



666 – Forest Stand Improvement
Job Sheet - Connecticut



Landowner: _____ Project or Contract: _____

Location: _____ NRCS Planner: _____

Stand Number and Acres: _____ Tract Number: _____

Pages in plan discussing treatment: _____ Plan Date: _____

Forest Management Plan By: _____

DEFINITION

Forest stand improvement is the manipulation of species composition, stand structure and stocking by cutting or killing selected trees and understory vegetation. This standard includes cuts intended to establish regeneration.

PURPOSE

- Increase the quantity and quality of forest products by manipulating stand density and structure.
- Improve forest health reducing the potential of damage from pests and moisture stress.
- Achieve or maintain a desired native understory plant community for special forest products, grazing, and browsing.
- Timely harvest of forest products.
- Development of renewable energy systems.
- Initiate forest stand regeneration.
- Reduce wildfire hazard.
- Restore natural plant communities.
- Improve aesthetic and recreation values.
- Improve wildlife habitat.
- Alter water yield.
- Increase carbon storage in selected trees.

GENERAL PRACTICE REQUIREMENTS

- This Job Sheet will be filled out prior to the start of a practice.
- When practices are considered to be “commercially viable” (result in net income to the landowner), instead of contracting payment for the practice, NRCS may contract payment for marking the trees by a forester to assure that the silvicultural objectives are met. Payment for marking will not be approved until the cutting practice has been completed.
- All work shall be in compliance with NRCS program policy and rules, and local and state laws, including but not limited to the Connecticut Forest Practices Act and state and local wetlands regulations.
- Removal of firewood and other residues is allowed at the landowner’s expense as long as wildlife habitat requirements are met and the remaining trees are not damaged.
- Trees to be cut or to remain, patch cut boundaries, etc. shall be designated (typically painted) by a CT certified Forester¹ and reviewed prior to the start of cutting with the person who will do the work.
- When the estimated volume to be removed is in excess of 50 cords, 150 tons or 25,000 board feet cutting shall be performed by a certified forest practitioner. ¹
- Practices shall be recommended in a Forest Management Plan (FMP) that is less than ten years old,

and was prepared by a CT certified Forester¹.

- When tree marking begins, the landowner will look at a marked area to verify that they are in agreement with the proposed cutting, as marked.
- NRCS staff shall inspect the site prior to the start of a practice to verify it is marked and that the landowner is in agreement with the practice. Record site visits on page 7 of this job sheet.
- Inspections during treatment activities will ensure that objectives are being achieved and resource damage is avoided. If work is not meeting expectations it will cease until the matter is resolved. A final inspection shall be done when the practice is complete (see page 7).
- Orchards, ornamental trees, Christmas trees, and similar sites are not eligible for program payments under the Forest Stand Improvement practice. Improvements to sugar maple stands used for, or planned for, sap production may be eligible.
- Thinning may be done by cutting, girdling, or chemically treating trees, as prescribed by the Forest Management Plan or NRCS planner.
- Practices are to be completed as scheduled in the NRCS contract regardless of markets.

¹Certified by the State of Connecticut pursuant to CGS Section 23-65h.

WILDLIFE HABITAT

Favor mast and cavity producing species such as white oak, black cherry, ash, maple, hickory, yellow birch and white pine during thinning operations. When possible promote species diversity by encouraging less common species that are suitable to the site. Retain existing and potential den, snag and nest trees during thinning operations.

The landowner/operator shall obtain approved starting dates from NRCS prior to starting all cutting practices to ensure that they will be in compliance with the Migratory Bird Treaty Act and cutting restrictions associated with the listing of the Northern Long-eared Bat as a threatened species and other species of concern. In CT, April 15 to August 31 is typically the most critical time for nesting.

STAND DENSITY MANAGEMENT

Unless pre-approved by NRCS the following shall apply.

