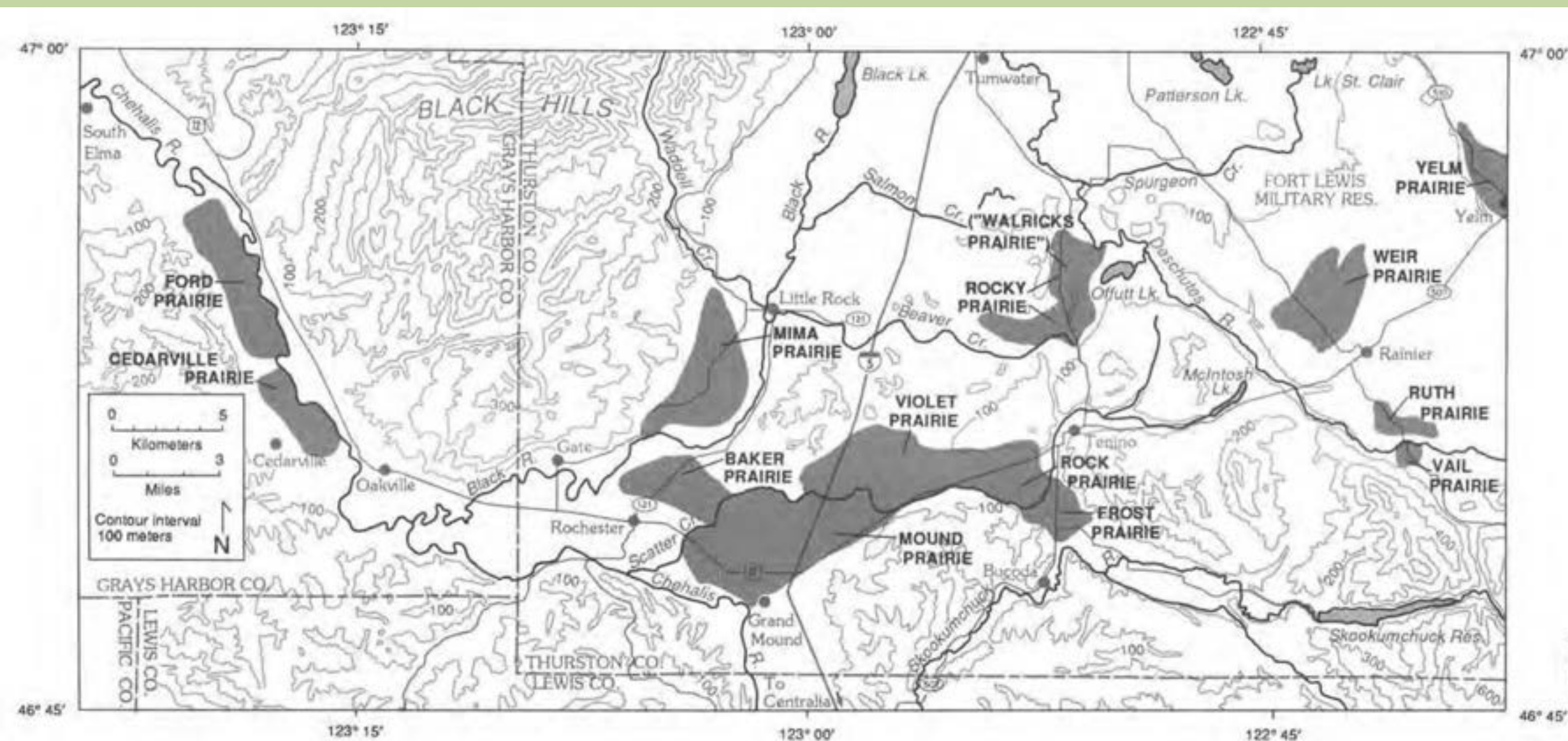
The soils deposited by retreating glaciers are gravelly, well-drained, and nutrient poor.

