

# Restoration and Management of Rare and Declining Habitats

S. C. Practice Job Sheet 643

Prepared for: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Farm: \_\_\_\_\_ Tract: \_\_\_\_\_ Date: \_\_\_\_\_



**DEFINITION**

Restoring and managing rare and declining habitats and their associated wildlife species to conserve biodiversity.

**PURPOSE**

Provide habitat for rare and declining species.

**CONDITON WHERE PRACTICE APPLIES**

Sites that previously or currently support the rare or declining habitat targeted for restoration or management (i.e. native warm season grasses and forbs, Carolina Bay, longleaf pine) in South Carolina.

**CRITERIA**

Methods used will be designed to protect the soil resource from erosion and compaction.

Invasive species and noxious weeds shall be controlled. When possible, control will be done on a "spot" basis to protect native forbs and legumes that benefit native pollinators and other wildlife.

Undisturbed areas shall be conserved on a sufficient extent of the area to sustain disturbance-intolerant species.

Species and seeding rate specifications will be prepared to achieve desired habitat condition.

Only high quality and ecologically adapted plant materials will be used. When feasible, only local ecotypes will be used.

Site preparation, planting dates and methods, and plant material care and handling shall optimize vegetation survival and growth.

A pretreatment assessment of the targeted habitat will be documented to provide a baseline for comparison with post-treatment habitat assessment.

Use of fertilizers, pesticides and other chemicals shall not compromise the intended purpose of this practice

Where disturbance is necessary (mowing, burning, grazing, soil movement) it must be scheduled to ensure optimum pollinator success

**OPERATION AND MAINENTANCE**

Haying, grazing and other management activities will be planned and managed (including exclusion) as necessary to achieve and maintain the intended purpose.

Vegetation management and maintenance activities shall not be conducted during the nesting season (April 1 – September 1) except when necessary to achieve the desired habitat condition.

Habitat conditions should be evaluated on a regular basis to adapt the conservation plan and schedule maintenance to ensure the desired habitat condition.

Management and maintenance activities should be rotated to mimic natural disturbance regimes.

**This job sheet is supported by a conservation plan map that shows where the habitat will be restored through designated practices.**

**Declining Habitats to be Restored:**

- Longleaf/wiregrass/forb and legume understory
- Longleaf/little bluestem/ forb and legume understory
- Carolina Bay/Pond Cypress Savanna
- Grassland/Piedmont Prairie
- Local ecotype herbaceous vegetation (plant materials used from local eco-region or South Carolina sources)

Target Plant and Animal Species for Habitat Improvements:

<b>1</b>	<b>6</b>
<b>2</b>	<b>7</b>
<b>3</b>	<b>8</b>
<b>4</b>	<b>9</b>
<b>5</b>	<b>10</b>

<b>Existing Plant Community Description:</b>
<b>Restored Plant Community Description:</b>

**Methods for Habitat Establishment (check planned methods)**

- Plant Longleaf Pine Seedlings**
  - Establish containerized longleaf pine at a spacing of 10 ft. x 10 ft. or greater (500 trees per acre or less). Planting may be uniform or preferably random and patchy with some areas left unplanted to mimic natural regeneration. Staggered plantings over several years will also create a more natural un-even aged longleaf pine stand.
  - Refer to the Tree and Shrub Establishment (612) Jobsheet for planting guidance

- Grasses or Forbs from Seed**
  - Establish local ecotype herbaceous groundcover at locations indicated on plan map. Use this method in patches throughout the planned area to supplement what natives may already be present in the seed bank; or use in conjunction with plugs. Refer to the Conservation Cover Technical Guide (327a) for planting guidance. Use the Plant Materials Information table below to plan the species mixture. Contact an NRCS Biologist for assistance in species selection.

- Grasses or Forbs from plugs**
  - Establish local ecotype herbaceous groundcover at locations indicated on plan map. Use this method in patches throughout the planned area to supplement what natives may already be

present in the seed bank; or use in conjunction with plugs. Use the Plant Materials Information table below to plan the species mixture. Contact an NRCS Biologist for assistance in species selection.

**Plant Appropriate Hardwood Trees and Shrubs**

- Establish native hardwoods appropriate for the target natural community type. Plant patches of trees and shrubs using material from local seed sources if possible. If burning is a management tool, protect planted hardwood area from fire until established. Refer to the Tree and Shrub Establishment Technical Guide (612) for guidance and lists of species. Contact and NRCS Biologist for assistance in species selection.

