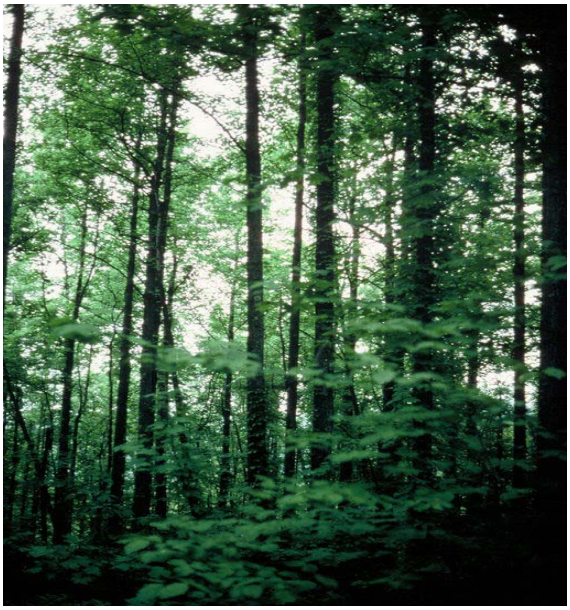
NRCS Natural Resources Conservation Service

Forest Stand Improvement

New Hampshire Conservation Practice Job Sheet 666



Definition

Forest Stand Improvement is the manipulation of species composition, stand structure, and stocking by cutting or killing selected trees and understory vegetation. Generally it may include weeding, releasing, and thinning of a young (between 5 and 25 years old) forest stand over time. Thinning can be either pre-commercial or commercial.

Purpose

The purpose of this practice is to increase the quantity and quality of forest products and reduce the potential of damage from wildfire, pests, and moisture stress. At the same time, forest stand improvement may also be used to initiate stand regeneration and restore natural plant communities, including a desired understory plant community. Other purposes include improving recreation, aesthetic and open space values, wildlife habitat, water conservation and yield, harvestable forest products, and renewable energy production as well. Crop tree and carbon storage management are also purposes of this practice.

Where used

This practice is used on forest land where improvement of forest resources is needed. For example a forest stand that has a severe pest problem or is overstocked may need forest stand improvement.

Considerations

Silvicultural objectives and harvest-regeneration strategies may change over time and may be limited by prior management. Successful regeneration of desirable species is usually dependent upon timely application of forest stand improvement.

Adjust the extent, timing, size of treatment area, or the intensity of the practice to minimize the cumulative effects (on-site and off-site), e.g., habitat fragmentation, nutrient cycling, biodiversity, and visual resources. This adjustment is especially true for endangered and threatened species. Time the practice so it minimally affects seasonal wildlife activities and retains essential wildlife habitat requirements such as large dead standing and downed trees. Also consider releasing apple trees for wildlife.

Comply with all applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice, including the Federal Endangered Species Act (ESA), NH Pesticide application regulations, and Best Management Practices for "*Erosion Control on Timber Harvesting Operations in New Hampshire".*

Please Note: A current Forest Management Plan, completed by a NH Registered Forester or NRCS Forestry/Agroforestry Technical Service Provider (TSP) is required for this practice. When implementing this practice use a NH Registered or NRCS Forestry/Agroforestry TSP for technical assistance.

Operation and maintenance

Periodic inspections during treatment activities are necessary to ensure that objectives are achieved and resource damage is minimized. Follow-up and ongoing management activities will be needed to obtain desired results.

Specifications

Site-specific requirements are listed on the specifications sheet. Inventory information is listed on the Inventory Worksheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See practice standard and supplemental specifications for Forest Stand Improvement, Code 666 for specific requirements.

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Forest Stand Improvement – Job Sheet

If needed, an aerial view of the practice location can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

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

Additional Specifications and Notes:

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Forest Stand Improvement – Job Sheet – Inventory Worksheet

For:	*Farm #:*
Field(s):	*Tract #:*
Designed By *Reg. #:* *Drawing No(s).:*	*Approved By:* *Signature:* *Reg. #:*
Date:	*Date:*

Existing Conditions: Summary Inventory Information This information may be obtained directly from the field or from a Forest Management Plan completed by a registered Forestry Technical Service Provider (TSP) or NH Licensed Forester.

Field/ Stand	Ac	Plant Species (common name)	Suit.[4]	Size Class[3]:	Ave. DBH[1]	Basal Area	Trees per acre	Avg. Spacing[2]: Ft X Ft
		Total						
		Average						

[1]DBH = Diameter at Breast Height. [2]Spacing in between plants to achieve trees/acre. Trees/acre = 43,560 (ft^2/ac) ÷ [Between-Row Spacing (ft) X In-Row Spacing (ft)}. [3]Size Class = sapling/seedling, pole, sawlog. [4] 1 = Preferred, 2 = Acceptable, 3 = Weed species.

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Forest Stand Improvement – Job Sheet – Specifications Sheet

For:	*Farm #:*
Field(s):	*Tract #:*
Designed By *Lic #::*	*Approved By:* *Signature:* *Lic. #:*
Date:	*Date:*

Purpose (check all that apply)	
☐ To increase the quantity and quality of forest products	☐ Harvest forest products
☐ Improve wildlife habitat	☐ Achieve a desired level of crop tree stocking and density
☐ Improve water conservation and yield	☐ Increase carbon storage in selected crop trees
☐ Improve aesthetic, recreation, and open space values	☐ Restore natural plant communities
☐ Initiate forest stand regeneration	☐ Achieve a desired understory plant community
☐ Reduce the potential of damage from wildfire, pests, and moisture stress.	☐ Renewable energy production

Project site general soil moisture regime is ___Dry ___Moist ___Wet or poorly-drained (see Pg 666-4)

Harvest Regeneration Strategy (check one Mgt System on first line and circle specific system on second line)	
☐ Uneven-aged Management System	☐ Even-aged Management System
☐ Single-tree selection, group selection, coppice	☐ Clear-cut, seed-tree, shelterwood, coppice

Type of Forest Stand Improvement (check one and write in type, i.e. hand, chemical, mechanical, other-specify)		
☐ Weeding (pg 666-3) Type:	☐ Releasing (pg 666-5) Type:	☐ Pre-commercial thinning (pg 666-5) Type:
☐ Commercial thinning (pg 666-5)		

Forest Stand Improvement will be done during the following time period (specify dates):_____to_____.
NOTE: This practice will comply with NH Intent to Cut Notification under the Heavy Cutting Legislation.

Notification No. _____ Completed by:_____

Desired Forest Condition - Refer to NH Supplemental Specifications of the NH Standard 666 for weeding specs. Identify preferred species by using an asterisk (*) by the name.

Field/ Stand	Ac	Plant Species (common name)	Size Class	D+X Spacing	Avg. Spacing Ft X Ft	Trees per Acre

Additional Remarks (Include information on salable or usable products, other values and considerations):

Installation shall be in accordance with the specified drawings, specifications, and special requirements. **No changes are to be made in the drawings or specifications without prior approval of Jim Spielman at 603-868-7581.** Questions regarding the forest stand improvement should be directed to the Local District Conservationist at the local NRCS Service Center.