

Scope of Work:

August 21, 2004

**Land Restoration Plan
Stone's Ranch Military Reservation
W91ZRS-04-R-0016**

Introduction:

The purpose of the Land Restoration Plan is to restore a 2.5 acre site of exposed soil at Stone's Ranch Military Reservation (SRMR) to reduce erosion, enhance biodiversity, and increase usable training area lands. Most of these sites are currently un-vegetated and exposed well-drained soil is washed into adjacent wetland areas during storm events. Project site is located on the east side of entrance road near the vehicle storage area at SRMR. The proposal for the restoration of the site includes spreading 4 inches of topsoil, blending topsoil and existing substrate, and revegetating exposed soil. All existing trees and shrub areas will remain untouched, and are not included in this project. The natural resources management goal is to increase and enhance upland grassland habitat.

This restoration plan has been written under the provisions of the Sikes Act (16 USC 670a-670f, as amended), the Connecticut Army National Guard's Integrated Natural Resources Management Plan (INRMP), and Executive Order 13112: Invasive Species.

The completion of this project would satisfy requirements of two Connecticut Army National Guard programs. The Fish and Wildlife Program component of the Integrated Natural Resources Management Plan recommends the creation of grassland areas as necessary to support training as well as providing numerous ecosystem benefits including increased grassland bird habitat. Warm-season grasses produce most growth during the summer months and are well adapted to low moisture and higher temperatures.

Site Location:

Project site is located on the west side of the entrance road near the vehicle storage area at SRMR. Unvegetated portion of this site needing rehabilitation is approximately 2.5 acres in size.

Materials Required:

A. Seed: Northeast Upland Wildlife Seed Mix or equal including the following species: *Phleum pratense*, *Trifolium hybridum*, *Dactylis glomerata*, *Lespedeza bicolor*, *Panicum vigatum*, *Andropogon virginicus*, *Setaria italica*, *Helianthus annuus*, *Polygonum pennsylvanicum*, *Panicum clandestinum*, and *Avena sativa*. Purchased seed mix shall not include any non-native invasive species as listed by the Department of Environmental Protection's Natural Heritage Program.

B. Topsoil: Topsoil to be procured will be well drained, loamy soil with no larger than ¾ inch stone content. Soil will have a neutral pH.

C. Silt Fencing and Haybales: Need for erosion control material, silt fence and haybales. Appropriate stakes for fencing and bale installment are also required.

D. Water: Water filling station will be not available on site. Site will need to be watered 4 times, once per week for 4 consecutive weeks.

Major Requirements:

Task 1. Pre-Construction Meeting. The Contractor shall meet with Environmental Division Staff regarding design plans and exact specifications.

Task 2. Site Preparation. All proper erosion controls shall be in place before excavation commences in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Control, DEP Bulletin 34.

Task 3. Grading. The existing soils on this site are very sandy and stony. Topsoil shall be spread in (2) equal lifts. Bottom lift should be thoroughly mixed with the loosened subgrade by disking or harrowing to create a transition layer. Following creation of transition layer, topdress with remaining 2" lift of topsoil. Final average depths of soil shall be 4" of topsoil/existing soil mix with 2" pure topsoil spread on top. Entire surface shall then be rolled with a ballasted roller weighing no more than 60 pounds per square foot.

Boulders unearthed during construction will be moved to northern end of "area b" denoted on Land Restoration Map.

Grade all areas to a smooth, even surface with loose, uniformly fine texture. Smoothly blend to meet existing conditions. Roll and rake, remove ridges, and fill depressions to meet finished grades.

Task 5. Seeding. Approval of Environmental Project Manager (524-4945) of final grade and topsoil depths, and purchased seed mix will be obtained prior to seeding.

The site will be seeded immediately following final earthwork using hydroseeding and the above listed seed mix.

Task 6. Watering. Seeded areas should be watered once per week for the first four weeks following hydroseeding.

Task 7. Removal of Erosion Controls. All placed erosion controls including silt fence and haybales shall be removed immediately following 6th week of watering.

Period of Service:

Work under this Scope will be initiated on or about 30 Sep 2004 and be completed by 30 Nov 2004.

Personnel Requirements:

Installer Qualifications: Engage an experienced Installer who has completed land restoration work similar in material, design, and extent to that indicated for this project and with a record of successful grass establishment.