

**NATURAL RESOURCES CONSERVATION SERVICE**  
**CONSERVATION PRACTICE STANDARD**  
**RECREATION LAND GRADING AND SHAPING**

(Ac.)

**CODE 566**

**DEFINITION**

Recreation Land Grading and Shaping is reshaping the surface of the land to support recreational land use.

**PURPOSE**

This practice may be applied as part of a resource management system to support one or more of the following purposes:

- Establish or improve effective use of the land area for recreation.
- Minimize on-site and off-site damage to resources from recreational land use.

**CONDITIONS WHERE PRACTICE APPLIES**

This practice applies to land areas where surface irregularities, slopes, obstructions, or surface drainage interfere with planned recreational use or where such use requires designed land surfaces.

**CRITERIA**

**General Criteria Applicable to All Purposes**

All planned work must comply with federal, state, local and tribal laws and regulations.

The planned grading or shaping must be conducive to the overall recreation area and aesthetically blend with the general landscape and surroundings.

The planned grading or shaping must be configured to minimize adverse on-site and off-site impacts such as accelerated erosion, riparian zone degradation, stream channel and streambank damage, hydrology modification, other water resource damage, aesthetics or unacceptable damage to wildlife habitat, fragmentation, or restrict wildlife movement.

**Grading and Shaping.** If only shaping is required, the cuts and fills may be estimated by observation or by a minimum amount of surveying. If grading to uniform surfaces is required, the design must be based on a complete topographic or grid survey. Grading and shaping for specific uses, such as athletic fields must be according to the requirements of the intended use.

Cuts and fills must be balanced to the greatest extent possible.

Soil compaction and displacement must be kept to a minimum.

**Surface Drainage.** Plans must include measures for removing or otherwise providing for control of excess surface water.

**Erosion Control.** Plans must include provisions for control of erosion. Disturbed areas must be established to vegetation as soon as practicable after construction. If soil or climatic conditions precludes the use of vegetation, and protection is needed, non-vegetative means, such as mulches or gravel, may be used. Seedbed preparation, seeding, fertilizing, and mulching must be according to the appropriate conservation practice standard in the local Field Office Technical Guide. Use vegetation adapted to the site that will accomplish the desired purpose. Preference must be given to native plant species. If native plant materials are not adaptable or proven effective for the planned use, then non-native species may be used.

**CONSIDERATIONS**

Consider adjoining land uses and the proximity to residences, utilities, cultural resource areas, threatened and endangered species of plants and animals, wetlands or other

environmentally sensitive areas, and areas of special scenic value.

Consider the effects of increased recreation and activities on the quality of both surface and ground water quality.

Consider maintaining or improving habitat for fish and wildlife where applicable.

Where feasible and appropriate, soil material suited for plant growth should be salvaged, stockpiled and protected for use as final cover material.

### **PLANS AND SPECIFICATIONS**

Plans and specifications for recreation land grading and shaping must be in keeping with this standard and must describe the requirements for applying the practice to achieve its intended purpose. Plans and specifications must include construction plans, drawings, job sheets or other similar documents. These documents must specify the requirements for installing the practice, including the kind, amount and quality of materials to be used.

### **OPERATION AND MAINTENANCE**

An Operation and Maintenance (O&M) plan shall be prepared for and reviewed with the landowner or operator. The plan shall specify

that the treated areas and associated practices are inspected annually and after significant storm events to identify repair and maintenance needs.

### **REFERENCES**

U.S. Department of Agriculture, Natural Resources Conservation Service, 2009. Specifications for Construction Contracts. National Engineering Handbook, Part 642. Washington, DC.

U.S. Department of Agriculture, Natural Resources Conservation Service, 2008. Engineering Field Handbook, Chapter 1. Surveying. National Engineering Handbook, Part 650.01, Washington, DC.

U.S. Department of Agriculture, Natural Resources Conservation Service, 1990. Engineering Field Handbook, Chapter 4. Elementary Soils Engineering. National Engineering Handbook, Part 650.04, Washington, DC.

U.S. Department of Agriculture, Natural Resources Conservation Service, 1961. Irrigation Land Leveling. Section 15, Chapter 12. National Engineering Handbook, Part 623.12. Washington, DC.

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#) or visit the [Field Office Technical Guide](#).