

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

RECREATION AREA IMPROVEMENT

(Acre)
CODE 562

DEFINITION

Establishing grasses, legumes, vines, shrubs, trees, or other plants or selectively reducing stand density and trimming woody plants to improve an area for recreation.

PURPOSE

To increase the attractiveness and usefulness of recreation areas and to protect the soil and plant resources.

CONDITIONS WHERE PRACTICE APPLIES

On any area planned for recreation use.

PLANNING CONSIDERATIONS

Water Quantity

1. Effects on the water budget, especially on volumes and rates of runoff, infiltration, and transpiration.

Water Quality

1. Effects of erosion and the movement of sediment, pathogens, and soluble and sediment-attached substances that could be carried by runoff. Important factors are short-term changes caused by construction (sediments, fuels, oils, and other chemicals) compared to long-term changes caused by the same substances resulting from recreation activities.
2. Effects of changes in ground water from infiltrating soluble substances associated with vegetation management and recreation activities.

SPECIFICATIONS GUIDE

Treatments, plant materials, and maintenance measures for each type of recreation area.

Additional Specification Guidelines

I. Grasses

Plant Selection.

Refer to the Soil Suitability Tables in Section II-D of the Technical Guide as an aid in plant selection for specific soil sites.

For Lawns and General Use Areas.

Common and/or Tiflawn bermudagrass, Matrella zoysia, Meyer zoysia, Emerald zoysia, centipede, carpetgrass, tall fescue, and Kentucky bluegrass.

For Heavy Use Areas.

Common, Tiflawn, or Tufcote bermudagrass, tall fescue, Pensacola bahiagrass.

Soil Preparation.

Remove all objectionable objects such as rocks, roots, and sticks from the area. Grade to obtain slopes to accommodate regular maintenance equipment. To facilitate drainage, surfaces should slope 1 percent (1 ft. in 100 ft.) but not more than 5 percent (5 ft. in 100 ft.) away from buildings. On areas where extensive grading is done, stockpile topsoil and spread uniformly over the graded area when grading is completed. On areas graded to the subsoil, haul in topsoil and organic matter such as peat, leaf mold, or other decomposed organic material.

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

Apply lime at the rate of 1 to 2 tons per acre or the amount indicated by soil tests. Use only lime meeting specifications of the Georgia Department of Agriculture. NOTE: Usually no lime is needed for centipede grass as its optimum pH range is 5.0 to 6.0.

Apply fertilizer according to soil test. In absence of soil test, apply 1,000 pounds of 6-12-12 or 5-10-10, or 800 pounds of 10-10-10 per acre for most grasses. For centipede use 350 pounds of 12-4-4 fertilizer per acre. Thoroughly incorporate the lime and fertilizer into the soil.

Thoroughly pulverize the soil to a depth of 4 to 5 inches incorporating the topsoil, lime, fertilizer, and organic material. Smooth and firm before seeding.

Planting.

Place 4 to 6-inch sprigs in 12-inch rows, 3 to 6 inches apart in the row. Cover rooted part of sprig well with soil but leave the tip end exposed.

Mix seed with a carrier such as sand and spread evenly by hand or seeder. Cover lightly and firm seeded area by rolling with a light roller or cultipacker. Refer to Table 1 for additional information:

Spread mulch uniformly over the area good quality small grain straw at the rate of 2 tons per acre (90 lbs. per 1,000 sq. ft.). Straw should be free of seeds of competing plant species. Smaller amounts of straw may be used on flatter slopes when sprigs are planted. Anchor mulch with emulsified asphalt, special tacking agents, or with a mulch packer disk.

Apply irrigation water slowly to saturate the soil. Repeat as needed to keep the soil thoroughly moist until the stand is well established.

Maintenance

Thatch Removal. Prior to the growing season, mow as closely as possible before growth begins. Rake and discard the thatch.

