

# Oak Woodland and Savanna Habitat Restoration at Sogge's

#### **PROJECT BACKGROUND & DESCRIPTION**

This project improved oak habitat on a 64-acre site at the far western edge of the ridgeline surrounding Eugene. The landowners wanted to restore the site to the oak woodland and savanna habitat historically found in the uplands of the Willamette Valley. Like many areas in the valley, the site had transitioned to primarily closed canopy forest from lack of fire and encroachment from Douglas fir. In some places, ancient legacy oak trees were being encroached by fir trees that were overtopping them and shading them out. In other portions of the site, young oak trees were being forced to compete for light and thus growing tall and spindly. Through thinning, we have opened up this stand to allow the oak trees to grow much larger crowns and allow sunlight to reach the forest floor.

Geranium lucidum, (commonly called shining geranium), is a rapidly spreading non-native plant that was detected on the property. Other invasive plants such as Himalaya blackberry and scotch broom were also present on parts of the site. Removing these invasive species will benefit native plants and wildlife. The goal of this project was to restore approximately 35 acres of former oak savanna habitat for native plant and wildlife species that depend on oak woodland and savanna.





**Before the project:** Large oaks such as the one in the background (arrow) are discouraged from growing broad, open crowns by the dense, surrounding vegetation. In addition, very little sunlight was penetrating to the forest floor, thus limiting plant diversity.



**Implementation:** Douglas firs are thinned using this Harvester to allow retained oaks to grow freely. Without competition, oaks can grow wide, open-grown canopies beneficial to wildlife.



# Oak Woodland and Savanna Habitat Restoration at Sogge's (continued)

# **RESTORATION TECHNIQUES**

- Initial inventory of vegetation conditions, including presence of invasive species, and rare native plants.
- Stand densities were thinned to encourage open canopy growth of the retained trees.
- The meadows located on-site were expanded by thinning adjacent trees. This encourages the continued growth of prairie species which require bright sunlight.
- Thinning was achieved with a Timberjack Harvester. Thinned material was moved with a Forwarder to an accessible portion of the property.
- Chainsaws were used to thin trees in steeper portions of the property.
- Logs were hauled off site and sold, smaller limbs and brush were piled and burned. Sale of harvested product paid for a large portion of the project.
- Soil disturbed by thinning was seeded with native grasses.
- Soil disturbed by burning the brush piles was seeded with native grasses and wildflowers.



**Before the project:** This picture illustrates the density of young firs on the site. Without fire or thinning, fast growing Douglas firs can encroach on mature oaks, converting upland savanna habitat to a dense thicket.

# ENVIRONMENTAL & ECONOMIC BENEFITS

- Thinning the forest allows more sunlight to penetrate to the forest floor. This allows native savanna plant species to thrive.
- As native prairie and savanna plants return, the site will provide habitat for insects, birds, and mammals dependent on prairie and savanna habitat.
- Thinning also allows mature oaks to expand their crowns and produce more acorns, which provide food for native wildlife species. In addition, more cavities are formed in oaks with larger crowns. Many wildlife species, such as Western bluebirds, nest in the cavities present in large oak trees.
- Removal of invasive non-native plants will increase the biodiversity and percent cover of native prairie grasses and wildflowers.



**Implementation:** Conifers, ash, and smaller oaks were thinned from this upland area. The brush piles in the background will be burned.

## **PROJECT FUNDING & SUPPORT**

Project Cost:	\$	201,165
OWEB funding:	\$	141,655
Landowner match (Includes	revenue	generated from
sale of timber):	\$	59,510

## **Partners**

Tad & Heather Sogge, Landowners, US Fish & Wildlife Service Oregon Watershed Enhancement Board (OWEB)