- Practices such as understory release, cull tree removal and pre-commercial thinning shall remove at least 20 sq. ft. basal area per acre.
- Crop tree release shall release at least 40 trees per acre in young fully stocked stands or at least 10 trees per acre in older, degraded or understocked stands.
- Residual stocking levels shall be as planned and shall not be less than the following. These minimum basal areas do not apply to Clearcuts, Seed Tree, or Shelterwood cuts. Record residual stand density in the Certification and Checkout section of this job sheet. (For mixed stands of softwood and hardwood use an average based on percentage of basal area in each category.)

Hardwood Sawtimber: 55 sq. ft.

Hardwood Poletimber: 40 sq. ft.

Softwood Sawtimber: 120 sq. ft.

Softwood Poletimber: 80 sq. ft.

OPERATION AND MAINTENANCE (O&M)

- Forest Stand Improvement activities shall be maintained for the practice's lifespan of 10 years.
- Maintenance activities are not eligible for NRCS conservation program payments.
- Monitor treated acres for invasive species, insect and/or disease outbreaks and other concerns that may occur and take appropriate action.
- In stands that are thinned or released, the participant agrees to maintain the stand for the practice lifespan without commercial harvest of the trees that were released by this practice, or taking other actions that may render the practice ineffective.
- Follow additional O&M requirements as provided by the FMP, the Forester or NRCS.

JOB SHEET

NOTE: Prepare a separate job sheet for each stand that is receiving treatment. Fill in data below as appropriate for the site and job.

INVASIVE PLANTS – If planning to manage identified invasive plants, follow 314 Brush Management Standard and Job Sheet or 315 Herbaceous Weed Control Standard and Job Sheet

Are invasive plants present in the cutting area?	<input type="checkbox"/>	<input type="checkbox"/>	Include details here (species, extent, density, timing of treatment, etc.)
	Yes	No	
Invasive plants have been or will be treated prior to cutting?	<input type="checkbox"/>	<input type="checkbox"/>	
	Yes	No	
Invasive plants present but no treatment planned?	<input type="checkbox"/>	<input type="checkbox"/>	
	Yes	No	

STAND INFORMATION

Forest Cover Type or Dominant Species:			
Dominant Soil Types:		Site Index:	(S.I. Sp.:)
Tree and/or Shrub Species to Manage:			

PURPOSE (CHECK ALL THAT APPLY)

<input type="checkbox"/> Increase the quantity and quality of forest products by manipulating stand density and structure.	<input type="checkbox"/> Achieve or maintain a desired native understory plant community for special forest products, grazing, and browsing.
<input type="checkbox"/> Reduce wildfire hazard.	<input type="checkbox"/> Initiate forest stand regeneration.
<input type="checkbox"/> Renewable energy systems (i.e. biomass, biofuel, etc.)	<input type="checkbox"/> Improve forest health reducing the potential of damage from pests and moisture stress.
<input type="checkbox"/> Restore natural plant communities.	<input type="checkbox"/> Timely harvest of forest products.
<input type="checkbox"/> Improve aesthetic and recreation values.	<input type="checkbox"/> Improve wildlife habitat.
<input type="checkbox"/> Alter water yield.	<input type="checkbox"/> Increase carbon storage in selected trees.

HARVEST TYPE

<input type="checkbox"/> Pre-commercial Thinning/Weeding	<input type="checkbox"/> Final Harvest
<input type="checkbox"/> Intermediate Harvest	<input type="checkbox"/> Other (Describe):
<input type="checkbox"/> Regeneration Harvest	

SILVICULTURAL SYSTEM

<input type="checkbox"/> Single Tree Selection	<input type="checkbox"/> Shelterwood
<input type="checkbox"/> Group Selection	<input type="checkbox"/> Seed Tree
<input type="checkbox"/> Crop Tree Management	<input type="checkbox"/> Clearcut
<input type="checkbox"/> Coppice	<input type="checkbox"/> Other:
Additional Information (target species, how reserve trees will be marked, number of crop trees per acre, etc.):	

