

NATURAL RESOURCES CONSERVATION SERVICE
MONTANA CONSERVATION PRACTICE STANDARD

WOODY RESIDUE TREATMENT (ACRE)

CODE 384

DEFINITION

The treatment of residual woody material that is created due to management activities or natural disturbances.

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 livestock and wildlife
- Develop renewable energy systems
- Enhance aesthetics
- Reduce the risk of harm to humans and livestock
- Improve the soil organic matter
- Improve the site for natural or artificial regeneration.

CONDITIONS WHERE PRACTICE APPLIES

On all lands, except active cropland, where woody residue requires treatment.

CRITERIA

General Criteria Applicable to All Purposes

The condition and extent of residual woody material shall determine the treatment method selected based on the operator's purpose.

Treatment methods (i.e., piling, burning, chipping/masticating, lop and scatter, off-site removal, crushing) will achieve landowner

objectives while adequately protecting land and water resources.

Care shall be taken to minimize injury to or function of the residual plant communities.

Timing of treatment shall coincide with intended purpose(s) and minimize impact on other resources.

Any broadcast burning activities shall comply with the **Field Office Technical Guide (FOTG), Section IV, Prescribed Burning practice (Code 338)**.

Any residual woody material left on the site after treatment will not present an unacceptable fire, safety, environmental or pest hazard. Such remaining material will not interfere with the intended purpose or other planned management activities.

Slash of varying sizes will be scattered across the site in a manner that achieves landowner objectives while also retaining coarse and fine woody debris sufficient for wildlife and pollinator habitat, soil nutrients and erosion control.

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.

Additional Criteria Applicable to Reduce Hazardous Fuels

Reduce the amount of fuels to an acceptable level by controlling height, size, amount and distribution.

Use chipping, removal or pile and burning methods to reduce the amount of hazardous fuels.

NRCS, MT
June 2011

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard contact the Natural Resources Conservation Service.

NOTE: This type of font (**AaBbCcDdEe 123..**) indicates NRCS National Standards.
This type of font (**AaBbCcDdEe 123..**) indicates Montana Supplement.

Additional Criteria to Reduce the Risk of Harmful Insects and Disease

The degree, intensity and timing of treatment shall consider the characteristics of harmful insects or diseases to enhance the effectiveness of control.

Slash will be treated in a timely manner so that it does not create a harmful insect situation.

Comply with FOTG, Section IV, Conservation Practice, Integrated Pest Management (Code 595).

Additional Criteria to Protect/Maintain Air Quality by Reducing the Risk of Wildfire

Activities will be consistent with established regulations and guidelines for PM 10 and PM 2.5 emissions, ozone precursors (NOx and VOCs), as well as smoke and fugitive dust, and state and local permit requirements.

When feasible, use chipping, bio-fuel harvesting, or lop and scatter techniques in lieu of burning.

Additional Criteria to Improve Access to Forage for Livestock and Wildlife

Woody material shall be piled, contour windrowed, **lopped and scattered**, or removed sufficiently to allow access by livestock and wildlife and to maximize forage growth.

Develop a prescribed grazing plan following woody residue treatment. Comply with FOTG, Section IV, Conservation Practice, Prescribed Grazing (Code 528).

Additional Criteria for Develop Renewable Energy Systems

Removal of woody material shall not be detrimental to the site and will adequately protect soil and water resources. Adequate woody material will be left to maintain or improve nutrient and organic matter cycling.

Additional Criteria to Enhance Aesthetics

Woody material left on the site that is scattered, windrowed or piled will be further treated to meet client objectives and any state or local requirements for aesthetics and visual resources.

Additional Criteria to Reduce the Risk of Harm to Humans and Livestock

Woody material left on the site that is scattered, piled or windrowed will be further treated to meet client objectives and any state or local requirements for safe use of the area.

Additional Criteria to Improve Soil Organic Matter

Woody material will be of a size and closeness to soil to accelerate in decomposition.

Leave enough woody material on the site to provide soil organic matter and protect the productivity of the site.

Additional Criteria to Improve the Site for Natural or Artificial Regeneration

Woody material will be treated to complement treatments specified in **FOTG, Section IV, Conservation Practice, Tree/Shrub Site Preparation (Code 490)**.

CONSIDERATIONS

When feasible, consider chipping, shredding, off-site disposal, bio-fuel composting, or other techniques in lieu of burning.

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

Consider effects on soil carbon when off-site removal of woody material is to occur.

Consider wildlife habitat needs (e.g. large downed wood, snags, brush piles, etc.) when planning the timing of and performing treatment.

Consider establishing artificial habitat (e.g. bat boxes, nesting platforms, rock piles, etc.) where needed.

Consider pollinator needs when planning and performing treatment.

Consider soils, site factors and timing of application. Avoid soil compaction, rutting, or damage to the soil surface layer.

Consider the beneficial and other effects on cultural resources, and threatened and endangered species, natural areas, and wetlands.

Bennett, M. and Fitzgerald, S., 2008. Reducing Hazardous Fuels on Woodland Property: Disposing of Woody Material. Oregon State Extension publication EC-1574-E.

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.

As a minimum, the woody residue slash treatment practice will have the following components in its plan and specifications:

- **A narrative that describes the producer's goals and objectives. Identify why the practice is needed and feasible.**
- **An environmental assessment of the planned practice that includes the potential impacts on soil, water, animals, plants, air and humans.**
- **An alternatives narrative that identifies and describes several methods that could be used to address the resource issue. Also identifying the producer selected method.**
- **The Montana Woody Residue Treatment practice job sheet and specification.**
- **Plan map and soil map of site with location of practice on the map.**
- **Operations and maintenance instructions.**

OPERATION AND MAINTENANCE

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

Access by vehicles or people will be controlled during treatment for safety. See **Field Office Technical Guide (FOTG), Section IV, Conservation Practice, Access Control (Code 472).**

Monitor vegetation growth. Unwanted vegetation or excessive re-growth may occur, requiring treatment.

REFERENCES

Ecological Restoration Institute 2010. Treating Slash. Northern Arizona University. Flagstaff, Arizona. <http://www.eri.nau.edu/en/information-for-practitioners/treating-slash>