Natural Resources Conservation Service
Conservation Practice Standard

FOREST TRAILS AND LANDINGS

Code 655
(Acres)

I. DEFINITION

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

II. 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.

III. CONDITIONS WHERE PRACTICE APPLIES

Trails and landings including skid trails are applicable on forestland. They typically connect to an Access Road (560).

IV. CRITERIA

A. General Criteria

Trails and landings will be of a size, gradient, number and location to economically and efficiently accomplish the intended purpose. They shall be configured to minimize adverse on-site and off-site impacts such as accelerated erosion, riparian zone degradation, wetlands, critical wildlife habitat, stream channel and stream bank damage, hydrology modification and aesthetics. Trails and landings will be installed with a minimum amount of damage to advanced regeneration, residual growing stock and wildlife habitat located on the contour when possible. Set back from water bodies.

1. Temporary Roads

   The minimum width of trails will be 10 feet. Trails will be located at intervals no closer than 300 feet. A minimum number of trails and landings will be installed to meet the intended purpose. Typically no closer than 1/4 mile of existing access or temporary road.

   Minimize temporary roads by maximizing skidding and forwarding distances.

   All surface water runoff from trails shall be diverted onto well-vegetated and stable areas before entering a riparian zone.

   Water bars, broad based dips, fords, diversions, culverts and other drainage measures for trails shall be of sufficient size, interval and gradient to provide adequate drainage and erosion control.

   The type of equipment used and timing of equipment use will take into account site and soil conditions in order to maintain site productivity and minimize soil erosion, displacement and compaction.

2. High Speed Skid Trail

   A temporary, non-structural pathway over forest soil created by dragging or skidding felled trees or logs from a stump to a log deck. Skidders, fellers and other harvesting equipment use skid trials. Development requires removal of stumps by a dozer and general shaping of roads. Average distance to temporary road/landing is approximately 1/4 miles. Trails should not exceed 15% of stand area.

3. Skid Trail

   A temporary, non-structural pathway over forest soil created by dragging or skidding felled trees or logs from a stump to a

log deck. Skidders, fellers and other harvesting equipment use skid trials. Development does not require excavation with equipment. The average distance skidder will travel from a temporary road is approximately 1320 feet.

4. Landings

   Landing size is dependent on logging equipment.

   Landings are typically no larger than 1/4 acre in size. Depending on volume of product extraction, typically one landing is used per 10 acres.

   Landings will be located on soils that can support heavy equipment, e.g. moderately well to well drained soils. Landings will be located on areas where water will not accumulate and where there is safe access including visibility when entering onto public roads.

   Landings will be located a safe distance from overhead and underground utilities according to utility company specifications, typically no larger than 1/3 of an acre.

5. All ruts and berms shall be smoothed to grade level as soon as practical after completion of the harvest operation.

6. Establishment of Vegetation

   Trails and landings where appropriate shall be re-vegetated through natural or artificial means to control erosion. Natural regeneration of native species shall be used in lieu of seeding and mulching to re- vegetate a site, unless it is determined that existing seed banks or the residual stand will not reestablish adequate plant density. For artificial re-vegetation, refer to Wisconsin NRCS Conservation Practice Standards (WI NRCS CPS) *Tree and Shrub Establishment (612); and Critical Area Planting (342)*. All non-native plants used for re- vegetation will be evaluated for potential to become invasive species.

7. Slash

   Eliminate long, narrow bands of slash, debris and vegetative material left on the site after construction by lopping and scattering, chipping, removal or piling slash for wildlife habitat.

8. Stream Crossings

   Stream crossing design and construction will conform to WI NRCS CPS *Stream Crossing (578)*.

9. Comply with applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice.

B. <u>Criteria Applicable to Temporary Trails and Landings</u>

Temporary trails and landings will be designed and constructed for short-term use for a specific project such as forest stand improvement activities. Temporary trails and landings will only be used when the ground is frozen or firm.

When the activity is complete, the trails and landings will be closed.