Prairie Landowner Guide, The Nature Conservancy
<https://cascadiaprairieoak.org/wp-content/uploads/2013/08/Prairie-Landowner-Guide-Western-WA1.pdf>

COLVIN RANCH

PUGET SOUND PRAIRIES

COLVIN RANCH LOCATED ON ROCK PRAIRIE



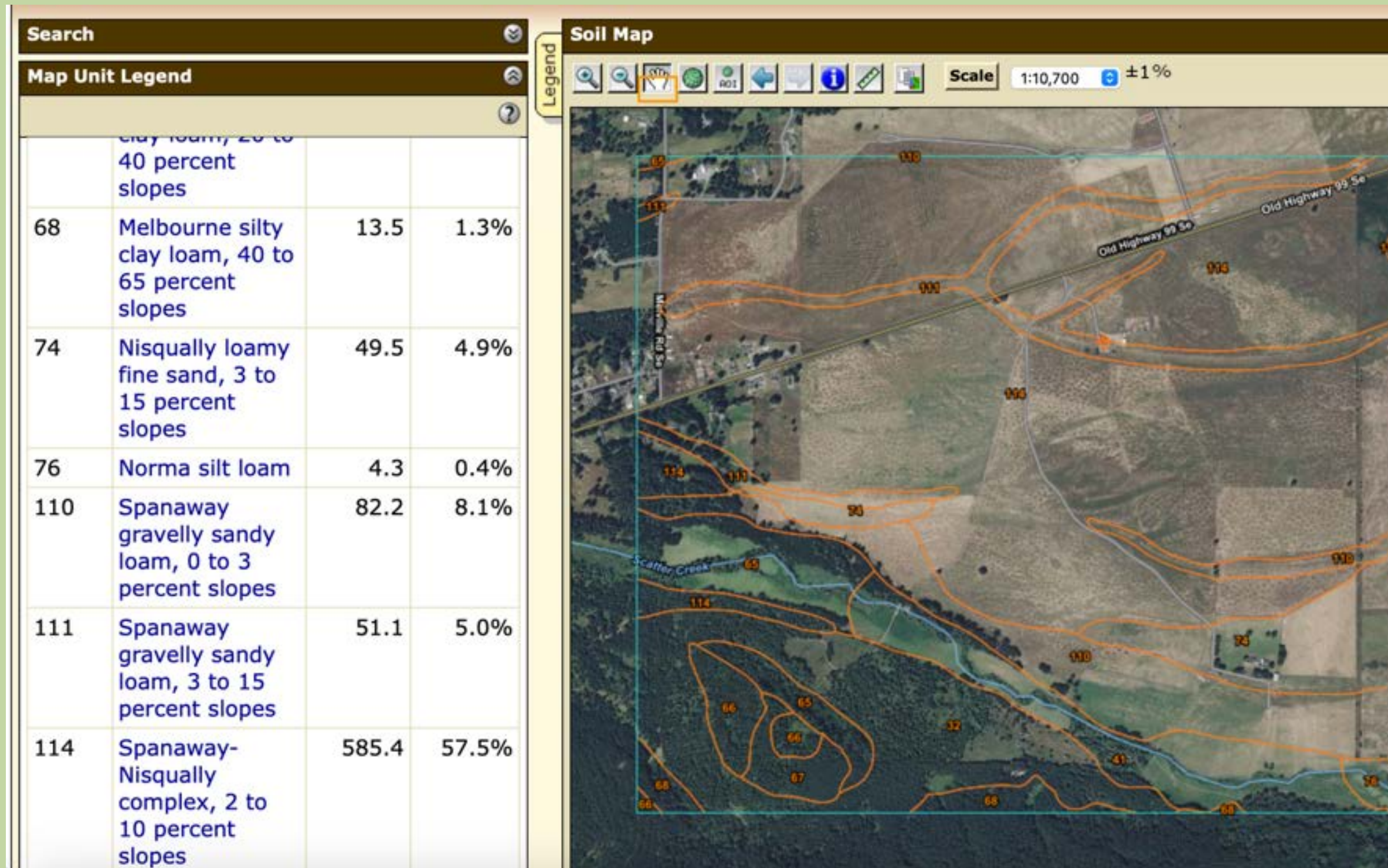
The prairies in Southwest Washington are characterized by specific soil types and unique geographic characteristics like the Mima Mounds.

