NATURAL RESOURCES CONSERVATION SERVICE
MONTANA CONSERVATION PRACTICE SPECIFICATION

FOREST SLASH TREATMENT (ACRE)

CODE 384

DEFINITION: Treating woody plant residues created during forestry, agroforestry and horticultural activities to achieve management objectives.

PURPOSES:

- Reduce hazardous fuels
- Reduce the risk of harmful insects and disease
- Protect/maintain air quality by reducing the risk of wildfire
- Improve access to forage for grazing and browsing animals
- Enhance aesthetics
- Reduce the risk of harm to humans and livestock
- Improve the soil organic matter
- Improve the site for natural or artificial regeneration.

SCOPE: This practice applies on areas with quantities of woody slash and debris requiring treatment.

FOREST SLASH TREATMENT SPECIFICATIONS: Specifications for applying this practice shall be prepared for each site and recorded using approved specifications sheets, job sheets, and narrative statements in the conservation plan, or other acceptable documentation.

Slash

Slash is the woody plant residue created during forestry, agroforestry and horticultural activities. It consists of:

- Small diameter trees resulting from pre-commercial thinning.
- Limbs from pruning activities.
- Logging debris after harvest: tree tops, limbs, cull logs.
- Material greater than 1 inch diameter and 3 feet in length.

Methods

The method of slash treatment will be based on; 1) purpose(s), and, 2) the condition and extent of residual slash. The method of slash treatment will achieve the landowner objectives while protecting land and water resources.

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Slash treatment methods include:

- Lopping and scatter
- Piling and burning
- Chipping
- Crushing
- Shredding
- Removal.

Definitions

Lopping and Scattering: This method is suited to areas with lower slash accumulations. Lopping is the cutting of limbs, branches, treetops, small diameter trees, or other woody plant residue into lengths so that the remaining slash will lie close to the ground. Scattering is the spreading of lopped slash evenly over the ground so that the remaining slash will lie close to the ground.

Piling and Burning: This method is suited to areas with adequate spacing between residual trees or areas with openings with few or no residue trees. Piling is placing, laying, heaping or stacking of slash into piles to facilitate intended burning. Burning is igniting piled slash under prescribed conditions to reduce the amount and continuity of fuels. Small piles that will be burned later may be covered with water-resistant paper or plastic to allow material beneath to dry.

Chipping: This method involves the mechanical conversion of slash to wood chips and chunks of varying size. The chipped material is distributed onsite or utilized offsite as landscape mulch, woody biomass fuel or pulp for paper products.

Crushing: This method involves the use of heavy ground-based equipment that crushes slash to a height not exceeding 18 inches above ground into the site. This occurs when harvest or thinning equipment drives over slash created during the operation.

Shredding: This method involves the process of tearing off narrow strips or small fragments of woody biomass through a mechanical device that leaves the biomass onsite but reduces the slash height so that it lies closer to the ground.

Removal: This method is suited to areas with higher slash accumulations where other methods may not sufficiently reduce the amount of undesired materials. It involves lifting, pushing or taking away slash from a treated area in order to utilize the material, or dispose of it safely.

When determining method and timing of slash treatment, consider air quality regulations, burning requirements, available resources, and ability to use the woody biomass and regeneration needs.

State Law

Slash and logging debris left on the site during and/or after timber harvest or certain timber stand improvement activities will need to follow **Montana's Fire Hazard Reduction (Slash) Law**. Abandonment of un-treated slash and logging debris is a public fire hazard and a violation of State Law.

Minimum Treatment

Slash that is lopped and scattered, shredded, or crushed **will not exceed 18 inches in height** on any part of the treatment area.

Slash that is lopped and scattered, shredded, or crushed and greater than 3 inches diameter will be cut into 3- to 5-foot lengths to facilitate rapid drying and reduce the threat of bark beetles.

To prevent spread of fire slash shall be greater than 100 feet from public roads and railroads. Slash will be greater than 200 feet from areas of frequent concentrated public use (camp grounds, picnic areas).

Timing

Treatment shall coincide with the intended purposes and minimize impact on other resources.

Reduce the risk of damage by harmful insects (bark beetle damage). Thin ponderosa pine and lodgepole pine stands between October 1 and April 1 to avoid bark beetle damage unless slash is to be removed from the site, chipped, or burned before spring.

Pile and burn the piles when the piles are dry [usually 6 months after being cut] and at a time when it can be conducted in a safe manner. Follow Montana's open burning rules and laws. The landowner is responsible for obtaining any required permits. Any burning activities shall comply with the Field Office Technical Guide (FOTG), Section IV, practice standard, Prescribed Burning (Code 338).

Slash Pile Placement and Size

Slash piles to be burnt should be placed in natural openings and/or away from trees to avoid damaging or scorching them when piles are burnt. Piles must be free of excessive dirt and debris to facilitate complete consumption of the debris. Piles shall be less than 10 feet high and less than 20 feet wide.

When feasible, chip or shred slash, in lieu of burning. Slash can be used for woody biomass fuel (hog fuel), firewood, pulp, post/poles or other products.

Slash Concentrations

Treat slash so concentrations do not exceed 9 tons/acre. Use Montana Forestry Technical Note Number 34, 'Photo Guide for Estimating Downed Woody Material' to estimate slash concentrations. Optimum amount of slash left on the site is between 2 and 9 tons/acre.

Improving Soil Organic Matter

Slash will be a size and closeness to the soil to accelerate decomposition. Run the material through a chipper to be used as mulch. Spread the material out to a fine layer in close contact with the soil. Chipped material shall not exceed 3 inches in depth.

To maintain site productivity leave a minimum of 2 tons/acre on the site. Slash and debris left on the site after treatment shall not present an unacceptable fire, safety, environmental or pest hazard. Such remaining material shall not interfere with the intended purpose or other management activities.

Aesthetics and Wildlife

Consider wildlife needs when performing treatments. Occasionally leave a few small scattered piles for rabbit cover.

Favor leaving downed logs that are at least 10 feet long, partially embedded into the surface soil, and weathered for wildlife benefits.

Slash that is scattered or piled and left on-site shall be treated to meet client objectives and any local requirements for aesthetics and visual resources.

Improve Access to Forage for Grazing and Browsing Animals

Slash will be treated so concentrations do not exceed 3 tons/acre and distributed to facilitate access by grazing and browsing animals.

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Monitoring

Monitor the potential damage to site resources by harmful pests and take necessary controlling actions. Comply with FOTG, Section IV, Conservation Practice, Pest Management (Code 595).