

NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

FOREST TRAILS AND LANDINGS

(Acre)
Code 655



Photo courtesy of the Florida Fish and Wildlife Conservation Commission

DEFINITION

A temporary or infrequently used route, path or cleared area within a forest.

PURPOSE

- Provide routes for temporary or infrequent travel by people or equipment for management activities.
- Provide periodic access for removal and collection of forest products.

CONDITIONS WHERE PRACTICE APPLIES

Trails and landings including skid trails are applicable on forest land. They typically connect to an Access Road, Code 560.

CRITERIA

General Criteria Applicable To All Purposes

Trails and landings will be of a size, gradient, number and location to accomplish the intended purpose.

Avoid locating trails and landings on poorly suited soils of low-bearing strength and sites such as wetlands, riparian areas, critical wildlife habitat, or other environmentally sensitive areas.

Locate trails on the contour to the greatest extent possible and incorporate breaks in grade (rolling

dips or rolled grades) for trails on slopes. Skid logs uphill (with front ends off the ground) as practicable to minimize mechanical displacement of soil. Trails and landings will be set back from water bodies and water courses. Stream Crossings, if necessary, will be minimized in size and number. Use culverts, bridges (permanent or portable), or hard surface crossings at all crossings.

Assure safe ingress and egress from trails and landings to junctions with access roads. Refer to Florida NRCS conservation practice standard, Access Road, Code 560, for travel-ways including logging spur roads needing construction design and possibly surfacing to accommodate frequent, intensive, or repeated vehicular traffic.

Trails and landings shall be located and minimized in number and size to reduce adverse onsite and off-site impacts such as accelerated erosion, slope failure, water quality and riparian area degradation, stream channel and streambank damage, hydrologic modification, aesthetics, unacceptable damage to advance regeneration or residual growing stock, or fragmentation of wildlife habitat.

Designate trails and landings intended or anticipated for management activities in subsequent years for reuse to minimize the need for new trails and landings and associated site impacts.

Timing and use of equipment shall be appropriate for site and soil conditions to maintain site productivity and minimize soil rutting, erosion, displacement and compaction.

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

Direct water from ditch turnouts into vegetated dispersal areas and not directly into streams or other water bodies.

Drainage and erosion control measures shall be integrated with trails and landings and located to minimize detrimental effects of concentrated flow, erosion and sedimentation rates both during and after trail/landing use. After usage, stream crossings will be restored and stabilized. Refer to applicable drainage and erosion-sedimentation prediction technology and Florida NRCS conservation practice standards such as Critical Area Planting, Code 342, Structure for Water Control, Code 587, Stream Crossing, Code 578 and Mulching, Code 484, as well as Florida Forestry Service Best Management Practices.

Do not use State or Federal noxious/prohibited weeds or invasive plants on the current [Florida Exotic Pest Plant Council's Category I list](#) for re-vegetation. See Florida NRCS conservation practice standards Critical Area Planting, Code 342; Conservation Cover, Code 327; Upland Wildlife Habitat Management, Code 645 and Mulching, Code 484 where appropriate.

Comply with applicable federal, state and local laws and regulations. The U.S. Army Corps of Engineers regulations, 33 CFR 323.4(a)(6)(i-xv), and current FLORIDA FORESTRY SERVICE (FFS) *Silviculture Best Management Practices* (http://www.floridaforestry.com/publications/silvicultural_bmp_manual2011.pdf) are to be followed during the installation, operation and maintenance of this practice.

Impact to cultural resources, wetlands and Federal and State protected species need to be avoided or minimized to the extent practical during planning, design and implementation of this conservation practice in accordance with established National and Florida NRCS policy as stated in the General Manual (GM) Title 420-Part 401, Title 450-Part 401, and Title 190-Parts 410.22 and 410.26; National Planning Procedures Handbook (NPPH) FL Supplements to Parts 600.1 and 600.6; National Cultural Resources Procedures Handbook (NCRPH); and Subpart F of The National Environmental Compliance Handbook (NECH).

CONSIDERATIONS

Locate landings and trails to preserve aesthetic qualities. Use topography or vegetation as visual buffers. Favor native species for re-vegetating trails and landings.

Landings may be site prepared, reforested, planted or seeded to perennial vegetation.

Consider establishing vegetation which provides food and/or cover for wildlife.

Consider making trails wider and landings bigger than necessary and re-vegetating with plants beneficial to wildlife.

Plan to retain connections between forested wetlands, streams, ponds, hammocks and other forested areas to minimize habitat fragmentation and to provide for wildlife movement.

Consider using geotextile fibrous mats and fill on perennially wet spots underlain by non-hydric soil.

Conduct construction during dry periods and several months prior to heavy use.

Where slope is sufficient for erosion to take place, trails need to follow the topographic contour or, if trails for timber harvest must travel up or down the slope, trails need to climb the slope at a gradual angle and trails should not converge on or at the bottom of a slope.

Try to maintain hydrologic connectivity.

When establishing landing and trails adjacent to bodies of water, streamside management zones (SMZ) or riparian areas, plan buffer width within DOF BMPs and the appropriate Florida NRCS conservation practice standard recommendations. Refer to Florida NRCS conservation practice standards, Filter Strip, Code 383; Riparian Herbaceous Cover, Code 390 or Riparian Forest Buffer, Code 391.

Landings and trails may be utilized as firebreaks in accordance with Florida NRCS conservation practice standard, Firebreak, Code 394.

PLANS AND SPECIFICATIONS

Plans and specifications need to be in keeping with this standard and need to describe the details adequately so the practice can be applied to meet intended purpose.

Planned forest trails and landings need to:

- Be based on an assessment of watershed conditions that affect the physical, biological and chemical conditions of the forested area.
- Be based on an assessment of current habitat conditions. Evaluate vegetation, threatened and endangered species present and habitat limitations.
- Include species, site preparation, seeding or planting rates, timing and method of

establishment recommendations for re-vegetation.

- Include a site map or sketch of current and planned conditions.
- Include approved specification sheets, job sheets and narrative statements.

OPERATION AND MAINTENANCE

Conduct periodic inspections and maintenance of landings and trails.

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

Landings and trails may be closed by the landowner to address erosion, safety and liability concerns or to reduce maintenance costs. Refer to Florida NRCS conservation practice standard, Use Exclusion, Code 472.

Landings and trails no longer needed can be restored by removing high maintenance structures, such as culverts and bridges, and re-vegetated by planting or seeding.

REFERENCES

Florida NRCS Conservation Practice Standards

Access Road, Code 560
 Conservation Cover, Code 327
 Critical Area Planting, Code 342
 Filter Strip, Code 383
 Mulching, Code 484
 Riparian Forest Buffer, Code 391
 Riparian Herbaceous Cover, Code 390
 Stream Crossing, Code 578
 Structure for Water Control, Code 587
 Use Exclusion, Code 472

A. J. Long. 2000. Environmentally sound forest harvesting. IFAS, University of Florida, Cooperative Extension Service. Circular SS-FOR-6. 11p.

Florida Forestry Service (FFS). 2011. Silviculture Best Management Practices. 121pp.
http://www.floridaforestservation.com/publications/silvicultural_bmp_manual2011.pdf

Florida Exotic Pest Plant Council, Category I list,
<http://www.fleppc.org/list/list.htm>