

NATURAL RESOURCES CONSERVATION SERVICE

VIRGINIA CONSERVATION PRACTICE STANDARD

LAND CLEARING

(Acre)

Code 460

DEFINITION

Removing trees, stumps, and other vegetation from wooded areas.

PURPOSE

To achieve needed landuse adjustments and improvements in the interest of soil and water conservation and in keeping with the capabilities of the land.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to wooded areas where the removal of trees, stumps, brush, and other vegetation is needed in carrying out a soil and water conservation plan, and the land to be cleared will be used according to its capabilities.

CRITERIA

Clearing and disposal methods shall be according to applicable federal, state, and local laws and with due regard to the safety of persons and property.

NRCS assistance will only be provided for land clearing activities involving agricultural land, in accordance with a Resource Management System conservation plan developed for the tract of land. The landowner is responsible for State or Local permits and approvals necessary for the land clearing operation.

Clearing shall be done when the soil moisture content is such that soil structural damage or compaction is minimized.

Since impacts from this practice can be significant, an environmental evaluation will be

completed early in the planning process. A 50-foot wide undisturbed area will be left between the area being cleared and all wetlands, water bodies and perennial streams. Special emphasis will be placed on potential impacts to threatened and endangered species. Follow guidance in Section I (T & E Species) of the Virginia Field Office Technical Guide.

Temporary cover will be established as necessary to control sheet and rill and/or wind erosion on the cleared area until the planned land use is in place. The plan will not be considered complete until the converted landuse is established.

The cleared area shall be left in a neat and slightly condition that will facilitate the planned use and treatment of the land.

Limit pushing the clearing debris into standing or green timber due to increased maintenance issues for re-clearing and the potential of creating a fire hazard. A pile should not be closer than 100 feet (ft) from adjacent woodland, buildings, or roads.

CONSIDERATIONS

Consider land clearing when the soil is frozen with minimal snow cover or during a dry summer period to minimize disturbance and movement of topsoil.

Ground disturbing activities associated with this practice have the potential to affect significant cultural resources. Consider using methods that cause the least disturbance to the ground surface.

NRCS, VA
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Land clearing is usually more efficient if the tree is less than 4 inches (in) in diameter. For larger trees, the root wad or crown should be removed during drier soil conditions. Rough pushing under wet conditions can create deep rutting and can bury debris, complicating final cleanup.

If a salvage harvest is made before clearing, leaving taller stumps will facilitate final clearing and grubbing activities.

Special attention shall be given to maintaining, replacing, or improving habitat for fish and wildlife. Consideration of such things as strip clearing, windrowing debris, leaving hedgerows and buffers, maintaining den and food trees, and creating additional woody habitat can minimize impacts on wildlife.

The orientation and layout of berm piles should be considered. Consider chaining or pushing trees down parallel to each other, and to follow topographical contours. The pile should be high, narrow, and compact and free of topsoil and snow. Piles with excess debris do not cure properly. Berms are normally 15 to 25 ft wide by 10 to 15 ft high, and are spaced 150 to 200 ft apart. A break of 30 ft between berms is recommended for every 200 ft of berm length to act as a firebreak, allow natural drainage or runoff, and facilitate equipment.

Consider the effects on the water budget, especially on volumes and rates of runoff, evaporation, and transpiration.

The impact of soil settling at varying rates in runoff immediately after clearing should be assessed.

Land clearing can increase the volume and rate of runoff. This is more pronounced on steeper land.

Effects on erosion and the movement of sediment, pathogens, and soluble and sediment-attached substances carried by runoff should be considered.

Consider the steepness of slope when selecting the size and type of equipment needed to clear land.

Consider activities to minimize the spread or introduction of weeds into a newly cleared field.

Consider the disposal of vegetation with regards to carbon sequestration. Burying, composting, or mulching the debris would limit the release of carbon.

PLANS AND SPECIFICATIONS

The plan shall specify the kinds of timber to be salvaged, lengths of logs, and place of stacking. Method of disposal shall be specified for all material not salvaged.

The Forestry Management Plan should be included with the case file information, as appropriate.

The plan shall provide for the measures necessary to protect the cleared area from erosion and adjacent areas from sediment, nutrients, and pesticides.

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

DESIGN DATA

Engineering plans, specifications, and reports shall include but not be limited to the following:

1. Completed Environmental Evaluation (Form VA-EE-1) and subsequent requirements.
2. Plan view of site with existing and planned features, including dimensions, distances, etc.
3. Standard Cover Sheet (VA-SO-100A).
4. Materials and quantities needed.
5. Vegetation and/or ground cover requirements.
6. Identification of needed Erosion & Sediment Control measures
7. Virginia Conservation Practice Specifications (700 Series).
8. Operation and Maintenance Plan

CHECK DATA

1. As-built plans including dimensions, types and quantities of materials installed, and variations from design. Include justification for variations.
2. Adequacy of vegetation and/or ground cover.

3. Complete as-built section of Cover Sheet.

OPERATION AND MAINTENANCE

The following actions shall be carried out to ensure that this practice functions as intended throughout its expected life.

A maintenance program shall be established to maintain vegetative cover while controlling undesired and exotic vegetation.

Watercourses and water quality shall be protected during and after removal of trees and vegetation.

Avoid crossing with heavy equipment when wet.

The use of mechanical treatments, prescribed burning, pesticides or other chemicals shall not compromise the intended purpose.

Select equipment sizes and capacities that will handle the clearing tasks in a timely and economically feasible manner.

Remove excess non-vegetative debris present or as it surfaces during clearing.

REFERENCES

1. USDA-Natural Resources Conservation Service. Electronic Field Office Technical Guide (eFOTG), Section III, Resource Quality Criteria for RMS [Online]. Available at <http://www.nrcs.usda.gov/technical/eFOTG>
2. USDA-Natural Resources Conservation Service. General Manual-190, Part 410,

Compliance with NEPA. Section 410.22-Endangered and Threatened Species of Plants and Animals and State Species of Concern [online]. Available at <http://policy.nrcs.usda.gov>, under General Manual.

3. Best Management Practices for Water Quality. Virginia Department of Forestry. 2002 [online]. <http://www.dof.virginia.gov/wq/index-bmp-guide.shtml>.
4. USDA-Natural Resources Conservation Service. General Manual-190, Part 410, Compliance with NEPA. Section 410.22-Endangered and Threatened Species of Plants and Animals and State Species of Concern [online]. Available at <http://policy.nrcs.usda.gov>, under General Manual.
5. USDA-Natural Resources Conservation Service. Electronic Field Office Technical Guide (eFOTG), Section II, Threatened and Endangered Species [Online]. Available at <http://www.nrcs.usda.gov/technical/eFOTG>
6. USDA-Natural Resources Conservation Service. Virginia 700 Series Construction Specifications. [On-line]. Available at <http://www.nrcs.usda.gov/technical/eFOTG>.

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