Temporary landings and trails will be re- vegetated according to the plan developed for the site.

All stream crossing and temporary water management structures will be removed and all disturbed areas will be re-vegetated according to the plan developed for the site.

V. CONSIDERATIONS

Additional recommendations relating to design that may enhance the use of, or avoid problems with, this practice but are not required to ensure its basic conservation functions are as follows:

1. Consider impact to wildlife because of fragmentation of forest. Openings can benefit early successional and edge species, while detrimental to forest interior species.

2. Assure safe ingress and egress to site.
3. Locate landings and trails to preserve aesthetic qualities.
4. Access to landings and trails may be limited outside of logging periods to minimize erosion, safety and liability risks, and maintenance costs.
5. Landings and trails may be used for wildlife food and cover plantings.
6. Landings and trails may be utilized as firebreaks.
7. Consider cultural resources and environmental concerns such as threatened and endangered species of plants and animals, natural areas and wetlands. Take measures to protect against invasive species.
8. For permanent access to Forest Land, refer to WI NRCS CPS *Access Road (560)*.
9. Location and layout for trails and landings should conform to "Wisconsin's Forestry Best Management Practices for Water Quality" Field Manual, publication no. PUB-FR-093, by Bureau of Forestry, Wisconsin Department of Natural Resources.

VI. 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 re- vegetation of landings and trails should include species, timing and method of application. The type location and construction plans for erosion control and water management structures shall be provided as needed.

Because Forest Trails and Landings are often designed in conjunction with a timber harvest or other management activity, it may not be feasible to fully design and layout the practice in advance. Therefore, two levels of planning documentation are required as detailed below:

- Minimum documentation to include this practice in a conservation plan (including a Conservation Activity Plan) includes:
  - Approximate length, width and slope of new trails or trail segments and landings and/or those needing treatment.
  - Information about the timing of practice installation.
  - General description of the installation or treatments anticipated.
  - Location of buffer zones for streams, special areas and other sensitive areas that need protection, including wetlands and locations of threatened and endangered species.
- Minimum documentation required prior to installation of this practice includes all items listed above and:
  - Site map, preferably with topographic information, showing location(s) of trails, landings, and stream crossings.
  - Length, width, and slope of trails or trail segments and landings.
  - Location and/or spacing (on site map or described in plan) of structural erosion control measures, and other required treatments.
  - Detailed design information, including standard drawings, for all erosion control measures, stream crossings, cuts and fills, and other earthwork, structures, etc.
  - Identification of trails and landings intended or anticipated for management activities in subsequent years.
  - Specifications for operation during wet or dry weather periods to avoid soil erosion, compaction, and potential fires.
  - Location or description of sites needing seeding.
  - Species, rates, and planting information for any areas that require seeding.
  - Operation and maintenance requirements

VII. OPERATION AND MAINTENANCE

An operation and maintenance plan shall be developed that is consistent with the purpose of this practice, intended life of the components, and criteria for design. The plan shall include but is not limited to:

Periodic inspections of landings, trails, and water management structures will be conducted and where necessary, repairs will be made.

Landings and trails utilized as firebreaks will be properly maintained to accomplish this purpose. See WI NRCS CPS *Firebreak (394)*.

Landings and trails may be closed for erosion control, safety, liability, and reduced maintenance costs, refer to WI NRCS CPS *Critical Area Planting (342)* for additional information.

VIII. FEDERAL, STATE, AND LOCAL LAWS

Users of this standard should be aware of potentially applicable federal, state, and local laws, rules, regulations, or permit requirements governing Forest Trails and Landings. This standard does not contain the text of federal, state, or local laws.

IX. REFERENCES

USDA, NRCS Wisconsin Field Office Technical Guide (FOTG), Section IV, Practice Standards and Specifications.

Wisconsin Department of Natural Resources, Bureau of Forestry, Publication No. PUB-FR-093, Forestry Best Management Practices for Water Quality Field Manual, Chapter 6.