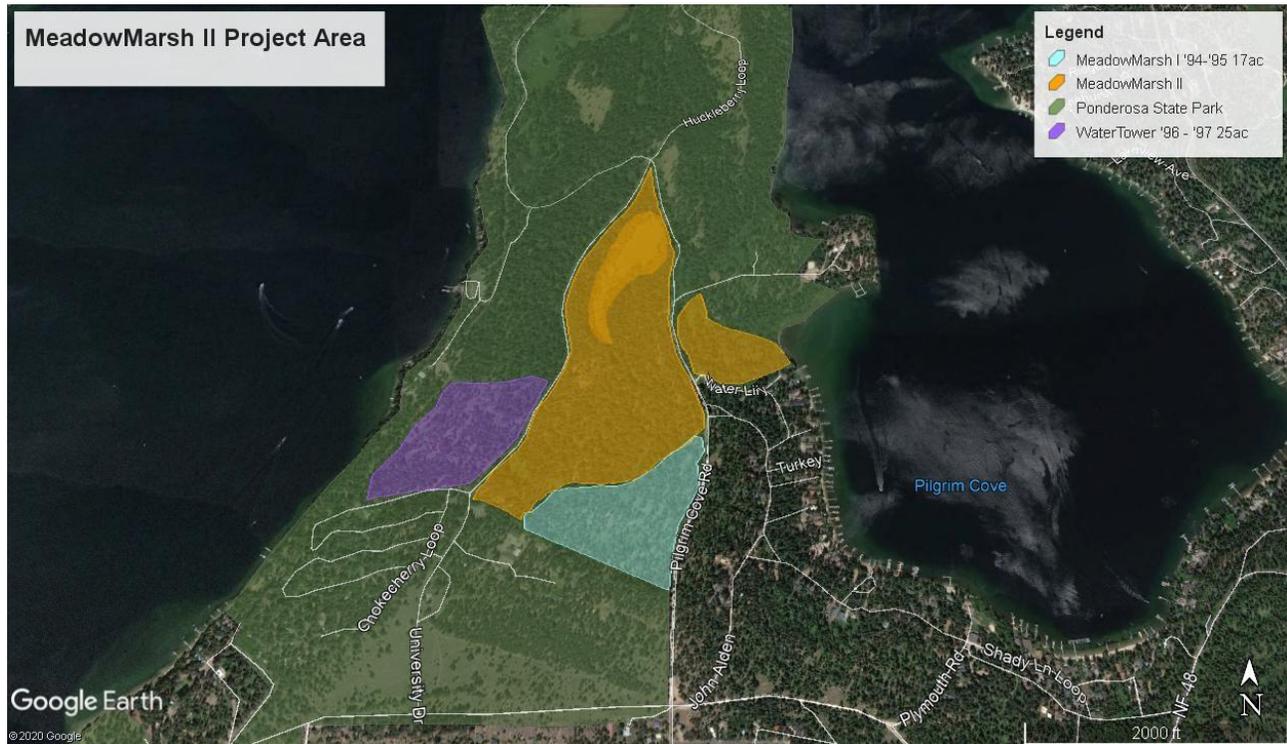


PONDEROSA PINE RESTORATION PROJECT



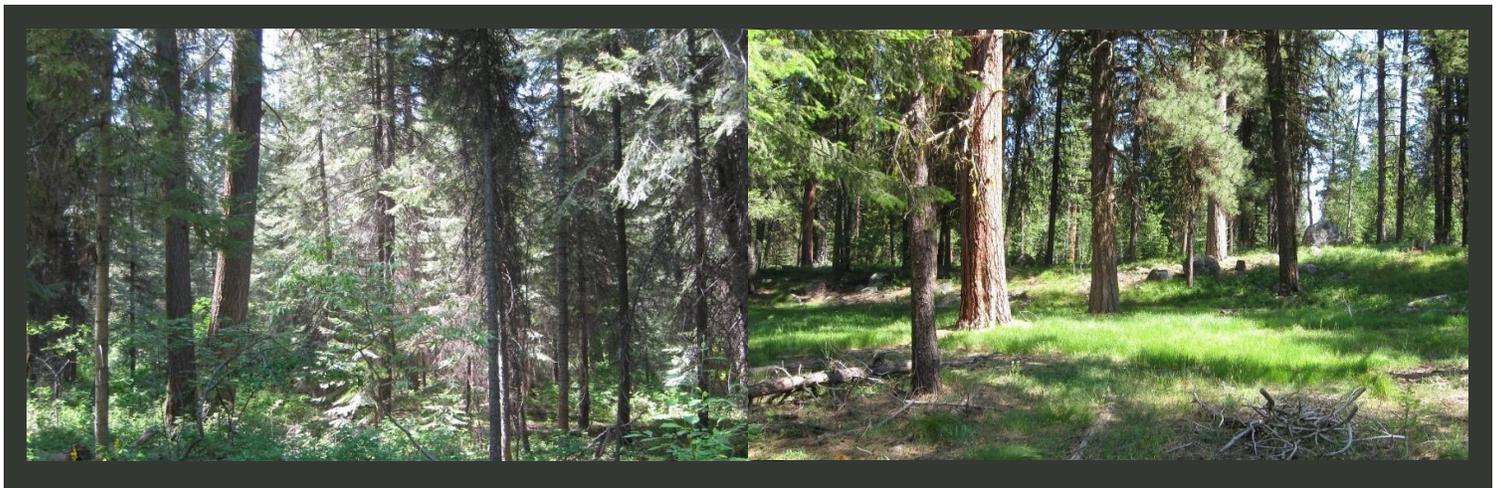
WINTER 2020



More detailed information about the project is available at the Visitor Center or from the Idaho Department of Parks and Recreation, Natural Resource Program.

Fire-Dependent Forest Restoration

The original forest at the Park had mostly old growth Ponderosa, Douglas and Western larch trees as part of a healthy and diverse forest habitat. The park's signature Ponderosas, with their thick bark and high branches, are adapted to withstand periodic, low-intensity fires, which clear out less-hearty trees and give them space to thrive. Over the past 100 to 130 years, great numbers of Grand fir moved in because of fire suppression, altering the natural balance. Today, a wildfire in the MeadowMarsh II area would be unnaturally severe and kill most of the trees, damage soils and erase genetic diversity. The project will include road edge maintenance and creation of fuel breaks that will facilitate better emergency access and evacuation routes.



Meadow Marsh I project area before 1996 restoration.

The past project opened the area up, reducing wildfire fuel and encouraging plant growth.

Existing Conditions

Currently, the project area has 13 percent Ponderosa pine, 16 percent Douglas fir, 56 percent Grand fir, 2 percent Western larch, and 12 percent Lodgepole pine. Historically the area had mostly Ponderosa and Douglas fir trees – 35 and 32 percent, respectively – with 25 percent Grand fir and 8 percent Western larch.

Project Goals & Objectives

- Through selective thinning (removing primarily Grand fir), restore the site's historic structure, processes and historical mix of tree types.
- Re-establish a frequent disturbance regime, i.e. low intensity prescribed fire, mechanical mastication, hand work, etc. to maintain forest health and diversity.
- Reduce the fire hazard (intensity and severity).
- Protect life, property, infrastructure, and scenic and recreational opportunities.
- Re-establish regeneration of Ponderosa pine and Western Larch to the site.
- Reduce the insect and disease infestations to historically natural ranges.
- Maintain zero tolerance for noxious and invasive plant species.
- Increase diversity of forest and wildlife.
- Increase wildlife viewing opportunities and encourage growth of grasses and shrubs favored by native animals.
- Manage forest for wildlife habitat needs, keeping some live trees with decay, hollow trees, snags, and logs on the forest floor.

