

ILIAMNA LATIBRACTEATA HABITAT ENHANCEMENT PAGE MOUNTAIN



Stuart Osbrack, Forest Botanist, Rogue River-Siskiyou National Forest
April 2020

This 2019 project focused on restoration implementation of the fire-adapted disturbance-dependent sensitive plant species *Iliamna latibracteata* (California globe-mallow). Maintaining viability on the landscape is the primary direction for the species by land management agencies. The management objective is to achieve stable or increasing numbers of individuals, sub-populations, and provide suitable habitat. The Page Mountain's *Iliamna latibracteata* occurrence was targeted for FY19 project's habitat enhancement on the Wild Rivers Ranger District, Rogue River-Siskiyou National Forest.

Disturbance necessary for the species to persist has been reduced or eliminated. As a result, occupied habitat has recently dwindled. Providing the disturbance mechanisms the species relies on is essential to secure and protect populations. Management activities for the species exemplified by this project is necessary to maintain viability upon the landscape.

Iliamna latibracteata an early seral species with high reproductive rates occurs in the types of unstable and changing habitats that follow both cooler understory fires and hotter stand replacing fires. The species is likely to resprout after fire as in other *Iliamna* species. It is a fire-adapted species that responds to increased light exposure, decreased competition, and increased nutrient availability. Seed germination requires heat and/or smoke.

Fire suppression may be a cause for the decreased distribution and abundance of the species across its range. Increases in numbers of individuals following fire appear to be short-lived and decline as shrubs and trees establish in burned areas after fire. There is a need to effectively maintain population numbers for the species sustainability. Poor management and the lack of disturbance may severely impact the species longevity.

The project reduced competing vegetation competition by removing encroaching conifers and shrubs within occupied and surrounding suitable *Iliamna latibracteata* habitat. Reducing canopy cover also increased the habitat's amount of light exposure. After vegetation reduction, fire was introduced to the landscape to consume cut vegetation, reduce additional competing vegetation, and add smoke and heat for seed germination.

The initial phase of the implementation included documenting all the individuals within the project area with pin flags. The sensitive plant treatment polygons were flagged and documented and mapped using Avenza software on tablets and smart phones. The treatment polygons were flagged 100 feet from either side of the Forest Service Roads where the species exists. The project provided a roadside fuel break in addition to sensitive plant habitat enhancement. Maps and contract specifications were created, and a contract was awarded for implementing canopy removal.

The contract was awarded for 44 acres utilizing Interagency Special Status and Sensitive Species (ISSSSP) project funds (28 acres of treatment) supplemented with additional funding sources to reach 44 acres of treatment. The cutting and piling of trees and shrubs lasted five days in June 2019. Conifers up to 11 inches DBH were thinned. All hardwood trees and brush less than 11 inches DBH were thinned. All conifers were pruned to a 9 foot height with hand saws. Limbing and bucking of slash and down dead material less than 5 inches diameter were required. Slash was bucked to 8 foot or less in length to facilitate handling. All slash 5 inches diameter or less

were hand piled. Elderberry shrubs were retained. Hand piles were not located within 20 feet of *Iliamna latibracteata* plants. All *Iliamna latibracteata* plants were protected from damage or injury. Contract vehicles were washed before entering each work site to be free of mud, soil and seeds. Botanists were on site guiding and inspecting contractor's implementation.

The piles were burned after they had time to cure the following fall during October. Fall pile burning occurred on multiple days that had an acceptable burn window. Force account implemented the burning, however not all the piles were consumed. Additional burning needs to occur next fall to consume all the piles. In addition to the pile burning a prescribed underburn was implemented in the project area. The underburn turned out to be somewhat spotty.

Iliamna latibracteata habitat was enhanced with the removal of conifers, hardwoods, and brush. This reduced the vegetative competition from *Iliamna latibracteata* individuals and the population. Canopy removal increased sunlight exposure to the habitat. Fire was introduced both consuming fuels piles and as prescribed fire. Disturbance from the prescribed fire removed additional vegetative competition and added nutrients to *Iliamna latibracteata* habitat. The prescribed fire potentially released some dormant *Iliamna latibracteata* seed bank by adding smoke and heat to soils. Propagated seed may increase *Iliamna latibracteata* plant numbers enhancing the occurrence population.

