

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

LAND SMOOTHING

(Ac.)

CODE 466

DEFINITION

Removing irregularities on the land surface.

PURPOSE

To improve surface drainage, provide for more uniform cultivation, and improve equipment operation and efficiency.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on areas where depressions, mounds, old terraces, turn-rows, and other surface irregularities interfere with the application of needed soil and water conservation and management practices.

It is limited to areas having adequate soil depth or where topsoil can be salvaged and replaced.

This practice does not apply to the regular maintenance on irrigated land or on land that has been modified using practice standards Precision Land Forming (462) or Irrigation Land Leveling (464).

CRITERIA

Federal, State and Local Laws and Permits

Design and construction activities shall comply with all federal, state, and local laws, rules, and regulations governing activities in or along streams and pollution abatement, health, utility and safety activities.

The owner or operator is responsible for securing all required permits or approvals

and for performing all planned work in accordance with such laws and regulations. NRCS employees are not to assume responsibility for procuring these permits, rights, or approvals, or for enforcing laws and regulations. NRCS may provide the landowner or operator with technical information needed to obtain the required rights or approvals to construct, operate, and maintain the practice.

Permits may be required from the following agencies when obstruction removal is performed within the boundaries of a stream or floodplain or if burning is required:

- 1. WV Department of Environmental Protection (Air, Land, Water and Waste, Permitting, other)***
- 2. Division of Natural Resources Office of Land and Streams***
- 3. US Fish and Wildlife Service***
- 4. WV Division of Forestry***
- 5. WV Dept. of Agriculture***
- 6. Local, state and county ordinances***

All required permits shall be approved before construction implementation.

The extent of rough grading required and tolerances of the finished smoothing job shall be in keeping with the requirements of the planned cropping system.

Construction operations shall be carried out in such a manner that erosion and air and water pollution are minimized.

NRCS, NHCP
July, 2002

NRCS, WV
September 2012

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

Note: Bold italics is information added or changes made by NRCS WV.

Irregularities shall be smoothed to the degree required for the planned use.

The land to be smoothed shall be cleared of vegetative matter and trash.

An adequate field investigation and survey shall be made to determine the following:

1. ***Location and scope of the land smoothing operation.***
2. ***Limitations due to soil depth. Soil borings may be necessary.***
3. ***Location of any appurtenant structures, conservation practices, and erosion and sediment control measures to be installed in conjunction with the land smoothing operations.***

Depth of cuts shall be controlled to minimize exposure of subsoil and parent material.

Fill areas shall be compacted by routing the construction equipment over the areas.

The length and degree of finished slopes shall be suited to the final land use and particular soil type.

When smoothed land is not immediately planted to crops and no further construction activity will occur, vegetation shall be established in accordance with WV Conservation Practice Standard Critical Area Planting (342) or Pasture and Hayland Planting (512).

CONSIDERATIONS

Where possible, the ground surface should be plowed or disked prior to smoothing.

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

Effect on erosion and the movement of sediment and soluble substances attached to sediment carried by runoff.

Potential for earth moving to uncover or redistribute toxic materials, such as saline soils.

Effects on wetland hydrology and/or wetland wildlife habitat.

Potential impacts to existing utilities.

Effects on soil loss due to increased wind erosion potential and subsequent deposition.

PLANS AND SPECIFICATIONS

Plans and specifications for land smoothing shall be in keeping with this standard and shall describe the requirement for applying the practice to achieve its intended purpose.

Additional requirements for support data are provided in 210-VI-EFH, Amendment WV-45 (Nov 1996), WV5-23, "Preparation of Engineering Plans Design and Construction Support Data for Conservation Practices."

OPERATION AND MAINTENANCE

Actions shall be carried out to insure that this practice functions as intended. Such actions shall include performing maintenance when needed to insure that surface irregularities are maintained at the degree of smoothness required.