



Natural Resources Conservation Service
CONSERVATION PRACTICE STANDARD
FOREST TRAILS AND LANDINGS
CODE 655

(ac)

DEFINITION

A temporary or infrequently used route, path, or cleared area.

PURPOSE

This practice is used to accomplish one or more of the following purposes--

- Controlling erosion and sediment deposition.
- Providing unimproved or seasonal routes for temporary or infrequent travel by people or equipment for forest management activities.

CONDITIONS WHERE PRACTICE APPLIES

Forest land that need temporary access to facilitate conservation activities.

CRITERIA

General Criteria Applicable to All Purposes

Design trails and landings to be the appropriate size, gradient, number, and location to accomplish the intended purpose. Avoid locating trails and landings on poorly suited soils of low-bearing strength or environmentally sensitive sites such as wetlands, riparian areas, and critical wildlife habitat. Locate and minimize the number and size of trails and landings to reduce adverse onsite and offsite impacts such as accelerated erosion, slope failure, water quality, and riparian area degradation, stream channel and streambank damage, hydrologic modification, reduced aesthetic values, damage to advance regeneration or residual growth stock, or fragmentation of wildlife habitat. Use topographic maps and aerial photos to locate trails on the contour and limit the need for excavation to the greatest extent possible and incorporate breaks in grade (rolling dips or rolled grades) for trails on slopes. Set back trails and landings from water bodies and water courses to the greatest extent possible. Minimize the size and number of stream crossings and use criteria in NRCS Conservation Practice Standards (CPSs) Aquatic Organism Passage (Code 396) and Stream Crossing (578).

Assure safe ingress and egress from trails and landings to junctions with existing roads. For road intersections, use criteria in NRCS CPS Access Road (Code 560). Control access to trails and landings as needed for erosion abatement, safety and liability, and reduced maintenance costs.

Minimize the need for new trails and landings and their associate impacts, by designating trails and landings intended or anticipated for forest management activities in subsequent years for reuse.

Ensure appropriate timing and use of equipment for site and soil conditions to maintain site productivity and minimize soil rutting, erosion, displacement, and compaction. Prevent the introduction and spread of non-native invasive species by implementing measures such as equipment cleaning. Implement

applicable State best management practices for log skidding that meet the specific site requirement(s) and accomplish the intended purpose.

Integrate drainage and erosion control measures with trails and landings and locate measures to minimize detrimental effects of concentrated flow, erosion and sedimentation rates both during and after trail/landing use. Restore and stabilize stream crossings after use, as needed. Refer to applicable drainage and erosion-sedimentation prediction technology and use criteria in NRCS CPSs Critical Area Planting (Code 342), Structure for Water Control (Code 587), Aquatic Organism Passage (Code 396), Stream Crossing (Code 578), and Mulching (Code 484), as well as State forestry best management practices, as applicable.

CONSIDERATIONS

Consider utilizing LiDAR or other technology to obtain the latest site information to aid in the planning and design process.

Consider impacts to wildlife from increased fragmentation of the forest stand. Creation of openings can benefit some wildlife species (e.g., early successional and edge species) yet be detrimental to others (e.g., forest interior species). Trails and landings, particularly after usage, may be utilized and managed for wildlife food and cover plantings. Favor native species for revegetating trails and landings. Refer to appropriate criteria in wildlife habitat practice standards, (e.g., NRCS CPSs Upland Wildlife Habitat Management (Code 645), and Early Successional Habitat Development/ Management (Code 647)), as needed.

Trails typically connect to an existing road. Trails and landings no longer needed may be decommissioned.

Properly located trails and landings of sufficient width and location may be utilized and managed as firebreaks. See criteria in NRCS CPS Firebreak (Code 394) for additional guidance.

PLANS AND SPECIFICATIONS

Prepare specifications for applying this practice for each site including length, width, slope, final surface condition, and erosion control measures. Record using approved:

- Specification sheets.
- Hydrologic and hydraulic calculations, if necessary.
- Plan map.
- Implementation requirements.
- Narrative statements in the conservation plan, or other acceptable documentation.

OPERATION AND MAINTENANCE

Prepare an operation and maintenance plan for this site. As a minimum, include the following activities:

- Regularly inspect trails and landings to identify and address adverse effects associated with drainage and erosion control management measures. Maintain and restore, as necessary.
- Stabilize trails and landings intended or anticipated for management activities in subsequent years by establishing vegetative cover, removing structures (e.g., culverts), and adding water diversion (e.g., waterbars) according to state best management practices.
- Properly maintain trails and landings utilized and managed as firebreaks to accomplish this purpose while maintaining acceptable mitigation of other concerns.

REFERENCES

U.S. Department of Agriculture, Forest Service. 2012. National Best Management Practices for Water Quality Management on National Forest System Lands. FS-990A. Washington, DC. 177 p.

USDA, Forest Service-Northern Research Station, Web-Based Forest Management Guides.
<https://www.nrs.fs.fed.us/fmg/nfmg/fm101/bmp/index.html>