Washington State Dept. Natural Resources, A.L. Washburn
https://file.dnr.wa.gov/publications/ger_ri29_mima_mounds.pdf

SOIL MAP

IDENTIFYING SOILS ON YOUR PROPERTY

The predominant soil type on the prairie is Spanaway-Nisqually complex. A variety of other soil types are present in the meadows, hills, and forested areas.



NRCS Web Soil Survey
<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>



SOIL TYPES

THURSTON GEODATA

Look up soil types for your land:

<https://gisdata-thurston.opendata.arcgis.com/datasets/thurston::thurston-soils-usda/about>

NATIVE & RARE PRAIRIE PLANTS



CAMAS

Camas bulbs were a traditional food source for Native tribes



NATIVE GRASSES

Roemer's fescue, hairgrass, California oatgrass



BALSAMROOT

One of the many colorful flowers that bloom on the prairies in spring

TARGET PLANTS

THURSTON COUNTY CRITICAL AREA ORDINANCE PRAIRIE PLANTS



PLANTS USED BY ENDANGERED OR IMPERILED BUTTERFLIES

Brodiaea, camas, hyacinth brodiaea, Puget balsamroot, Oregon sunshine, cutleaf microseris, hounds tongue hawkweed, fragrant popcorn flower, Nuttall's Larkspur, straight-beak buttercup, Western buttercup, barestem lomatium, nine leaf lomatium, spring-gold lomatium, Gairdner's yampah, dogbane, blue-eyed grass, chocolate lily, sickle-keeled lupine, big-leaf lupine, spotting star, graceful cinquefoil, wild strawberry, early blue violet

GRASSES USED BY BUTTERFLIES

California oatgrass, tufted hair grass, Roemer's fescue, long-stolon sedge

ACHIEVING GOALS WITH CONSERVATION

PRESERVING NATIVE SPECIES AND KEEPING WORKING LANDS WORKING

Prairies & the Role of Fire in Oral History

- * Moon encounters the Daughters of Fire
- * *Over 70 words/terms for fire: sq'wet'wn, skawmitn*
 - Land on fire: *q'w'et'áytms̓*
 - Prairie fire: *słaxálaqwm*
 - Place burned over for berries: *stex*
- * *Prairies were burned every 2-3 yrs to produce more roots, berries & nuts & fires were rotated around the land.*

HISTORY OF CONSERVATION

NATIVE TRIBES AND PRAIRIE MANAGEMENT

For thousands of years, native tribes including the Chehalis Tribe managed prairies by conducting prescribed burns to keep prairies open and encourage the growth of native plants used for food.

Native Oral Histories and Upper Chehalis Prairie Origins, Linda Storm
http://www.southsoundchapterwnps.org/Storm,L_WNPS_2008StudyWkend.pdf

PRESERVING OUR PRAIRIES TODAY

LESS THAN 3% OF NATIVE PRAIRIE HABITATS REMAIN

Prairies once covered more than 180,000 acres in Southwest Washington. Today, less than 3% of native prairies remain.

