

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE GENERAL SPECIFICATION**

WOODY RESIDUE TREATMENT

(Ac.)

CODE 384

GENERAL SPECIFICATIONS

Procedures, technical details, and other information listed below provide additional guidance for carrying out selected components of the named practice. This material is referenced from the conservation practice standard for the named practice and supplements the requirements and considerations listed therein.

The mechanical components of this practice may adversely impact significant cultural resources and should be submitted to a cultural resource specialist for a determination of impacts before the practice commences.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on forested areas in a county declared a natural disaster by the Governor of Arkansas. Eligible forested areas will have large quantities of broken trees, uprooted trees, woody residue and debris from catastrophic storm damage requiring treatment to restore forest conditions.

Practice must be completely installed within 3 years of the storm event.

The tract must have enough damage to limit access through the stand and impede management activities, have the risk of catastrophic wildfire, have the risk of insect damage, limit access to forage for livestock or wildlife, create poor aesthetics, and/or limit the site for natural regeneration.

METHODS

The method of treatment will be based on; 1) desired purpose(s) and 2) the condition and extent

of residual woody residue. When determining method and timing of residue treatment, consider air quality regulations, burning requirements, available resources, and ability to use the woody biomass and regeneration needs. The woody residue treatment must adequately protect air, land and water resources. This treatment must comply with the Arkansas BMP recommendations for water quality and Arkansas Smoke Management Guidelines for PM 10 and PM 2.5. See the following link for more information on BMPs.

http://www.forestry.state.ar.us/bmp/bmp_review.html

Woody residue treatment methods:

Removal: Residue is removed from the site. This method is suited to areas with higher residue accumulations where other methods may not sufficiently reduce undesired materials in order to utilize the material, or dispose of it safely.

Lopping and scatter: Lopping is the cutting of limbs, branches, treetops, small diameter trees, or other woody plant residue into lengths so that no part of the remaining residue will be more than 2 feet above the ground. Scattering is the spreading of lopped residue evenly over the ground so that the remaining woody material will lie close to the ground. This method is suited to areas with lower residue accumulations and is effective for such accumulations in meeting height requirements, facilitating use of the treated area by humans and animals, improving aesthetics, and distributing material more uniformly and closer to the forest floor for faster decomposition. Safety equipment (e.g., goggles, gloves, chaps, ear plugs) must be worn when using chainsaws or other lopping equipment.

Piling and burning: Piling is placing, laying, heaping or stacking of woody residue into piles to facilitate intended burning. Burning is igniting piled

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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 [electronic Field Office Technical Guide](#).

residue under prescribed conditions to reduce the amount and continuity of fuels.

Burning must be consistent with the Prescribed Burn Practice 338. A written detailed prescribed burn plan **MUST** be developed **PRIOR** to the implementation of the burn according to standards specified in GM 190 – Part 413 Subpart B and the Arkansas amendment to national policy. A copy of the burn plan **MUST** be kept in the client's conservation plan folder along with the management prescription.

These methods are suited to areas with adequate spacing between residual trees or areas with few or no residual trees. Unburned piles or windrows can serve as nesting and escape cover for wildlife. When machine piling or windrowing, a "brush rake" (blade with tines) will minimize pushing surface soil. Synthetic materials (e.g., old tires, petroleum products) will not be incorporated in piles. Any burning will be conducted so as to minimize heat damage to residual trees. Windrows should align with the contour as much as possible.

Chipping: This method includes the mechanical conversion of woody residue to chips and chunks of varying sizes to distribute on site or utilized offsite as landscape mulch. For safety purposes, humans and animals must be excluded from areas being treated by equipment that flails and throws chips and chunks. Operate machinery to minimize bark damage to the residual trees. This chipped material can also be used as woody biomass fuel or pulp for paper products.

Crushing: This method involves the use of heavy ground-based equipment that crushes/grinds woody residue so that nothing is more than 2 feet from the ground. The closer crushed/grounded material is to the forest floor, the quicker decomposition occurs and the less chance of fire reaching into the above canopy layers.

CONSIDERATIONS

Treatments of woody residue should not cause further damage the desirable residual trees.

Position piles and windrows to prevent fire damage to crop trees and desirable vegetation and minimize erosion. Place piles in open areas as much as possible

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

Pile or remove woody residue sufficiently to allow access to forage. Trees of undesirable species or with low quality can be incorporated with the residue to allow the increased production of forage. Enough trees will be left to allow normal forest management activities. **The site cannot be converted to non-forest.**

Cut hazard trees (trees that are likely to fall or have large limbs that are likely to fall on structures or fences).

Woody residue that is lopped and scattered, shredded, or crushed will not exceed 24 inches in depth on any part of the treatment area (with exceptions for piling and windrowing of up to 10 feet heights and 20 feet widths).

Treat woody residue to prevent spread of fire within 100 feet of public roads and railroads and 200 feet of areas with frequent concentrated public use. Woody residue treatment will be coordinated with fire break needs as applicable.

Using logging equipment to treat the woody residue usually is more cost effective than other heavy ground-based equipment. Logging equipment usually creates less damage to residual trees. One scenario that works well is to pay logging crews to treat the woody residue to meet specifications while they are making a salvage harvest.

Use Tree & Shrub Site Preparation Practice 490 if the area is to be prepared for seedling planting.

Forested areas not in a county declared a natural disaster should use the Forest Stand Improvement Practice 666 to meet management goals.