Begin mowing as soon as the grass is tall enough to cut. Table 2 provides general mowing recommendations for specific grasses:

In the absence of rain, irrigate once a week, wetting the ground to a depth of 4 to 5 inches.

Follow soil test recommendations.

NOTE: Always apply fertilizer when grass is dry and water thoroughly after application.

Disease and Insect Control measures vary according to location and are changed often as new and improved pesticides become available. Contact the local Cooperative Extension Service office for assistance concerning disease and insect control recommendations.

Prevention is the best method of weed control. Weeds will pose little problem in a well-established and properly managed turf. Spot treatment is sometimes necessary. Contact the local Cooperative Extension Service office for recommendations for specific problems.

II. Trees

Plant Selection.

Refer to the Woodland Suitability Tables in Section II-F of the Technical Guide as an aid in selecting plants for use on specific soil sites. For wind protection, screening and barriers, Table 3 provides a list of suggested plants and the resource areas in which they are adapted.

For shade and/or namentation, Table 4 provides a list of suggested plants and the resource areas in which they are adapted.

To attract song birds and other wildlife species, red maple, flowering dogwood, sweet bay, red bay, black cherry, mulberry, cypress, magnolia, red bud, oaks, pecan, beech, sweet gum, black gum, pine and ash are the suggested trees.

Plant during the dormant season, preferably from December through February. Ball and

burlap (B&B) or container grown plants can be planted at any time with proper care.

Planting

Space plants in accordance with growth habits and to accomplish the desired objectives. The hole should be dug about 2 feet wider and one-half foot deeper than the spread of the roots. Mix thoroughly one-fourth pound of fertilizer with soil in the bottom of the hole. Subsoil removed should be discarded and replaced with a peat moss-topsoil mixture. Work the mixture around the roots to make certain that no air pockets exist. After filling the hole two-thirds full, water the tree and fill the remaining area with topsoil, leaving a saucer-like depression to hold water.

Maintenance

Control plant competition by mulching and/or mechanical means. Protect from fire and livestock. Fertilize each spring with a complete fertilizer such as 8-8-8 at a rate of 1 pound per inch of tree diameter. Broadcast the fertilizer out to the drip line and not closer than 2 feet to the trunk.

III. Shrubs

Plant Selection

For beautification, Table 5 provides a list of suggested plants and the resource areas in which they are adapted.

For screening, Table 6 provides a list of suggested plants and the resource areas in which they are adapted.

To attract song birds and other wildlife, crepe myrtle, autumn olive, cherry elaeagnus, thorny elaeagnus, hawthorn, laurel sherry, photinia, privet (chinese, japanese, or glossy), pryacantha, viburnum and/or wax myrtle are the suggested shrubs.

Planting

Plant during the dormant season; between November and March is usually best. Container

grown shrubs can be planted at any time of the year with proper watering. Size of hole depends on size of shrub to be planted; however, a minimum size of 24 inches wide and 16 inches deep is recommended. Mix the excavated soil with one-third organic matter by volume. Place the shrub in the hole at the same depth it was previously growing. Fill and tamp the soil around the shrub. Water thoroughly and mulch.

Maintenance

Water thoroughly and deeply during the first growing season. Fertilize lightly with a complete fertilizer in early spring and again in May or June.

IV. Ground Covers

Ground covers are useful on areas where it is difficult to grow or maintain lawn grasses. Ground covers are particularly useful in densely shaded areas and on steep slopes.

Plant Selection

Table 7 provides a list of suggested plants and the resource areas in which they are adapted.

Planting

Plantings can be made anytime during growing seasons; however, early spring is best. Dig the soil at least 6 inches deep. Spread 2 to 3 inches of peat moss, well-rotted manure, or leaf mold over the ground. Spread fertilizer over the area and spade into the soil. Space plants according to species to cover the area as soon as possible. Water sufficiently to allow deep penetration into the soil.

Maintenance

Fertilize according to soil tests in winter and again in early spring. Mulch with organic material. Weed by hand. Water regularly during the growing season.

