

**NATURAL RESOURCES CONSERVATION SERVICE
MICHIGAN CONSERVATION PRACTICE STANDARD**

WOODY RESIDUE TREATMENT

(Ac.)

CODE 384

DEFINITION

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

PURPOSE

- Reduce hazardous fuels
- Reduce the risk of harmful insects and disease
- Protect/maintain air quality by reducing the risk of wildfire
- To improve access for management purposes
- 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, shall 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 burning activities shall comply with the Prescribed Burning (338) Conservation Practice Standard.

Any residual woody material 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 planned management activities.

Take measures to mitigate invasion and spread of invasive species. Comply with federal and state NRCS policy on invasive species (see Invasive Plant Species List in Section II of eFOTG).

Comply with Michigan's Best Management Practices (BMPs) for forestland contained in "Sustainable Soil and Water Quality Practices on Forest Land," published by the Michigan Department of Natural Resources, 2009.

Additional Criteria Applicable to Reduce Hazardous Fuels

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

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.

Additional Criteria to Protect/Maintain Air

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact your Natural Resources Conservation Service [State Office](#) or visit the [Field Office Technical Guide](#).

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Quality by Reducing the Risk of Wildfire

Activities shall be consistent with established regulations and guidelines for PM10 and PM2.5 emissions, ozone precursors (NOx and VOCs), as well as smoke and fugitive dust, and state and local permit requirements.

Additional Criteria to Improve Access to Forage for Livestock and Wildlife

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

Additional Criteria to 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 shall be left to maintain or improve nutrient and organic matter cycling. Refer to Michigan Woody Biomass Harvesting Guidance for more information.

Additional Criteria to Enhance Aesthetics

Woody material left on the site that is scattered, windrowed or piled shall 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 shall 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 shall be of a size and closeness to soil to accelerate in decomposition.

Additional Criteria to Improve the Site for Natural or Artificial Regeneration

Woody material shall be treated to complement treatments specified in the Tree/Shrub Site Preparation (490) Conservation Practice Standard.

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

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using Michigan NRCS Woody Residue Treatment (384) Job Sheet or narrative statements in the conservation plan or forest management plan.

Specifications shall include, but are not limited to:

- Purpose(s) of treatment
- Map indicating location of treatment
- Detailed guidance regarding extent and timing, selected treatment(s) and specific results expected
- Identify specific criteria for the selected treatment (residual height, % residual contact with soil surface, depth of chipped material, location & dimensions for slash piles, etc.)
- Identify targeted pest, disease or wildfire hazard as applicable
- Operation and Maintenance requirements

OPERATION AND MAINTENANCE

Monitor populations and the potential of damage to site resources by harmful pests and take controlling actions as necessary.

Access by vehicles or people shall be controlled during treatment for safety. See the Access Control (472) Conservation Practice Standard.

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

REFERENCES

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

Ecological Restoration Institute. 2010. Treating Slash. Northern Arizona University. Flagstaff,

Arizona. <http://www.eri.nau.edu/en/information-for-practitioners/treating-slash>.

Michigan Department of Natural Resource and Michigan Department of Environmental Quality. 2009. Sustainable Soil and Water Quality Practices on Forest Land. Lansing, MI. http://www.michigan.gov/documents/dnr/IC4011_SustainableSoilAndWaterQualityPracticesOnForestLand_268417_7.pdf.

Michigan Department of Natural Resources. 2010. Michigan Woody Biomass Harvesting Guidance. http://www.michigan.gov/documents/dnr/WGBH_321271_7.pdf.