NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

LAND CLEARING

(Ac.)

CODE 460

DEFINITION

Removing trees, stumps, and other vegetation to achieve a conservation objective.

PURPOSE

Allow needed land use adjustments and improvements in the interest of conservation.

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 conservation plan.

Federal, State, and Local Laws

Design and construction activities shall comply with all federal, state, and local laws, rules, and regulations governing activities in or along streams, pollution abatement, health, and safety. The owner or operator shall be 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 for burning may be required from the West Virginia Department of Natural Resources (Forestry Division) and/or local ordinances.

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.

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

A 50-foot wide undisturbed area will be left between the area being cleared and all wetlands, water bodies and perennial streams.

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 cleared area shall be left in a 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.

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 should be given to maintaining habitat for fish and wildlife. Strip clearing, windrowing debris, and maintaining den and food trees 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.

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

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

The impact of soil settling on the variation in rates of runoff immediately after clearing.

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

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 plan shall provide for the measures necessary to protect the cleared area from erosion.

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.

Additional requirements for support data can be located in 210-VI-EFH, WV-45, "Preparation of Engineering Plans Design and Construction Support Data for Conservation Practices".

Required permits shall be obtained prior to initiating any work.

Specifications for land clearing may be developed from NEH-20 specifications, the 700 series specifications, or the specification attached to this standard, as appropriate for the installation method.

OPERATION AND MAINTENANCE

The following actions shall be carried out to insure 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.

Provide periodic inspections.

Maintain area by mowing or alternative weed control.

Repair of eroding areas.

Repair settled areas where stump holes were filled, animal burrows are located or buried vegetative waste has deteriorated.

Maintain vegetation, where required, by fertilization, liming, or reseeding.