



To Establish a Series of Permanent Seed-Source Nursery Beds to Use In Restoration of South Puget Sound Prairies

Project # 10-326

Background:

The south Puget Sound is a region rich in natural resources, yet it hosts one of the most threatened ecosystems in the United States. Over 92% of the short grass prairies and oak woodlands of western Washington have been converted to other land uses and only 3% is now considered to be historic prairie. These ecosystems support a wide array of endemic flora with their associated native pollinators, which are now at risk from encroachment by native trees and shrubs and a host of non-native invasive species. Several of the species affected include Federal Candidate species. On Joint Base Lewis McChord, the listing of these species would disrupt training activities. Research has shown that effective restoration must involve seeding or planting of native species once non-natives have been removed. As the capacity for land management agencies to work at larger scales has improved, the availability of native plant materials has become the primary limiting factor in the restoration process.



Viola adunca or dog violet is a species currently in production at Shotwell's Landing Restoration Nursery

Objective:

The goal of this Legacy-funded demonstration project is to establish the infrastructure needed to provide large quantities of prairie seed. As a step towards improving prairie quality at the landscape level through the implementation of restoration actions that focus on recovering Federal Candidates and other rare species on Joint Base Lewis McChord. This project also serves as a model that can be replicated at other Department of Defense (DoD) installations.

Summary of Approach:

This project focused on the establishment of development protocols and permanent seedbeds of perennial and annual forbs and grasses. This project is supported by other land management agencies in the south Puget Sound region and is a springboard to furthering developing large scale seed production facilities.

Protocols on propagation, establishment, harvesting and processing were collected on a group of common and unusual species. These protocols will be available for use by other potential growers to support increased plant material available for other land managers.

Benefit:

The open prairie landscape of Joint Base Lewis McChord is used extensively for training activities. Habitat restoration and enhancement efforts allow military trainers greater flexibility in using existing DoD lands and support Joint Base Lewis McChord commitment to recover federal candidate species. Successful prairie restoration on and off base will allow for the support of candidate species to benefit regional recovery efforts and could significantly reduce the potential for listing. If one of the candidate species were federally listed it could cause serious disruption to training and prove costly.

Accomplishments:

Plant production of restoration species has grown exponentially over the last few years to meet regional restoration needs. Through cooperation with The Evergreen State College's Sustainable Prisons Project, the capacity for plug production is nearly half a million a year. These plugs are used not only for direct restoration benefit but also for establishment of larger scale seed production sites. Infrastructure for seed production was also increased at Shotwell's Landing Restoration Nursery including: 62, 128 sq. ft. seedbeds, a 1,700 sq. ft. seed processing facility with appropriate processing machinery and 320 sq. ft. of long term seed storage.

On base seedbeds were also established for forb and grass production. In 2011, 30 lbs. were collected from 2 acres.

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