Natural Disturbances and Natural Resource Management

Ecosystem health remains subject to disturbances, including disease, fire and insect infestation. Park staff recognizes these change agents as integral to the ecosystem. When change is stifled, the forest gradually becomes out of balance, which threatens the health of the entire park ecosystem and requires restoration.

Decades of fire suppression have allowed dramatic changes to occur. Low Intensity Fire and other disturbance events improve the ecological diversity of plants and animals and recycles nutrients in the system. Any management that precludes disturbances harms the forest health, which has occurred in Meadow Marsh.

In the spring of 1993, Ponderosa staff implemented a holistic approach to the management of the park's natural communities and developing goals and objectives to address the declining health and sustainability issues. Ecosystem-based management focuses on the desired future condition of these resources, based on ***preserving natural processes, perpetuating native vegetation and wildlife and interpreting the natural values of the park.***

The goal is the restoration of the park's varied ecosystems to produce sustainable natural communities within the past mix of species, or Historical Range of Variance (HRV). The range is defined as a range of spatial, structural, compositional, and temporal characteristics represent "natural" conditions. This period is usually pre- to early European era, predating fire suppression and other unnatural management practices that prevented natural disturbances.



Ponderosa State Park Natural Resource Management History

The timeline below reviews past resource management projects in the park. Park staff prioritized wildland urban interface and other highly vulnerable areas.

Priority was given to:

- Private property
- The Girl Scout Camp
- The University of Idaho Field Campus
- Park facilities
- Areas with high fuel loading and potential to burn
- Areas with epidemic insect and disease problems
- Areas showing decline in old growth forest habitat and other ecosystems in decline

1993 Scenic Drive Pre-commercial thinning 25 acres: First Idaho State Park restoration project started with the fall thinning project to break up fuel ladders – vegetation that could allow fire to travel from the ground into the canopies of big trees – and the concentration of dense understory trees. The slash was lopped and scattered for spring burning in 1994.

