

ILLINOIS JOB SHEET - 384 **JANUARY - 2012**

Landowner:	Farm #:	Tract #:
Field(s):	Acres:	
Soil Map Unit(s):	County:	
Designed By:	Approved By: Signature:	
Date:	Date:	

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

PURPOSE: (check all that apply)

- Reduce hazardous fuels
- Reduce the risk of harmful insects and disease
- Protect/maintain air quality by reducing the risk of wildfire
- To improve access 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



SPECIFICATIONS: (check all that apply)

- General specifications.** Apply to all practices for all purposes.
 - Maintain necessary filter strips and/or riparian forest buffer areas.
 - Remaining woody material left on site after treatment will not present an unacceptable fire, safety, environmental, or pest hazard.
 - Remaining woody material will not interfere with the intended purpose; other planned management activities, or hinder needed equipment operations.
 - Erosion and/or runoff will be controlled.
 - Soil compaction and soil displacement will be minimized.
 - Comply with applicable federal, state, and local laws and regulations.

Additional specifications by practice purpose are listed below. Follow all specifications for this practice that are checked.

Reduce hazardous fuels. Woody residue (slash) is treated so concentrations of 1" size material and larger (10.0-hour fuels) do not exceed 9 tons/acre (computations based on oven-dry weights and air-dry volume) and do not exceed 2 feet in height (with exceptions for piling and windrowing of up to 10 feet heights and 20 feet widths). Piles and windrows should be positioned to prevent fire damage to crop trees and desirable vegetation. 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. Refer to *Photo Guide for Estimating Fuel Loading and Fire Behavior in Mixed-Oak Forests of the Mid-Atlantic Region* <http://nrs.fs.fed.us/pubs/7319> for estimating slash accumulations.

Reduce the risk of harmful insects and disease. Based on the characteristics and life cycles of existing and anticipated pest species, treat and/or dispose of woody residue in a way to minimize harm and infestation to the residual trees and adjacent stands/areas.

Protect/maintain air quality by reducing the risk of wildfire. Woody residue is treated so concentrations of 1" size material and larger (10.0-hour fuels) do not exceed 9 tons/acre (computations based on oven-dry weights and air-dry volume) and do not exceed 2 feet in height (with exceptions for piling and windrowing of up to 10 feet heights and 20 feet widths). Position piles and windrows to prevent fire damage to crop trees and desirable vegetation. 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. Refer to *Photo Guide for Estimating Fuel Loading and Fire Behavior in Mixed-Oak Forests of the Mid-Atlantic Region* <http://nrs.fs.fed.us/pubs/7319> for estimating slash accumulations.

Improve access to forage for livestock and wildlife. Woody residue will be piled, contour windrowed, or removed sufficiently to allow access by livestock and wildlife and to maximize forage growth. Time intended treatment to reduce or eliminate woody residue before calving and/or nesting periods for wildlife and/or livestock.

Develop renewable energy systems. Removal of woody material will 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. Limit removal of 1" size and larger woody residue to no more than two thirds of existing or maintain to a maximum of 9 tons per acre.

Enhance aesthetics. Woody residue will be treated sufficiently to comply with client objectives for aesthetics. Consider wildlife needs when performing treatments.

Reduce the risk of harm to humans and livestock. Woody residue will be treated to facilitate safe access by humans. Stumps created by treating woody residue should be cut low enough to the ground to eliminate safety threats to those using the area. Mitigate leaning snags, pinned trees (spring poles) and other significant safety concerns as appropriate.

Improve the soil organic matter. Woody residue will be treated to minimize its size and maximize its contact with the forest floor to accelerate decomposition. Where chips are produced in sufficient quantities to uniformly cover the ground surface, depth shall not exceed 3 inches. To provide a source for organic matter cycling, residual woody residue left after treatment shall not fall below 2 tons/acre and be as evenly distributed as possible. Where feasible, let fine debris (needles, leaves, and twigs) weather and/or fall from woody residue before it is burned or removed from the site. Woody residue 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.

