

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**CRITICAL AREA PLANTING**

(Ac.)

**CODE 342**

**DEFINITION**

Establishing permanent vegetation on sites that have or are expected to have high erosion rates, and on sites that have physical, chemical or biological conditions that prevent the establishment of vegetation with normal practices.

**PURPOSE**

- Stabilize areas with existing or expected high rates of soil erosion by water.
- Stabilize areas with existing or expected high rates of soil erosion by wind.
- Rehabilitate and revegetate degraded sites that cannot be stabilized through normal farming practices.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies to highly disturbed areas such as active or abandoned mined lands, urban conservation sites, road construction areas, conservation practice construction sites, areas needing stabilization before or after natural disasters such as floods, hurricanes, tornados and wildfires and other areas degraded by human activities or natural events.

**CRITERIA**

**General Criteria Applicable To All Purposes**

A site investigation shall be conducted to identify any physical, chemical or biological conditions that could affect the successful establishment of vegetation.

Species selected for seeding or planting shall be suited to current site conditions and intended uses.

No plants on the state noxious weeds list shall be planted.

Selected species will have the capacity to achieve adequate density and vigor within an appropriate period to stabilize the site sufficiently to permit suited uses with ordinary management activities.

Species, rates of seeding or planting, minimum quality of planting stock, such as pure live seed (PLS), method of seedbed preparation, and method of establishment shall be specified before application. Only viable, high quality seed or planting stock will be used.

Seeding or planting shall be done at a time and in a manner that best ensures establishment and growth of the selected species. A minimum of 80% ground cover or plant survival rate for trees or shrubs shall be considered successful establishment.

Planting dates shall be scheduled during approved dates for the species and to optimize soil moisture for germination and/or establishment.

Fertilization, mulching, or other practices for plant growth shall be timed and applied to accelerate establishment of selected species. Follow the criteria in the NUTRIENT MANAGEMENT (590) practice standard or apply an all-inclusive fertilizer and limestone application as described in Critical Area Job Sheet.

Plantings shall be protected from pests (e.g. weeds, insects, diseases, livestock, wildlife) as necessary to ensure stand establishment.

All soil amendment application and pest control shall follow the requirements in the PEST MANAGEMENT (595) practice standard.

The amount of plant biomass and cover needed to reduce wind and water erosion to the planned soil loss objective shall be determined using the current approved wind and/or water erosion prediction technology.

#### **Additional Criteria to Restore Degraded Sites**

If gullies or deep rills are present, they will be treated, if feasible, to allow equipment operation and ensure proper site and seedbed preparation.

Based on a soil test, soil amendments will be added as necessary to eliminate physical or chemical conditions that inhibit plant establishment and growth. Required amendments, such as compost or manure to add organic matter and improve soil structure and water holding capacity; agricultural limestone to increase the pH of acid soils; or elemental sulfur to lower the pH of calcareous soils shall be included in the site specification with amounts, timing, and method of application.

#### **CONSIDERATIONS**

Species or mixes that are adapted to the site and have multiple values should be considered. Native species should be considered when appropriate to site treatment.

Avoid species that may harbor pests. Species diversity should be considered to avoid loss of function due to species-specific pests.

Planning and installation of other conservation practices such as Diversions, Land Smoothing, Obstruction Removal, Surface and Subsurface Drains or Underground Outlets may be necessary to prepare a critical area for planting.

If mulching is needed, follow the Mulching (484) practice standard.

When planning nutrient applications and tillage applications, encourage soil carbon buildup while discouraging greenhouse gas emissions.

#### **PLANS AND SPECIFICATIONS**

Prepare plans and specifications for each field or management unit according to the criteria and operation and maintenance sections of this standard. Specifications shall describe the requirements for applying this practice to meet the intended purpose.

Record practice specifications using Critical Area Planting job sheets or other acceptable documentation.

The following elements shall be addressed in the plan, as applicable, to meet the intended purpose.

- Site Preparation
- Fertilizer Application
- Methods of Seeding/Planting
- Time of Seeding/Planting
- Selection of Species
- Seed Analysis
- Rates of Seeding
- Mulching

#### **OPERATION AND MAINTENANCE**

Use of the area shall be managed as long as necessary to stabilize the site and achieve the intended purpose.

Control or exclude pests that will interfere with the timely establishment of vegetation.

Inspections, reseeding or replanting, fertilization, and pest control may be needed to insure that this practice functions as intended throughout its expected life. Observation of establishment progress and success should be performed at regular intervals until the practice has met the criteria for successful establishment and implementation.

Where establishment of vegetation creates potential habitat for grass-nesting birds, the impacts of vegetative disturbance upon these birds and their nests should be considered and included in operation and maintenance plans.

USDA, NRCS. 2006. The PLANTS Database (<http://plants.usda.gov>, 19 October 2006). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.