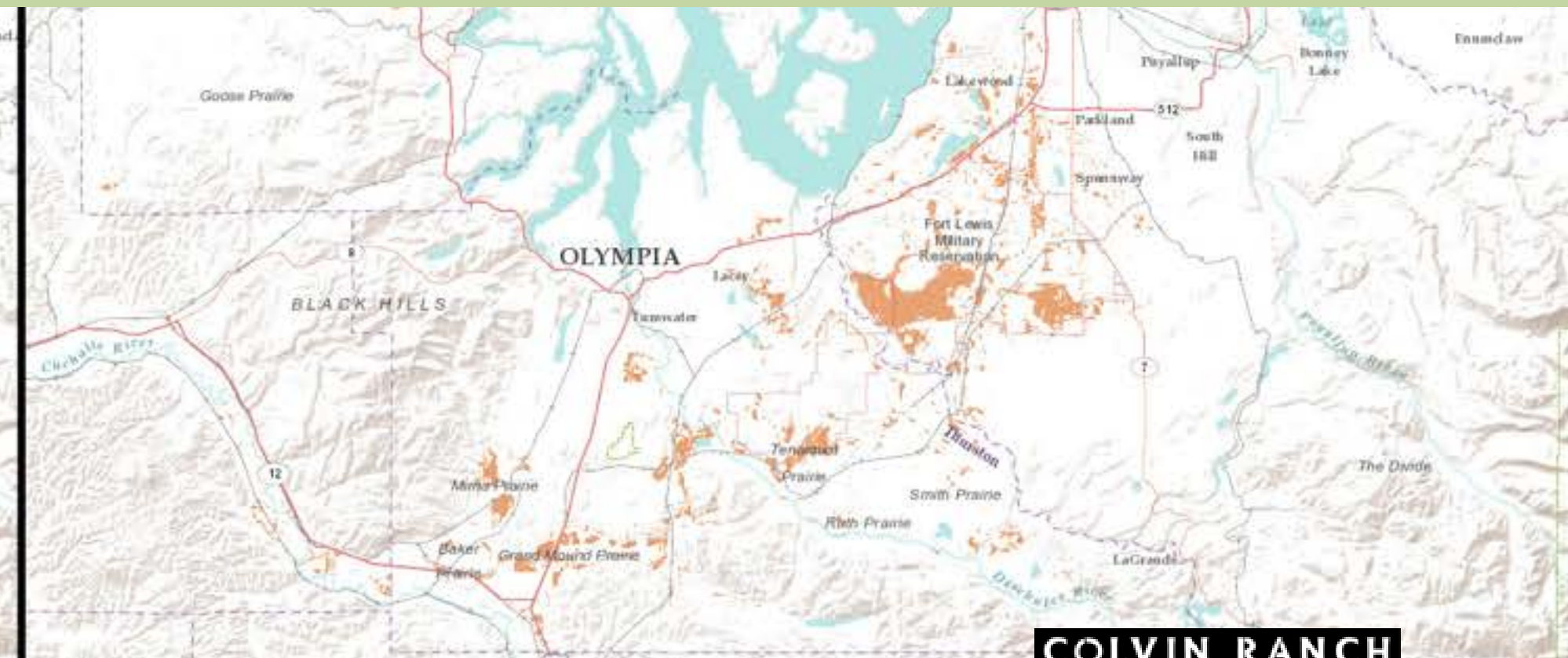
These prairies are home to a number of endangered and threatened species. And they are also working agricultural lands.

US Fish & Wildlife Service

<https://www.fws.gov/project/conservation-prairies-western-washington>



Historic Extent of South Sound Prairies



South Sound Prairies Remaining Today

THE COLVIN RANCH STORY



1854

Ignatius Colvin obtains a land grant to establish Colvin Ranch in Tenino



2005

Fred Colvin enrolls Colvin Ranch in the NRCS Grassland Reserve Program



2014

Jennifer Colvin extends restoration projects on adjoining forestry parcels



2023

Planning for the future and building on lessons learned for the 6th generation



COLVIN RANCH

GRASSLAND RESERVE PROGRAM

**USDA NATURAL RESOURCES
CONSERVATION SERVICE**

Colvin Ranch was one of the first to participate in the USDA Grassland Reserve Program in 2005. NRCS goals were to protect and enhance native prairie plant species. The family's goals were to ensure the ranch would be preserved as undeveloped open space. A conservation easement accomplished both goals.

The conservation easement limits use of the land to grazing, haying, seed harvesting, and maintenance activities. It explicitly prohibits crop cultivation, construction of new roads and buildings, and mining.