1994 Scenic Drive, understory prescribed burn 25 acres: First Idaho State Park prescribed under-burn to re-establish fire to fire-dependent forest habitats.

1994 Grassy Balds/Point, prescribed burn 25 acres: Burning of mixed grassy balds and forested draws on the point. Goal was removal of trees encroaching on grassy balds on point, recycle nutrients and re-establish natural fire to fire-dependent forested rock/mountain meadow ecosystem.

1994 Meadow Marsh 1: Idaho State Parks first forest restoration timber harvest, 17 acres: The Meadow Marsh area was commercially thinned in the early winter of 1994. The project targeted Grand firs 20-inches or less in diameter, which were approximately 100 years old, to restore the forest to historical density and mix of species.

1995 Meadow Marsh 1, pre-commercial thinning 17 acres: Non-commercial Grand fir and Douglas fir, between 2 inches and less than 8 inches were thinned with the trees lopped and scattered from the remaining trees in the stand.

1996 Meadow Marsh 1: Prescribed burn of 17 acres in May.

1996 Grassy Bald/Fox Run, prescribed burn 30 acres – October: Burning of mixed grassy balds and forested draws on Fox Run. Removal of trees encroaching on grassy balds, nutrient recycling and re-establishment of natural fire to fire-dependent forested rock/mountain meadow ecosystem.

1996 Water Tower 1, restoration timber harvest, 20 acres: The Water Tower unit was commercially thinned in January of 1996.

- **1996 Water Tower 1**– thinning 20 acres of Grand fir and Douglas fir, between 2 inches and less than 8 inches in diameter with the fuel being lopped and scattered away from the remaining trees in the stand.
- **1997 Water Tower 1** -20 acres prescribed broadcast burn; in April tree wells burned to reduce duff layers around retained trees, followed by a May prescribed burn.

1999 Grassy Bald/Sunrise Hill prescribed broadcast burn of 5 acres: Burning of mixed grassy balds and forested draws on Sunrise hill area. Removal of trees encroaching on grassy balds, nutrient recycling and the reestablish of natural fire to fire-dependent forested rock/mountain meadow ecosystem.

2000 thru 2007 Pine Flats pre-commercial thin 40 acres: Pre-commercial thinning by park staff and the Southern Idaho Timber Protection Association (SITPA) took place over several years in a pine plantation that consisted of off-site pine, with densities of up to 600 trees per acre. Thinning reduced stand density to half original density, removing insect and diseased trees. Thinning each year followed by pile burning in late fall.

2001 Scenic Drive broadcast prescribed burn 20 acres: Mid-May prescribed fire to follow up the 1994 prescribed under-burn.

2001 Lily Marsh broadcast prescribed burn, 45 acres: Fall broadcast burn to return fire to marsh/wetland ecosystem. Resulted in about a 40 percent burn of vegetation and increased seed production/improved palatable vegetation.

2006 Girl Scout Lease Land restoration/hazard tree timber harvest 25 acres: Area logged in late fall/early winter to restore ecosystem and remove hazard trees on Girl Scout lease land. Same prescription as Water Tower unit, with the addition of hazard tree removal around Girl Scout structures on land leased from the park.

2006 Porcupine Point restoration/fuels reduction timber harvest 14 acres: area logged in late fall/early winter to restore ecosystem and remove blown down trees from a microburst in 2006. Restoration commercial thinning to reduce stand density and reduce fuel loadings.

2007 Girl Scout Lease Land: slash piling /pile burning 25 acres. Slash and fuels piled in the spring and burned in fall.

2007 Porcupine Point slash piling/pile burning 14 acres. Slash and fuels piled in spring and burned in fall.

2009 Spring-Tree Well Burning project on approximately 40 acres: Burning of tree wells to reduce duff layers around old growth trees, while there is still 1-2 feet of snow on ground around trees.

2010 FEMA Fire Mitigation Project; Wildland Urban Interface fire reduction project – pre-commercial thinning 120 acres: During summer FEMA crew worked on restoring forest and forested meadows to HRV, reducing fire hazard in urban interface, creating green fire safety zone around park boundary with private property, removing hazard trees, pruning leave trees and fuels reduction. Crew created piles for burning and mechanical mulching.