PRE-IMPLEMENTATION PHOTOS



PRE-IMPLEMENTATION PHOTOS *continued*



CUT AND PILE PHOTOS



CUT AND PILE PHOTOS *continued*



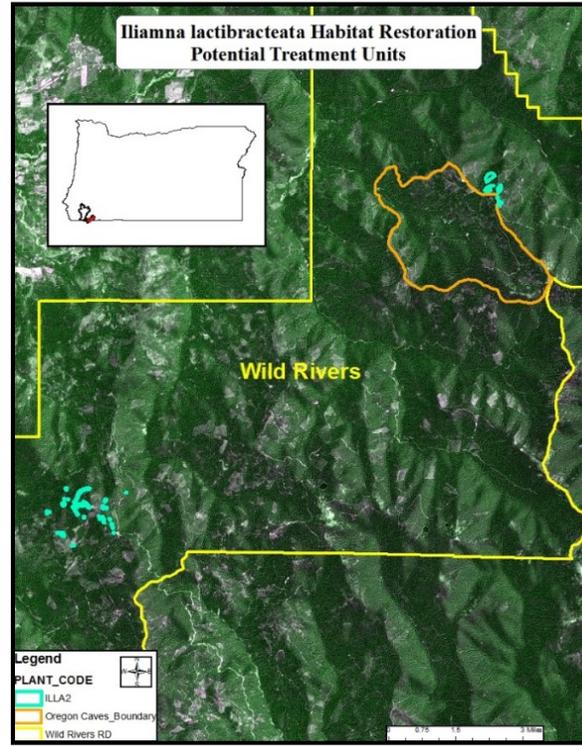
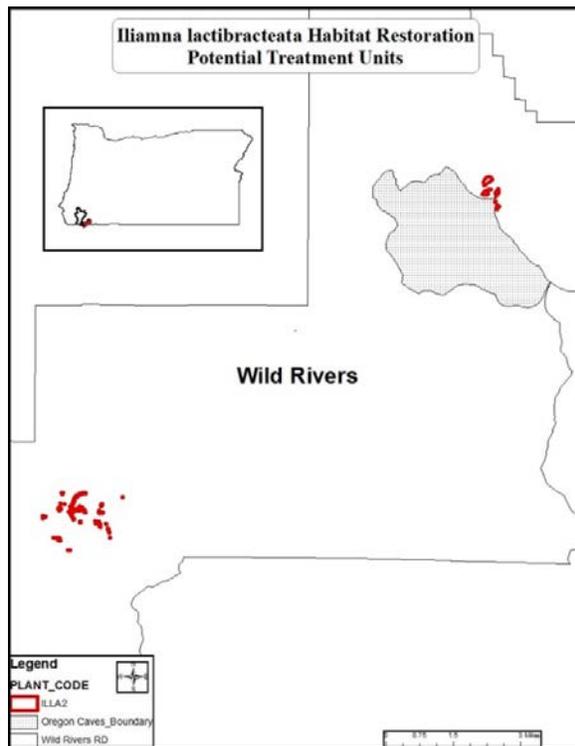
CUT AND PILE PHOTOS *continued*



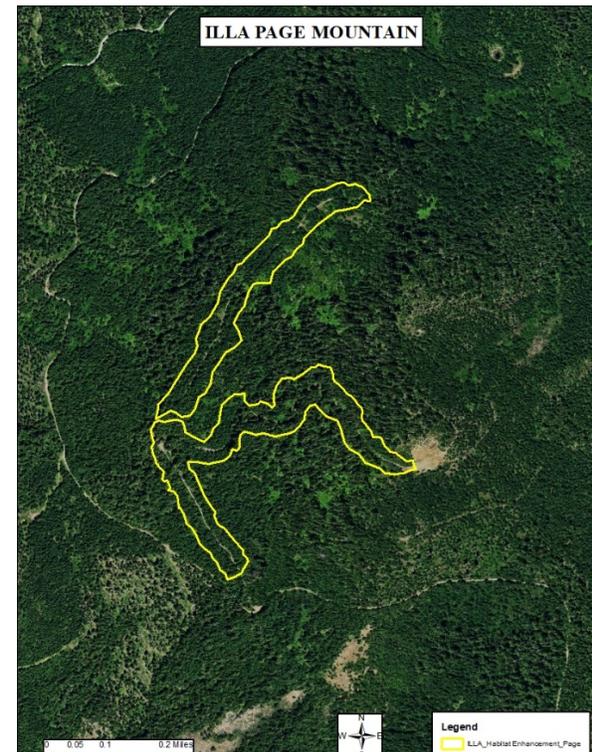
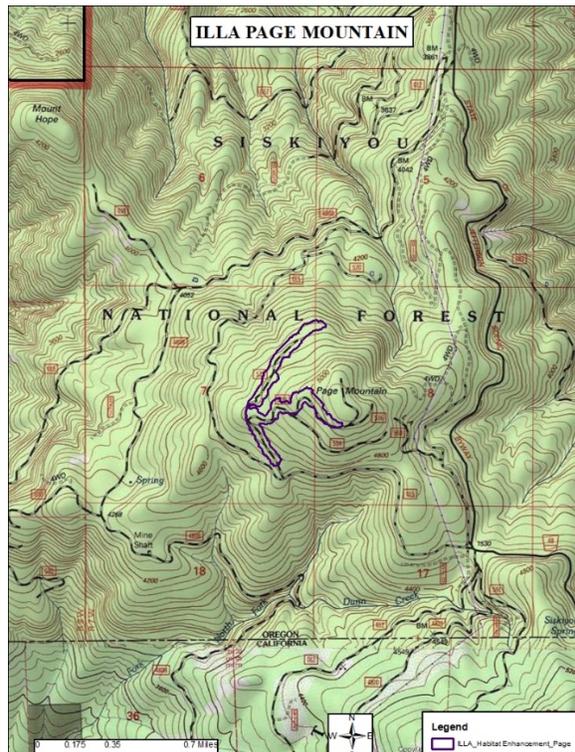
PILE BURNING PHOTOS



PROJECT AREA (SOUTHWEST POLYGONS)



PROJECT IMPLEMENTATION TREATMENT AREAS



CONTRACT SPEC SHEET

Delivery Order Unit Data Sheet

Unit Name & No.:	ILLA 1, 2, & 3
Conifers:	All conifers less than 11 inches DBH shall be cut.
Hardwoods:	All hardwood trees and brush less than 11 inches DBH shall be cut.
Cutting:	Other than selections above, all conifers, including seedlings less than 1 foot in height, shall be removed.
No Cut Species:	No Elderberry shall be cut and Blackberry need not be cut.
Pruning:	All conifers shall be pruned to a 9 foot lift. Pruning shall be done with hand saws.
Slash Treatment:	Limbing and Bucking of slash and down dead material less than 5 inches diameter shall be required. Slash shall be bucked to 8 foot or less in length to facilitate handling.
Hand Piling:	All slash 5 inches diameter or less shall be hand piled. Hand piles shall not be located within 20 feet of ILLA plants.
Species to Protect:	All ILLA plants shall be protected from damage or injury.
Washing:	Contract vehicles shall be washed before entering each work site and be free of mud, soil and seeds.