Natural Resources Conservation Service
U.S. DEPARTMENT OF AGRICULTURE



MAKING CONSERVATION EASEMENTS WORK

DETERMINE GOALS

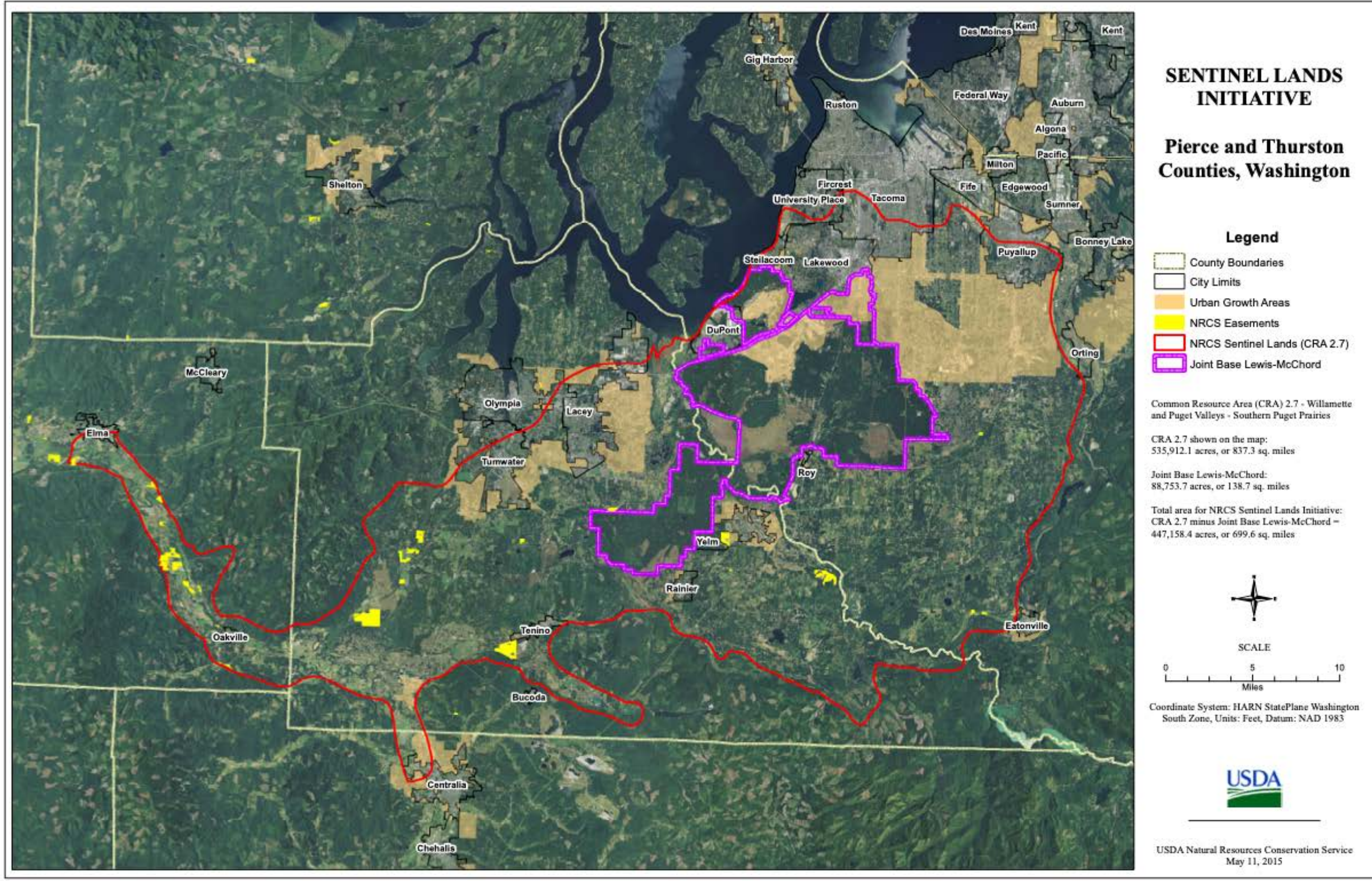
Understand the conservation goals from the agency perspective, and family goals from the rancher perspective.

