

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD AND SPECIFICATIONS**

RECREATION AREA IMPROVEMENT

(acre)
CODE 562

DEFINITION

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

PURPOSES

- * Enhance recreational use.
- * Protect the soil from erosion.
- * Provide plant cover for intensive use areas, screenings, barriers, windbreaks, and beautification.

CONDITIONS WHERE PRACTICE APPLIES

On any area planned for recreation use.

CRITERIA

General Criteria Applicable to All Purposes

Plant Materials - Grasses

Turfgrasses should be used as a ground cover for intensive use areas such as picnic areas, play grounds, lawns, and parkways. Grasses planted with legumes are suitable for scenic, aesthetic or natural areas that experience little or no on-site traffic.

All required site smoothing, grading, shaping, drainage work, and installation of recreation facilities shall be completed prior to seedbed preparation.

Seeding mixtures are desired due to the variability of sites. When feasible, combine two or more

species and adjust seeding rate for the percent of each species desired in the stand of vegetation.

Medium to Intensive Use or Sensitive Areas

For site and seedbed preparation, soil fertility and lime, temporary cover, seeding and sodding methods, companion crops, and planting dates, use NRCS conservation practice standard CRITICAL AREA PLANTING (342). For mulching requirements, refer to NRCS conservation practice standard MULCHING (484).

When establishing vegetation on intensive use areas, select sod-forming grasses rated excellent for erosion control in the CRITICAL AREA PLANTING (342) conservation practice standard and increase the seeding rate by 100 percent. Select the grass species based on growth characteristics suited to the site and desired use of the stand.

Low Use Areas

When establishing perennial vegetation on areas where low use is anticipated and erosion control is not critical, select suitable grass and legume seeding mixtures and rates from the CONSERVATION COVER (327) conservation practice standard.

Plant Materials - Trees and Shrubs

Trees and shrubs can be used to accomplish the following in recreation areas:

- a. reduce air temperatures
- b. add color and diversity to the landscape
- c. increase the scenic value
- d. control people movement
- e. block unfavorable views
- f. attract wildlife

For site preparation, spacing requirements, planting methods, and species selection, follow

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version, contact the Natural Resources Conservation Service.
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procedures in the TREE / SHRUB ESTABLISHMENT (612) conservation practice standard.

Plant Materials - Non-Grass Ground Covers

Non-grass ground covers are used most frequently for the following conditions:

- a. steep banks or slopes
- b. shady areas under trees and next to buildings
- c. very wet or very dry locations
- d. underplantings in shrub borders

For site and seedbed preparation, use conservation practice standard CRITICAL AREA PLANTING (342).

The arrangement and spacing of ground covers depends on its growth characteristics and intended use. The chart below shows the area that approximately 100 plants will cover at various distances.

Planting Distance (inches)	Area Covered (sq. ft.)
4	11
6	25
8	44
12	100
18	225
24	400
36	900
48	1600

Plants may be planted either spring or fall. Spring is preferred planting period.

Select suitable species from Table I of this standard.

Site Treatments - Pruning

On recreational areas prune woody vegetation for safety, better visibility, or improved appearance and health.

Pruning scars can be unattractive. Keep pruning activities to a minimum in intensive-use recreation areas.

Do not remove more than one-third of the live crown to maintain tree health and vigor.

Prune as close as possible to the trunk. Do not cut into the branch collar to improve the trees

ability to seal off the wound. It is important to avoid tearing the bark from the trunk during pruning operations. (Refer to UMC Guide Sheets 6866 and 6870)

Remove large limbs (> 2" diameter) by the three-step, stub-cut process:

- a. Make a cut one-third of the way through the branch from underneath the limb about one foot from the trunk.
- b. Make a second cut on top of the limb and one or two inches above the undercut. Cut through until the limb is removed.
- c. Make a final cut along the "branch collar" at the base of the branch to remove the stub. This cut is about a 45-degree angle to the trunk.

Prune older stems of multi-stemmed shrubs back to the ground.

Prune plants during the proper time of the year. Light pruning and the removal of dead wood can be done anytime. As a general guide, use the following table:

Type	Pruning Season
deciduous trees and shrubs	any season; but late winter most common
pine	late June, early July
junipers	mid-April

Site Treatments - Cutting/Thinning

Determine stand density based on the function of the area. Denser stands will be needed for erosion control, wildlife cover, pedestrian traffic direction, and screening undesirable views. Lower stand densities are suitable for picnic areas, campgrounds, wildlife browse, and any "park-like" appearances.

