

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

LAND GRADING

(Acre)

CODE 744 CA INTERIM

DEFINITION

Altering the surface of the land to meet the requirements of the planned facilities, or the planned use of land.

Scope

This permits effective use of the land area for the intended purpose with erosion and runoff being controlled.

PURPOSES

To provide suitable land surfaces for the desired land use, plants and animals.

CONDITIONS WHERE PRACTICE APPLIES

On sites where surface irregularities, slopes, kinds of soil, obstructions, or wetness interfere with planned use; or where such use requires a designed land surface.

CRITERIA

Special attention shall be given to maintaining or improving habitat for fish and wildlife where applicable.

Shaping

If only shaping is required, the cuts and fills may be made by observation or by a minimum amount of work with an engineer's level.

Grading

If grading to uniform surfaces if required, or to a prescribed layout, the design shall be based on a complete topographic or grid survey.

Erosion control and drainage. The requirements for erosion control and surface and subsurface drainage shall be included in the plan.

Vegetation

Disturbed areas shall be established to vegetation as soon as practicable after grading. Seedbed preparation, seeding, fertilizing, and mulching shall conform to practice standard 342-Critical Area Planting, or other conservation practices specified by the designer.

CONSIDERATIONS

Water Quantity

1. Effects of grading on runoff and surface storage.
2. Effects of the amount and timing of decreased infiltration on evapotranspiration, change in soil moisture in the root zone, and deep percolation.
3. Effect on the water budget, especially on volumes and rates of runoff, infiltration, deep percolation, and evaporation.
4. Potential for changes in plant growth and transpiration resulting from changes in the volume of soil water.

Water Quality

1. Effects of erosion and sediment yield on changes in runoff. Factors are the slope of the land before and after grading, the results caused by the construction process, and the amount of vegetation reestablished on the graded or shaped site.
2. Effects on ground water quality of decreased loading of dissolved pollutants, particularly the dissolved nutrients from decaying surface residues.
3. Effects of increased recreation and activities on the quality of both surface and ground water quality.
4. Effects on erosion and the movement of sediment and soluble and sediment attached substances carried by runoff.

5. Effects from the use and management of nutrients and pesticides on surface and ground water quality.
6. Short-term and construction effects of installation on downstream water resources.
7. Potential for earth moving to uncover or redistribute toxic materials, such as saline soils, and make them available to water or plants.
8. Effects on the visual quality of downstream water resources.

maintaining the system to insure that it functions properly. It should also provide for periodic inspections and prompt repair or replacement of damage components.

Endangered Species Considerations

Determine if installation of this practice with any others proposed will have any effect on any federal or state listed Rare, Threatened or Endangered species or their habitat. NRCS's objective is to benefit these species and others of concern or at least not have any adverse effect on a listed species. If the Environmental Evaluation indicates the action may adversely affect a listed species or result in adverse modification of habitat of listed species which has been determined to be critical habitat, NRCS will advise the land user of the requirements of the Endangered Species Act and recommend alternative conservation treatments that avoid the adverse effects. Further assistance will be provided only if the landowner selects one of the alternative conservation treatments for installation; or at the request of the landowners, NRCS may initiate consultation with the Fish and Wildlife Service, National Marine Fisheries Service and/or California Department of Fish and Game. If the Environmental Evaluation indicates the action will not affect a listed species or result in adverse modification of critical habitat, consultation generally will not apply and usually would not be initiated. Document any special considerations for endangered species in the Practice Requirements Worksheet.

PLANS AND SPECIFICATIONS

Plans and specifications for site land grading and shaping shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

OPERATION AND MAINTENANCE

An operation and maintenance plan must be prepared by the Designer for use by the owner or other responsible for operating this practice. The plan should provide specific instructions for operating and