V. Managing Natural Area.

Manipulation of natural vegetation should be planned and carried out under the supervision of a technician well acquainted with plant identification and use.

Plant Selection

The following trees provide beautiful foliage during fall months:

Yellow foliage

Ashes, American basswood, boxelder, hackberry, beech, sugar maple, hickory, Kentucky coffeetree, fringetree, sassafrass, silver maple, sycamore, yellow poplar.

Red to scarlet foliage

Dogwood, sweetgum, red maple, persimmon, scarlet oak, sourwood, blackgum.

Wildlife and Song birds

Beech, blackcherry, blackgum, dogwood, holly, mulberry, oak, pecan, pine, redcedar, sweetgum.

All dead and broken limbs should be removed for safety. Except where needed for screening, all branches should be removed to a height of 8 feet from ground level. Areas used for horseback riding should be pruned to a height of 12 feet. Pruning of trees at overlooks and vistas should be held to a minimum. Prune during the dormant season. Cut limbs close to the tree trunk. Paint areas where limbs removed were larger than 1 inch in diameter.

In camping and picnic areas, trees should be thinned to a spacing resulting in a 50 percent canopy cover to permit growth of grass and for maintenance purposes. Remove first those trees whose form, condition, growth habitat, or other characteristics render them a hazard to people using the area. Retain as large a variety of trees as possible on the area. Plan ahead so as to provide shade where needed. Remove old snags and logs, especially around picnic and camping areas that might harbor snakes. Eliminate poison sumac and poison ivy from the area.

Apply a complete analysis fertilizer at the rate of 1 pound per inch of tree stem diameter for plants under 6 inches in diameter and 2 pounds per inch of tree stem diameter for those larger than 6 inches.

TABLE 1

| <u>Seed</u> | <u>Adaptation</u> | <u>Shade Tolerance</u> | <u>Planting Date</u> | <u>Rate in Pounds Per Acre</u> |
|--------------------|---------------------------|------------------------|----------------------|--------------------------------|
| Common bermuda | All Georgia | poor | 3/1-7/1 | 15 |
| Centipede | South and Central Georgia | fair | 3/1-7/1 | 4 |
| Carpet | South and Central Georgia | good | 3/1-7/1 | 20 |
| Kentucky bluegrass | North Ga. | good | 9/1-11/1 | 25 |
| Tall fescue | North Ga. | good | 9/1-11/1 | 50 |

TABLE 2

| <u>Grass</u> | <u>Frequency</u> | <u>Height (in.)</u> | <u>Type Mower</u> |
|---|------------------|---------------------|-------------------|
| Pensacola bahiagrass | 7-10 days | 2-2 1/2 | Reel or Rotary |
| Common bermudagrass | 5-7 days | 1-1 1/2 | Reel or Rotary |
| Tiflawn bermudagrass | 5-7 days | 1/2, 3/4 1 1/2 | Reel or Rotary |
| Tufcote bermudagrass | 5-7 days | 3/4-1 1/2 | Reel or Rotary |
| Carpetgrass | 10-14 days | 1-2 | Reel or Rotary |
| Tall fescue | 6-10 days | 1 1/2-2 | Reel or Rotary |
| Centipede | 10-14 days | 1 1/2-2 | Reel or Rotary |
| Emerald zoysia, Matrella zoysia, and Meyer zoysia | 7-10 days | 1/2-1 | Reel |

TABLE 3

| <u>Plant</u> | <u>Coastal</u> | <u>Piedmont</u> | <u>Mountains</u> |
|-----------------|----------------|-----------------|------------------|
| Deodar cedar | x | x | x |
| American holly | x | x | x |
| Cassine holly | x | x | x |
| Foster holly | x | x | x |
| Yaupon holly | x | x | x |
| Laurelcherry | x | x | x |
| Camphortree | x | x | x |
| Redcedar | x | x | x |
| White pine | | | x |
| Loblolly pine | x | x | x |
| Canada hemlock | | | x |
| Live oak | x | | |
| Magnolia | x | x | |
| Eastern hemlock | | | x |
| Spruce | | | x |