Tree and shrub removal should be kept to a minimum. Restrict cuttings to the following purposes:

- a. Vistas: Plan vista cuttings at places where a view is rewarding - panoramic views, bodies of water, and unique landscape patterns.
- b. Roadside: Minimize uniform monotonous corridors. Cut at uneven intervals to provide variety, contrast and irregularity along borders. Restrict cuttings to less than one

- acre. Favor flowering trees and shrubs and plants with unusual shape, form or color.
- c. Edge transitions: Reduce abrupt changes from open areas to forests. Create transition zones by leaving groups of trees and clumps of shrubbery. Encourage plants with showy flowers, attractive fruit, or bright fall colors.
- d. Open woods: Reduce canopy cover to 40 percent or less in intensive use areas. Thin intermediate and codominate trees. To decrease hazards from wind-thrown branches, do not reduce canopy over more than 40 percent in any single cutting. To prevent sprouting, treat stumps with appropriate herbicides ¹. (Refer to UMC publication MP581 "Weed and Brush Control Guide" for herbicide recommendations.) Retain old growth trees and species that produce light shading such as ash, birch, Kentucky coffee tree, eastern black walnut, and shortleaf pine.
- e. Safety: Remove trees and shrubs that pose a hazard (e.g. dead, dying, vision obstruction) to user safety. Vehicles and people should be fully visible at all road intersections. Cut trees and shrubs flush with the ground line. Eliminate poison ivy from intensive use areas.

CONSIDERATIONS

Vegetative plantings may decrease runoff through retarded flows providing the opportunity for increased infiltration.

Short term sediment increases may be noted due to construction activities. The long term effect of recreation improvements may be a reduction of sediment in surface water. Surface water quality may be degraded by an increase in fertilizers, pesticides, organic wastes, and other chemicals associated with recreational activity.

Site diversity and vegetation form, color, texture and size are important features to recreational users.

Before beginning recreation area improvements, inventory and classify potential recreation settings. Determine land and water acreage and identify unique features of the area such as wetlands,

bluffs, and areas with exceptional scenery. Safety hazards should also be noted.

PLANS AND SPECIFICATIONS

Plans and specifications for recreation area improvement shall be in keeping with this standard and shall describe the essential requirements to achieve the intended purposes.

OPERATION AND MAINTENANCE

Grass (medium/intensive use areas)

Provide annual fall topdressings of fertilizer as follows:

Nitrogen	60 lb./ac.
Phosphate	20 lb./ac.
Potash	60 lb./ac.

If mowing is desired or needed, use the following mowing heights:

Species	Mowing Height
Tall fescue	1.5 to 3 inches
Bermudagrass	1 to 2 inches
All Other Species	1.5 to 3 inches

Do not mow on set schedules. The grass should be cut often enough so that not more than one-third of the topgrowth is removed at any one mowing. Cut the grass before it is 50 percent higher than the desired mowing height.

For shaded areas:

- Additional watering may be necessary. A heavy, deep watering once or twice a week is best.
- Remove leaves immediately after leaf fall in autumn to allow grasses additional growth periods.
- Mow one inch higher than the recommended mowing heights.

Grass (low use areas)

Limit mowing to that necessary for preventing the spread of noxious weeds. When possible, limit the mowing period to protect ground-nesting birds. The desired mowing dates are from July 15 through August 15.

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Trees and Shrubs

New plantings shall be managed as follows:

- a. Control competing vegetation for at least 3 years in an area extending a minimum of 2 feet each way from the plant. This may be done by using mulch, mechanical means or herbicides.¹
- b. Replace plants that die.

Existing vegetation shall be managed as follows:

- a. Inspect recreation areas periodically to check on safety hazards such as dying or damaged trees, snags, and poison ivy.
- b. Begin inspections just prior to seasonal use and continue on a monthly basis.

¹ *Apply all chemicals according to label directions and heed all precautions.*

TABLE I - General Characteristics and Plant Spacing for Selected Ground Covers

Species			Height	Attractive		Spacing	
Common Name	Evergreen	Vine	(inches)	Flowers	Shade	Sun	(inches)
Carpet bugle (<i>Ajuga reptans</i>)	semi		4	X		X	12-18
Creeping juniper (<i>Juniperus horizontalis</i>)	X		12			X	24-36
Moss pink (<i>Phlox subulata</i>)			8	X		X	4-6
English ivy (<i>Hedera helix</i>)	X	X	8		X		18-24
Hall's honeysuckle (<i>Lonicera japonica halliana</i>)	semi	X	18			X	18-24
Plantain lily (<i>Hosta spp.</i>)			18	X	X		4-8
Japanese spurge (<i>Pachysandra terminalis</i>)	X		6		X		8-12
Periwinkle (<i>Vinca minor</i>)	X		6	X	X	X	12-18
Wintercreeper (<i>Euonymus fortunei`Colorata</i>)	X		10		X	X	18-24
Virginia creeper (<i>Parthenocissus quinquefolia</i>)		X	18		X	X	18-24

NOTES:

1. None of the above plants can be used as ground covers in traffic areas.
2. A staggered row planting will result in the quickest cover of the area.
3. A one-inch mulch layer of peat moss, shredded bark, or similar organic material will conserve soil moisture and reduce weed growth.
4. An annual spring application of a 5-10-5 or similar analysis fertilizer at the rate of 3 pounds per 100 square feet is recommended.
5. The closer spacing value will promote quicker ground cover closure.