NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

FOREST TRAILS AND LANDINGS

(Acre)

CODE 655

DEFINITION

A route, travel-way or cleared area within a forest.

PURPOSE

- Provide access to forest stands for management.
- Provide access for removal and collection of forest products.
- Provide access to forested areas for recreation.
- Minimize onsite and off-site damage to resources during periods of access.

CONDITIONS WHERE PRACTICE APPLIES

On forested areas.

CRITERIA

General Criteria Applicable To All Purposes

NRCS personnel are encouraged to work closely with WV Division of Forestry personnel and the NRCS staff forester when utilizing this practice.

Trails and landings will be of a size, gradient, number and location to economically and efficiently accomplish the intended purpose and expected users and equipment. They shall be configured to minimize adverse onsite 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 advance regeneration, residual growing stock, wildlife habitat, fragmentation, or restrict wildlife movement.

Timing and use of equipment will be commensurate with site and soil conditions to maintain site productivity and minimize soil erosion, displacement and compaction.

Slash, debris and vegetative material left on the site after construction will not present an unacceptable fire or pest hazard or interfere with the intended purpose.

Trails and landings where appropriate shall be sufficiently revegetated to control erosion. *See Critical Area Planting - 342 and Mulching - 484.*

Noxious plants will not be used for revegetation.

*At a minimum, c*omply with *current* applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice. Water bars, *broad based* dips, and other drainage measures for trails

shall be of sufficient size, intervals and gradient for adequate drainage and erosion control. ***See Field Office Technical Guide Reference - Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations in West Virginia (WVDOF -TR-96-3).***

Use soils, topographic, aerial, conservation plan maps, and field reconnaissance to assist in preliminary layout. Southern exposures are generally best for trail and landing construction.

Minimum road surface widths of 16 feet should be used on all curves, and on areas of substantial cut and fill. Anticipated equipment use should be considered when determining road widths. An additional four feet of road width will be required when ditching and water disposal is necessary.

All cut and fill slopes with a vertical height greater than 3 feet shall have side slopes that are stable for the soil material involved. In most instances, the following is required: soil 1.5:1, shale 1:1, rock 1/2:1. In some instances rock, trees and large roots will prohibit sloping, but provide stability for the bank.

Haul roads, skid trails, and landings should not be located within filter strips except when roads enter and leave stream crossings.

CONSIDERATIONS

Assure safe ingress and egress to site.

Locate landings and trails to preserve aesthetic qualities.

Landings and trails may be closed for erosion control, safety and liability, and reduced maintenance costs.

Landings and trails may be used for wildlife food and cover plantings.

Landings and trails may be utilized as firebreaks.

Consider cultural resources and environmental concerns such as threatened and endangered species of plants and animals, natural areas and wetlands.

Consider activities upland of the site that may intensify runoff from an area.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation.

Specifications for revegetation of landings and trails should include species, timing and method of application. *See Critical Area Planting - 342 and Mulching - 484.*

The following will be identified in the conservation plan (as appropriate):

- *Purpose of the forest trail and landing*
- *Field location / Plan view*
- *Streamside Mangement Zone / Shade Strip location / Treatment*
- *Length and width of trails and landings*
- *Slope calculations*
- *Design calculations (Culverts, etc.)*
- *Seeding / Mulching specifications*
- *Operation and maintenance plan*

Provide the cooperator with the following:

- *Location of roads, trails, and landings*
- *Location number and size of culverts*
- *Location of water control measures*
- *Width of Streamside Management Zone / Shade Strip*
- *Seeding / mulching specifications*
- *Operation and maintenance plan*

OPERATION AND MAINTENANCE

Periodic inspections of landings and trails will be conducted and where necessary repairs will be made.

Landings and trails utilized as firebreaks will be properly maintained to accomplish this purpose.

Landings and trails may be closed for erosion control, safety and liability, and reduced maintenance costs.

Landings and trails no longer needed can be “put to bed” by removing high maintenance structures, such as culverts and bridges, and can be restored to a vegetative cover by planting and seeding.

Traffic control is recommended to prevent road damage especially between December and April.

Mowing helps to maintain grass cover and prevents vegetation from crowding roadways.

REFERENCES

Hartung, R.D., and Kress, J.M., Woodlands of the Northeast, Erosion and Sediment Control Guides, 1977, USDA Soil Conservation Service Northeast Technical Service Center and USDA Forest, Service State and Private Forestry, Broomall, PA.

Haussman, R.F., and Pruett, E.W., Permanent Logging Roads for Better Woodlot Management, 1973, USDA Forest Service, State and Private Forestry, Upper Darby, PA.

Kochenderfer, J. N., Erosion Control on Logging Roads in the Appalachians, 1970, USDA Forest Service Research Paper NE-158, Northeast Forest Experiment Station, Upper Darby, PA.

West Virginia Division of Forestry, Best Management Practices for Controlling Soil Erosion and Sedimentation from Logging Operations in West Virginia, WVDOF-Tr-96-3 (August 2002) - Field Office Technical Guide Reference.

West Virginia Division of Forestry, Water Resources Section of the Division of Natural Resources, West Virginia Silvicultural Water Quality Management Plan, DOF-TR-89-6.