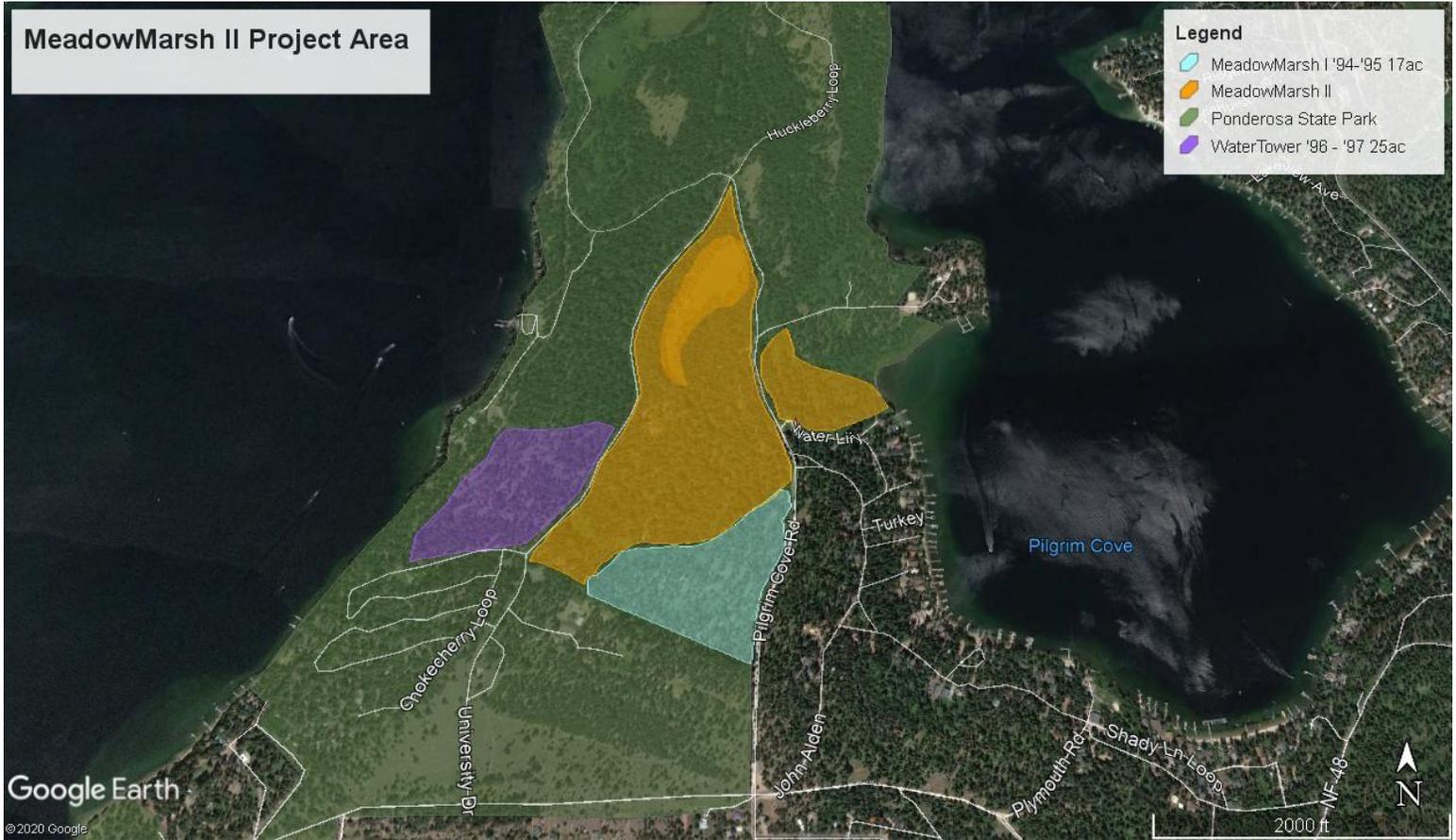
2010 FEMA Fire Mitigation Project: fall pile burning and mulching, 120 acres: during fall used commercial operator to mulch approximately 40 acres of piles, and park staff burning approximately 80 acres of piles.

2010 Bug Sale thru 2017 Bug Sales: reducing epidemic insect infestation and hazard tree reduction mostly of large Douglas fir killed trees by the Douglas fir bark beetles 50 acres. Result of high stand density on mixed conifer sites and marginal Douglas fir sites.

Conclusion

The MeadowMarsh II project will continue the natural resource management efforts the Park has conducted for three decades. The project will connect two previously restored areas, creating a continuously restored site from east to west across the Park. Through ongoing planning, collaboration, education and public involvement, Park staff has strived to make Ponderosa State Park an example of proactive management, and a place to see natural resource conditions that are sustainable, vigorous, safe and at low risk for catastrophic fire.

Project Area



More detailed information about the project is available at the Ponderosa Visitor Center or from the Idaho Department of Parks and Recreation, Natural Resource Program.