STAND DENSITY

	Before	Desired	Remove
Trees per acre			
Basal area per acre			
Average DBH			
Volume per acre			
Additional Information:			

CUTTING METHOD

<input type="checkbox"/> Chainsaw/Hand	<input type="checkbox"/> Heavy Equipment	<input type="checkbox"/> Other:
Additional Information:		

TRANSPORT/YARDING METHOD (note if a specific type of equipment is being required for the job)

<input type="checkbox"/> On Ground (Skidder)			
<input type="checkbox"/> Off Ground (Forwarder)			
<input type="checkbox"/> Other:			
Stream/Wet Area Crossings?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If Yes, See Forest Trails & Landings (655) Job Sheet and NRCS Temporary Crossings Guidelines
Skid Trail Layout Needed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
New Landings Needed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Additional Information:			

WETLANDS/WATERCOURSES

Are Wetlands/Watercourses on the practice site?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Describe:	
Jurisdictional Ruling obtained from town?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Approved	<input type="checkbox"/> Other:
Additional Information:				

RELEASE FROM COMPETING VEGETATION (i.e. invasive plant control)

Species To Remove/Control:				
Treatment	<input type="checkbox"/> Chemical	<input type="checkbox"/> Chainsaw/Hand	<input type="checkbox"/> Propane Torch	<input type="checkbox"/> Heavy Equipment
Chemical Name(s)				
Chemical Rate(s)				
Source of Chemical Recommendation(s)				
Application Method(s)				
For chemical control – CT Licensed Applicator (if required):				
Additional Information:				

For work planned under the NRCS Forest Trails and Landings (655) practice, such as grading and seeding of skid trails, or Access Road (560) see the job sheet specific to that practice.

EROSION/SEDIMENTATION

Practices shall be implemented in accordance to accepted Best Management Practices (BMPs) that will reduce the potential for erosion and sediment transport.

Refer to the CT DEEP’s Best Management Practices for Water Quality While Harvesting Forest Products (http://www.ct.gov/deep/cwp/view.asp?a=2697&q=379248&depNav_GID=1631)

and to the US. Forest Service’s A Landowner’s Guide to Building Forest Access Roads

(<http://www.na.fs.fed.us/SPFO/pubs/stewardship/accessroads/accessroads.htm>) for further criteria and specifications.

Additional Information:

Attached Practice Location Map

Required:

- Detailed aerial view of where practice is to be installed.
- All stands are labeled with stand number, acreage and any other identifying characteristics
- All major components, structures, fences, streams, landmarks, etc. are identified

Forester over-seeing job: _____ Cert. # _____

Harvester Name: _____ Cert. # _____

(Note: Certification numbers can be obtained from the DEEP website.)

Landowner has done an on-site inspection of the practice prior to the start of cutting and authorizes the practice to proceed as marked. Landowner understands practice requirements per Practice Standard and Job Sheet.

Landowner Signature: _____ Date: _____

RECORD OF COMPLETION AND CHECK OUT CERTIFICATION

Attachments:

- Map attached with actual treated area(s) and method of treatment(s) delineated and labeled.
- Photos of completed practice.

RECORD OF COMPLETION AND CHECK OUT CERTIFICATION:

<i>Inspected Prior to Start Inspector/Date</i>	<i>Inspected During Work Inspector/Date</i>	<i>Inspected During Work Inspector/Date</i>	<i>Inspected During Work Inspector/Date</i>
<i>Forester Name:</i>	<i>Practice completed according Plan</i>	<i>Final Inspection Date:</i>	<i>Forester signature:</i>
<i>Treated Acres:</i>	<i>Practice Completed per NRCS Standard - Date Completed:</i>	<i>Final Inspection Date:</i>	<i>NRCS Inspector:</i>
<i>Notes (erosion and sediment control measures, residual stand density, final appearance of site, etc.)</i>			

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mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights 1400 Independence Avenue, SW Washington, D.C. 20250-9410

fax: (202) 690-7442

email: program.intake@usda.gov