ESTABLISH MANAGEMENT PLANS

Conservation easements set the rules, management and grazing plans determine how they are implemented.

PARTNER WITH LOCAL AGENCIES

It's a long-term relationship with your agencies, who become valued partners, advocates, and resources.



USDA NRCS Sentinel Lands Initiative
https://www.nrcs.usda.gov/sites/default/files/2022-10/Sentinel_Lands_area_map.pdf

BY THE NUMBERS

526

ACRES PROTECTED

160+

TYPES OF PLANTS

280

ACRES NATIVE PRAIRIE

WORKING WITH GRAZING PLANS

ENHANCING NATIVE PRAIRIES



GRAZING PLANS

ROTATIONAL GRAZING

We have more than 35 parcels on the ranch, and rotate cattle between pastures based on seasonal conditions.

INTENSIVE AND STRIP GRAZING

During growing seasons, cattle are rotated through small sections every 1-3 days. With strip grazing, they are moved from even smaller sections daily.

SPRING DEFERMENT

On parcels with native prairie species, we defer grazing in the spring to allow plants to grow and establish seed.

FACTORS TO CONSIDER



Infrastructure needs for supplying water and setting up temporary fencing



Seasonal issues like wet pastures that can't be used in the winter or early spring



Where to feed in the winter and keep animals during deferment periods



CONSERVATION GRAZING PRACTICES WORK

Prairies grazed with conservation practices can provide a significant contribution to critical species habitat.

South Sound Prairie Grazing Project
<https://extension.wsu.edu/thurston/agriculture/on-farm-conservation/prairie/>

MAZAMA POCKET GOPHERS

**ENHANCING NATIVE PRAIRIE ON
WORKING LANDS**

Conservation grazing practices led to the greatest increase in gopher occupancy from 2018-20: from 56% occupancy (2018) to 83% occupancy (2020).

Evaluation of Grazed Prairie Land for Critical Species Protection in Western Washington 2018-2020
<https://www.thurstoncd.com/wp-content/uploads/2023/02/SARE-Trials-Partner-Summary.pdf>

COLVIN RANCH

BENEFITS FOR PLANTS, ANIMALS & PEOPLE

MANAGING CONSTRAINTS AND MARKETING BENEFITS



SHARED VALUES

CUSTOMERS

Customers buy from us because they want to support the work we do, and that includes conservation.

PARTNERS

We can't do it alone. By working together with partner agencies, we can accomplish shared goals.

COMMUNITY

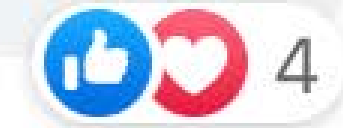
When native plants and animals thrive, we contribute to a healthy environment that benefits the community as a whole.



Kelly Stave

After not eating mammals for over 30 years, I broke my meat-fast with Colvin Ranch meat, because they ethically raise and butcher their cows (who I have met in person!), the cows aren't "grain finished," and Colvin is a local, small family ranch who has invested in the future by putting their property in farmland trust.

Like Reply Hide 19w



CONNECTING WITH CUSTOMERS



**We couldn't be more happy with our
experience, knowing that our meat is
treated exceptionally well**

ALLYSON R.



TELL YOUR STORY

**PEOPLE WANT TO BE PART OF
SOMETHING MEANINGFUL**

What matters to you?

What matters to your customers?

How can you use constraints to your advantage?



COLVIN RANCH

LOCAL SINCE 1854

We are a fifth-generation family owned and operated cattle ranch located in Tenino, Washington, and provide grass-fed, grass-finished beef to families, food banks, and school districts in the region. Our family heritage of humane livestock handling, sustainable grazing practices, and stewardship of the land ensures that native and endangered plants and animals will continue to flourish for generations to come.



CONTACT US

COLVIN RANCH

16816 Old Highway 99 SE, Tenino, WA 98589

EMAIL

info@colvinranch.com

PHONE

360.339.8465