Plant Materials Information								
Field	Ac	Species/cultivars	Ecotype/source	Plants/acre or seeding rate <sup>^</sup>	Total #	Kind of stock*	Planting Dates	Avg. spacing
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.
								ft. x ft.

<sup>^</sup> Pounds per acre of Pure Live Seed (PLS) where available

\*Seed, Plug, Cutting, Tubling, Container, Bare root

**Habitat Restoration and Management (check planned methods)**

Implement one or more of the following management actions according to the plan's schedule to maintain desirable early succession habitat characteristics and amounts in the planning area.

**Burn**

- Use prescribed fire on a rotational basis every 2-5 years (according to the NRCS Prescribed Burning job sheet (included in your plan) to control advance of succession and to maintain health of the native herbaceous groundcover.

**Brush Management/Herbaceous Weed Control**

- Apply an appropriate herbicide according to the product label's directions for controlling introduced grasses, non-native invasive species, or woody vegetation as soon as they are observed. Use Brush Management or Herbaceous Weed Control according to the NRCS Brush Management and/or Herbaceous Weed Control jobsheets included in your plan.
- Protect the habitat from herbicide damage, especially from adjacent cropland. When herbicide is used to manage the habitat, use directed sprays and management strategies to control drift as specified in the Brush Management and/or Herbaceous Weed Control specification included in this plan.
- Time the application to ensure the stage of plant growth maximizes control results.

Summer Treatment Needed for: Bahia grass, Bermuda grass, Dallis grass, Vasey's grass, Johnson grass, Sericea lespedeza and Bicolor lespedeza; deciduous woody plants

Fall Treatment Needed for: Tall fescue

Winter Treatment Needed for: Chinese or Japanese Privet

*Job Sheet – Restoration and Management of Rare and Declining Habitat (643)*

**Forest Stand Improvement**

- Remove all planted loblolly pine trees or heavily thin to a basal area less than 50 sq. ft. per acre to allow for regeneration or planting of appropriate vegetation.
- Mechanically remove thick woody competition that inhibits the growth of desired herbaceous plant community by using chainsaws, Gyro-trac, bush-hogging or roller-chopping. Clean all equipment prior to use on restoration site to prevent the transfer of invasive plant materials.

**Graze**

Use prescribed grazing (according to the NRCS Prescribed Grazing jobsheet included in your plan) to control advance of succession, or development of undesirable vegetation. Use of forage must not compromise the habitat forming purpose of this practice.

**Mow\***

Utilize a mower to:

- Control pest plants that cannot be controlled using other means (Mowing is not a preferred management practice since the thatch left on the ground inhibits native plant growth and movement of wildlife. If mowing is utilized, bale and remove thatch if possible. If thatch contains noxious weed seed, disposed of safely so seeds are not spread). Clean machinery prior to use on site to be sure invasive plant materials are not transferred to the site.
- Release new habitat plantings from competition with unwanted vegetation (spring mowing over planted native grasses and forbs)

\*Mowing must not compromise the habitat forming purpose of this practice.

**Wetland Restoration**

- Restore hydrology to all wetland included areas through the installation of ditch plugs, berm removal, rock crossings, or microtopography

**Habitat Management Schedule**

<i>Note to Planners: You decide how to illustrate the plan in this table. Use of Field #s, Acres, or ✓ is o.k.</i>						
Action	Acres	1st Year	2nd Year	3rd Year	4th Year	5th Year
Forest Stand Improvement						
Brush Management						
Burn						
Herbaceous Weed Control						
Plant: _____						
Plant: _____						
Plant: _____						
Wetland Restoration						

Circle yes if additional plans included:

<b>Prescribed Grazing Plan is attached:</b>	Yes	Not Applicable
<b>Brush Management or Herbaceous Weed Control Plan is attached:</b>	Yes	Not Applicable
<b>Prescribed Burning Plan is attached:</b>	Yes	Not Applicable

**Additional Operation and Maintenance requirements specific to this plan:**

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**Certification: Job Sheet 643**

Prepared by: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Approved by: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

**Installation**

**Meets NRCS Standards and Specifications?      YES      NO**

Certification by: \_\_\_\_\_ Date: \_\_\_\_\_