



**Natural Resources Conservation Service**  
**CONSERVATION PRACTICE STANDARD**  
**WOODY RESIDUE TREATMENT**

**CODE 384**

**(ac)**

**DEFINITION**

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

**PURPOSE**

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

- Reduce hazardous fuels to limit wildfire potential and protect air quality.
- Reduce the risk of harmful insects and disease.
- Reduce the risk of harm to humans, livestock, and property.
- Improve the site for management activities and regeneration of plant communities.
- Improve access to forage for livestock and wildlife.
- Maintain or increase soil health and organic matter content.

**CONDITIONS WHERE PRACTICE APPLIES**

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

**CRITERIA**

**General Criteria Applicable to All Purposes**

Determine treatment methods (i.e., chipping, masticating, crushing, compacting, lop and scatter, piling, burning, and offsite removal) to meet client objectives and protect natural resources. Determine the treatment method based upon the condition, volume, and extent of residual woody material to meet the desired purpose. Woody material will be treated to complement other management activities or address damage caused by natural disturbances.

Timing of treatment must coincide with intended purpose(s) to minimize impacts to other resources. Minimize injury to, or function of, the residual plant communities. Assure remaining material will not interfere with other planned management activities or create an environmental hazard. During treatment, adequate woody residue will be left to maintain and improve nutrient and organic matter cycling, protect soil surface, and minimize soil compaction. Refer to Conservation Practice Standard (CPS) Soil Carbon Amendment (Code 336) when utilizing woody residue treatment product as a soil carbon amendment.

Burning activities must comply with the Prescribed Burning Policy in the General Manual. Refer to CPS Prescribed Burning (Code 338) for more details. Activities will meet established regulations and guidelines for smoke, fugitive dust, ozone precursors (nitrogen oxides (NOx), volatile organic compounds (VOCs), and state and local permit requirements.

NRCS reviews and periodically updates conservation practice standards. To obtain the current version of this standard, contact your Natural Resources Conservation Service State office or visit the Field Office Technical Guide online by going to the NRCS website at <https://www.nrcs.usda.gov/> and type FOTG in the search field.

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**Additional Criteria Applicable to Reduce Hazardous Fuels to Limit Wildfire Potential and Protect Air Quality**

Reduce the height, size, amount, and distribution of hazardous woody fuels on the site.

**Additional Criteria to Reduce the Risk of Harmful Insects and Disease**

The degree, intensity, and timing of treatment must consider the characteristics of harmful insects or diseases.

**Additional Criteria to Reduce the Risk of Harm to Humans, Livestock and Property**

Treat woody material on the site to meet client objectives and any state or local requirements for safe use of the area.

**Additional Criteria to Improve the Site for Management Activities and Regeneration of Plant Communities**

Treat woody material to allow access, encourage native or naturalized plant communities, and inhibit the spread of invasive plant species.

**Additional Criteria to Improve Access to Forage for Livestock and Wildlife**

Treat woody material to allow access by livestock and wildlife, and to promote forage growth.

**Additional Criteria to Maintain or Increase Soil Health and Organic Matter Content**

Accelerate decomposition by reducing woody material's size and closeness to soil to accelerate decomposition. Where pile burning is the method of treatment, rehabilitate burn scars using soil amendments, mulching, scarification, or seeding.

**CONSIDERATIONS**

Consider site aesthetics when planning woody residue treatments. Consider wildlife habitat needs (e.g., large downed wood, snags, brush piles, etc.) when planning the method and timing of treatment. When seeding, consider mixtures that provide benefits to wildlife and pollinators in the area.

Consider renewable energy and biochar production alternatives for woody material utilization to reduce greenhouse gas emissions and improve carbon storage and sequestration.

Consider other treatment methods in lieu of burning, when feasible. When pile burning is the chosen method of woody material treatment, consider using air curtain burners or kilns in lieu of open pile burning.

**PLANS AND SPECIFICATIONS**

Prepare specifications for applying this practice for each site using approved specification sheets, implementation requirements, technical notes and narrative statements in the forest management plan, conservation plan, or other acceptable documentation. At a minimum provide—

- Map showing the treatment location including size and relevant topographic features, such as slope, aspect, and landform.
- Objectives for woody residue treatment.
- Treatment method.
- Burn plan, as applicable.
- Timing relative to considerations for site condition, disease, insects, or wildlife impacts.
- Description of woody residue kept on site to maintain nutrient cycling, protect soil surface, and minimize soil compaction.
- Mitigation measures, if needed, to reduce wildfire hazards or the potential for disease and insects.

## OPERATION AND MAINTENANCE

Access by animals, people and vehicles will be controlled during treatment for safety.

Monitor site during treatment for damage to residual plant community or soils. Monitor populations and the potential of damage to site resources by harmful pests and take controlling actions as necessary. Monitor vegetation growth. Unwanted vegetation or excessive regrowth may occur, requiring treatment.

## REFERENCES

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