TABLE 4

| <u>Plant</u> | <u>Coastal</u> | <u>Piedmont</u> | <u>Mountains</u> |
|------------------|----------------|-----------------|------------------|
| Sugar maple | | | x |
| Red maple | x | x | x |
| Florida maple | x | x | x |
| Pecan | x | x | |
| Sugar hackberry | | x | x |
| Katsura tree | | x | x |
| White ash | | x | x |
| Sweetgum | x | x | x |
| Yellow poplar | x | x | x |
| White poplar | x | x | x |
| White oak | x | x | x |
| Eastern red oak | x | x | x |
| Sawtooth oak | x | x | x |
| Scarlet oak | x | x | x |
| Laurel oak | x | x | |
| Pin oak | | x | x |
| Bur oak | | x | x |
| Water oak | x | x | x |
| Willow oak | x | x | x |
| Southern red oak | x | x | x |
| Live oak | x | | |

TABLE 5

| <u>Plant</u> | <u>Coastal</u> | <u>Piedmont</u> | <u>Mountains</u> |
|---------------------------|----------------|-----------------|------------------|
| Dwarf aucuba | x | x | x |
| Japanese flowering quince | | x | x |
| Rotunda holly | x | x | x |
| Showy jasmine | x | x | x |
| Oregongrape | | x | x |
| Sargent barberry | x | x | x |
| Flowering quince | x | x | x |
| Border forsythia | x | x | x |
| Capejasmine | x | x | |
| Shrub althea | x | x | x |
| Bigleaf hydrangea | x | x | x |
| Dwarf burford holly | x | x | x |
| Marrow honeysuckle | | x | x |
| Box honeysuckle | | x | x |
| Leatherleaf mahonia | | x | x |
| Mock orange | | x | x |
| Burkwood viburnum | | x | x |
| Sasanqua camellia | x | x | x |
| Foster holly | x | x | x |
| Chinese holly | x | x | x |
| Burford holly | x | x | x |
| Oleander | x | x | x |
| Fortunes osmanthus | x | x | x |
| Pyracantha | x | x | x |

TABLE 6

| <u>Plant</u> | <u>Coastal</u> | <u>Piedmont</u> | <u>Mountains</u> |
|---------------------|----------------|-----------------|------------------|
| Boxleaf holly | | x | x |
| Glossy abelia | x | x | x |
| Sasanqua camellia | x | x | x |
| Fruitland elaeagnus | x | x | x |
| Feijoa | x | | |
| Cassine holly | x | x | x |
| Foster holly | x | x | x |
| Burford holly | x | x | x |
| Yaupon holly | x | x | x |
| Japanese privet | x | x | x |
| Glossy ligustrum | x | x | x |
| Southern waxmyrtle | x | x | |
| Holly osmanthus | x | x | x |
| Laurestinus | x | x | |
| Chinese photinia | x | x | x |
| Southern yew | x | x | |
| Sweet Viburnum | x | x | |
| Red cedar | x | x | x |

TABLE 7

| <u>Plant</u> | <u>Coastal</u> | <u>Piedmont</u> | <u>Mountains</u> |
|--|----------------|-----------------|------------------|
| Bugleweed | x | x | x |
| Creeping lilyturf | x | x | x |
| Crown vetch | | | x |
| English ivy | x | x | x |
| Japanese holly | x | x | x |
| Japanese spurge | x | x | |
| Juniper (japgarden, creeping, savin, chinese, shore) | x | x | x |
| Memorial rose | x | x | x |
| Periwinkle | x | x | x |
| Wandering jew | x | x | x |
| Wintercreeper | x | x | x |
| Wintergreen | x | x | x |
