

**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.
- Restore degraded sites that can not be stabilized through normal methods.

**CONDITIONS WHERE PRACTICE APPLIES**

On areas with existing or expected high rates of erosion or degraded sites that usually cannot be stabilized by ordinary conservation treatment and/or management, and if left untreated, could be severely damaged by erosion or sedimentation or could cause significant off-site damage.

**CRITERIA**

**General Criteria Applicable To All Purposes**

Species selected for seeding or planting shall be suited to current site conditions and intended uses. Selected species will have the capacity to achieve adequate density and vigor within an appropriate time frame 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 PLS or stem caliper, and method of establishment shall be specified before application. Only viable, high quality seed or planting stock will be used. See [Appendix 1](#) for herbaceous seeding/planting rates, dates, and adaptation. The application of a dead litter cover, where needed, will follow the guidance in [Appendix 2](#). Refer to Conservation Practice Standard (612) Tree / Shrub Establishment, species adaptation and planting rates when woody species will constitute all or part of the critical area planting.

When brush and/or trees must be removed from the work area to facilitate shaping the following categories will be used to describe the clearing operations:

**Light** – Removal of woody vegetation 12 feet or less in height with canopy cover of greater than 10% but less than 30%.

**Medium** – Removal of woody vegetation 12 feet or less in height with canopy cover of 30% or greater; or removal of mixture of woody vegetation with some greater than and some less than 12 feet in height with a canopy cover greater than 10% but less than 30%.

**Heavy** – Removal of woody vegetation 12 feet or greater in height with a canopy cover of greater than 30%.

The critical area must be filled shaped and smoothed as needed. The minimum treatment is to shape the area so that it can be established to perennial vegetation and maintained with normal farm equipment. When feasible slopes of 6:1 or flatter will be planned. Additional assistance of a qualified specialist will be utilized when slopes of 2:1 or steeper are to be vegetated.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

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Topsoil, if present, will be removed and stockpiled prior to shaping. Uniform application of topsoil will be made after shaping is complete.

All debris is to be removed from the shaped area and no debris or roots are to be buried in the shaped area.

The following categories will be used to describe shaping operations:

**Light** – Necessary excavation, filling, and shaping of gullies less than 4 feet deep. May include smoothing operations to remove small irregularities and rills (less than 1.5 feet deep) in land slopes or to obtain designed shape.

**Medium** - Necessary excavation, filling, and shaping of gullies greater than 4 feet deep, but not more than 8 feet deep; or numerous shallow gullies less than 4 feet deep, but closer than 100 feet apart. May include smoothing operations to remove small irregularities in land slopes or to obtain designed shape.

**Heavy** - Shaping of gullies greater than 8 feet deep, but not more than 20 feet deep; or numerous gullies less than 4 to 8 feet deep, but closer than 100 feet apart. May include smoothing operations to remove small irregularities in land slopes or to obtain designed shape.

**Extra Heavy** - Shaping and smoothing of gullies or defined gully networks with the main gully greater than 20 feet deep; and/or numerous gullies less than 8 but not more than 20 feet deep, and closer than 100 feet apart. May include smoothing operations to remove small irregularities in land slopes or to obtain designed shape.

Site preparation and seeding or planting shall be done at a time and in a manner that best ensures survival and growth of the selected species.

What constitutes successful establishment, e.g. minimum percent ground/canopy cover, percent survival, stand density, etc. shall be specified before application.

Fertilization, mulching, or other facilitating practices for plant growth shall be timed and applied to accelerate establishment of selected

species. Recommended fertilizer rates will be in accordance with the Conservation Practice Standard (590) Nutrient Management. Appropriate mitigating practices will be installed to reduce the risk of nutrient losses from the site.

Comply with all applicable federal, state, and local laws, rules, and regulations.

#### **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. When shaping is planned on areas of concentrated runoff water, including gullies and washes, channel stability and capacity analysis procedures used to design and evaluate grassed waterways shall be used to determine maximum grade and minimum channel dimensions of shaped areas. Treatment of gully flow areas will be according to Conservation Practice Standard (412) Grassed Waterway.

Soil amendments will be added as necessary to ameliorate or 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**

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

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

#### **PLANS AND SPECIFICATIONS**

Specifications for applying this practice shall be prepared for each site and recorded and filed using the approved specification sheets or narrative statements in the conservation plan.

TX-ENG-38, Waterway Data Sheet with altered heading may be used to document channel analysis and construction checkout for critical area planting areas that require shaping. TX ENG-294, " Critical Area Planting Data Sheet" is available to document and accept the practice whether shaping is required or not.

#### **OPERATION AND MAINTENANCE**

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

Control pests and exclude livestock 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.