Improve the site for natural or artificial regeneration. Woody residue treatment and intensity will be coordinated to complement specifications under TREE/SHRUB SITE PREPARATION (Practice Code – 490) and TREE/SHRUB ESTABLISHMENT (Practice Code – 612).

METHODS: (check all that apply)

The method of woody residue treatment will be based on; 1) desired purpose(s) and 2) the condition and extent of residual woody material. When determining method and timing of woody residue treatment, consider air quality regulations, burning regulations, available resources, ability to use the woody biomass and future regeneration needs.

Woody residue treatment methods:

Removal: Woody residue is removed from the site. Removal method is suited to areas with higher woody 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 the remaining material will lie close to the ground. Scattering is the spreading of lopped woody residue evenly over the ground so that the remaining material will lie close to the ground. Lopping and scattering method is suited to areas with lower woody 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 and comply with the federal, state and/or local safety authority.

Piling and burning: Piling is placing, laying, heaping or stacking of woody residue, or slash, into piles to facilitate intended burning. Burning is igniting piled woody residue under prescribed conditions to reduce the amount and continuity of fuels. Piling and burning methods are suited to areas with adequate spacing between residual trees or areas with few or no residual trees. Piles that will be burned later may be “mounded” to shed water or, if small in size, temporarily covered with water-resistant paper or plastic to allow material beneath to dry. 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 into woody residue accumulations. Synthetic materials (e.g., old tires, petroleum products) will not be incorporated in piles. **Any burning will comply with PRESCRIBED BURNING (Practice Code – 338)** and be conducted to minimize heat damage to residual trees, their roots and underlying soil. All burning associated with woody residue removal must meet local and state burning regulations.



Chipping/Shredding: Chipping or shredding method includes the mechanical conversion of woody residue in 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. Chipped or shredded material can also be used as woody biomass fuel or pulp for paper products.



Crushing: Crushing method involves the use of heavy ground-based equipment that crushes/grinds woody residue to a depth not exceeding 2 feet. The closer crushed material is to the forest floor, the quicker decomposition occurs and the less chance of fire reaching upper more sensitive portions of residual trees.

MINIMUM TREATMENT:

Woody residue that is lopped and scattered, shredded, or crushed **will not exceed 2 feet in depth** on any part of the treatment area.

TIMING:

Treatment shall coincide with the intended purposes and minimize impact on other resources. Reduce the risk of damage by harmful insects.

Conduct burning of piles after sufficient curing and drying [usually six (6) months after being cut] and at a time when it can be conducted in a safe manner. Follow Illinois’ open burning rules and laws. The landowner is responsible for obtaining any required permits. **Any burning activities will comply with the PRESCRIBED BURNING (Practice Code – 338). Woody residue piles should be placed in natural openings and/or away from trees to avoid damaging or scorching them when piles are burnt or prescribed burning activities are expected.** Piles must be free of excessive dirt and debris to facilitate complete consumption of the debris. When feasible, use chipping, shredding, woody biomass fuel, salvage harvesting, pulp, or other techniques, in lieu of burning.

ADDITIONAL COMMENTS AND RECOMMENDATIONS:

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 will be controlled during woody residue treatment for safety.
- Monitor vegetation growth. Unwanted vegetation or excessive re-growth may occur, requiring treatment.
-

PLANNING MAP OF TREATMENT AREA

Scale 1" = _____ ft. (NA indicates sketch not to scale. Grid size = 1/2" by 1/2")



NRCS CHECK OUT	
Extent of Practice Units Applied:	Date Practice Applied:
Acres	
Document actual preparation measures used and applied:	
This practice meets or exceeds USDA/NRCS specifications: Print Name:	
Signature: _____ Date: _____	

USDA-NRCS is an Equal Opportunity Employer and Provider