



# Oak Woodland and Wet Prairie Enhancement at Johnson's

## Project Background & Description

Oak savanna and prairie have been drastically reduced in extent and quality since the mid-1800s due to extensive clearing for agriculture, timber, settlement, and fire suppression. Wet prairie historically comprised about 85% of the wetlands within the Long Tom Watershed. One of the goals of this project was to restore these rare yet important habitat types. This project restored 20 acres of oak woodland and wet prairie located north of the Fern Ridge Lake complex off Franklin Road. The restored habitat represents some of the best remaining oak woodland, savanna, and wet prairie within the southern Willamette Valley.

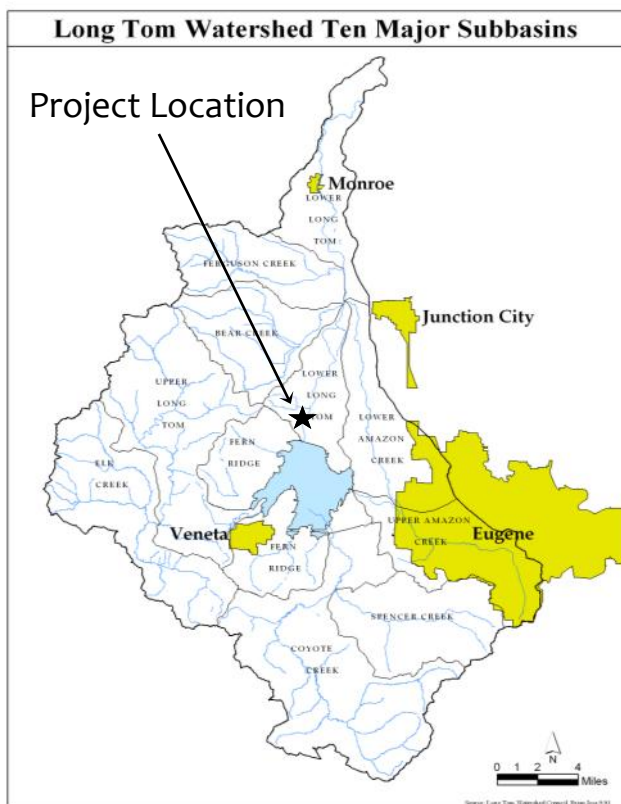
The oak woodland had become overgrown with young trees and understory shrubs. This competition was putting many large-diameter, pre-settlement era oaks at risk. In addition, the crowded understory limited light penetration to the forest floor, which limits wildflower growth. In essence, an area that was historically much more open and light-filled had become an overgrown thicket. The wet prairie on the site was similarly threatened with encroaching young ash trees. The ash trees had colonized the prairie and were rapidly converting a grassland full of rare, native plants into a low-diversity ash thicket.



**Early Summer 2010**—Pre-thinning photo of the project area. Note the extremely dense understory that was preventing light from reaching the forest floor. The ancient oaks were also at risk from competition due to overcrowding.



**Spring 2011**—Post-treatment photo of the oak woodland. Note the open structure that has been re-established. This allows the oaks to grow free from competition, which stimulates branch formation and canopy growth. Wildlife benefit from increased acorn production and the formation of nesting cavities for birds and small mammals.







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## Restoration Techniques

The woodland restoration consisted of removing many of the younger trees and overgrown shrubs from within the woodland with a skid steer and attached shears. With the skid steer/shears combination we were able to cut the trees and shrubs flush with the ground to make future mowing easier. The cut material was ground-up and removed from the site.

Restoration of the wet prairie was accomplished through mowing the young ash trees that were shading out the native plants.

The response by native wildflowers was very dramatic. The Spring of 2011 saw a virtual carpet of native wildflowers throughout the woodland and out into the mowed prairie. Most exciting was the resurgence of the endangered Bradshaw's lomatium plant within the wet prairie. The lomatium had apparently been suppressed by the ash trees that had invaded the prairie. Through removing the ash trees, these rare plants were able to make a strong comeback on-site, thus taking the species one step closer to recovery.



**Early Summer 2010**—Much of the site was covered in a thicket of Oregon ash. The ash was effectively shading out most wildflowers and drastically reducing diversity.



**Spring 2011**—This post-treatment photo was taken from the exact same point as the photo above. After this seasonal pool drains, wildflowers form a carpet across the woodland. The ash were growing within this wet area.

## Environmental & Economic Benefits

- ◆ Removing competition from the oaks on-site will increase their longevity and growth. Of particular benefit is the increased canopy growth stimulated through thinning.
- ◆ Oak canopy growth will benefit wildlife through increased acorn production, increased invertebrate diversity and abundance, and increased nest and den sites within tree cavities.
- ◆ Removing the young ash trees and overgrown shrubs from the woodland and prairie has increased native plant diversity and abundance dramatically.
- ◆ Contractors from the surrounding area were used for all phases of the project which contributed to the local economy.

## Project Funding & Support

<b>Project Cost:</b>	<b>\$149,934</b>
OWEB Funding:	\$ 123,084
US Fish & Wildlife Match:	\$ 25,000
Landowner Match:	\$ 1,850

### Partners

Art Johnson, *Landowner*  
 Oregon Watershed Enhancement Board (OWEB)  
 United States Fish and Wildlife Service

The Long Tom Watershed Council thanks our partners and funders!