

Prepared for: \_\_\_\_\_

Prepared by: \_\_\_\_\_

Farm: \_\_\_\_\_ Tract: \_\_\_\_\_ Date: \_\_\_\_\_



**DEFINITION**

Forest stand improvement involves cutting or killing selected trees and understory vegetation to manipulate tree stocking/spacing and/or control competition from overstory, midstory and understory species.

**PURPOSE**

Forest stand improvement can be accomplished by hand (using a number of different tools/implements) or by machine for a wide variety of management objectives including: increasing the quantity and quality of forest products, harvesting forest products, initiating stand regeneration, reducing wildfire risk, improving forest health, improving wildlife habitat, development of renewable energy and others.

**APPLICATION**

Forest stand improvement is often done along with other forestry and wildlife management practices as part of a resource management system for a conservation management unit.

Forest stand improvement plans for forestry, site restoration, wildlife management, and ecological purposes are usually prepared and supervised by foresters, biologists and other professionals registered/certified in North Carolina.

## Forest Stand Improvement Specifications

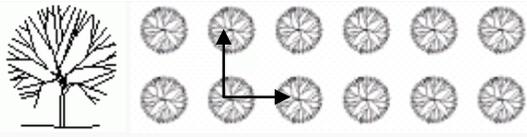
### Forest Management Plan/Tree Planting Plan by Registered Forester or Other Professional

Plan by: \_\_\_\_\_ Additional Information: \_\_\_\_\_

#### Purpose (check all that apply)

<input type="checkbox"/> Increase quantity and quality of forest products	<input type="checkbox"/> Restore natural plant communities
<input type="checkbox"/> Timely harvests of forest products	<input type="checkbox"/> Improve aesthetic or recreation values
<input type="checkbox"/> Develop renewable energy systems	<input type="checkbox"/> Improve wildlife habitat
<input type="checkbox"/> Initiate forest stand regeneration	<input type="checkbox"/> Alter water yield
<input type="checkbox"/> Reduce wildfire hazard	<input type="checkbox"/> Increase carbon storage in selected crop trees
<input type="checkbox"/> Improve forest health – reducing potential damage from pests & moisture stress	<input type="checkbox"/> Achieve/maintain a desired native understory plant community for special forest products, grazing and browsing

#### Tree Spacing/Stocking



Spacing /stocking manipulation includes all commercial and non commercial harvest and thinning operations. Measurements include: Trees or stems per acre (TPA) – generally used for younger planted stands; Basal Area (BA) and Diameter plus (D+)- generally used on stands > 4" DBH (BA measured with prism tool, D+ measured using zig zag transect, TPA determined from measured plots, spacings)

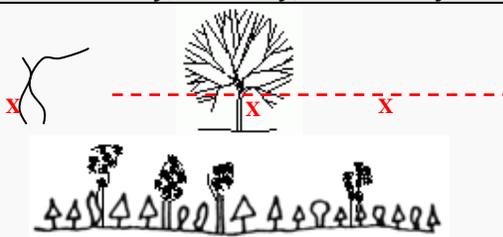
Note: A clear cut harvest can be a planned forest stand improvement leading to reforestation!

Field or Stand#	Managed Tree(s) Type/Species	Measurement Method	Current Stocking/Spacing	Planned Stocking/Spacing	Method/Type of Thinning

Thinning can be commercial, where a wood product is removed from the site for specified remuneration; or, non (pre) commercial, where trees are felled/killed and left on site. An operation that creates openings for wildlife would be a stocking/spacing manipulation. A registered consultant forester should be used to mark thinning involving commercial harvest.

**Additional Notes or Requirements:** Inspect for: next thinning 20\_\_\_\_; prescribed burn 20\_\_\_\_; Other: \_\_\_\_\_

#### Other Overstory, Midstory, Understory Management



Overstory, midstory, understory management activity that does not involve harvest or stocking/spacing manipulation (ex. herbicide release or seedlings, hack and squirt removal of midstory, understory invasive removal).

Field or Stand#	Managed Tree(s) Type/Species	Competing Species			Method/Type of Control
		1.	2.	3.	

**Additional Notes or Requirements:** Inspect for: additional treatment 20\_\_\_\_; prescribed burn 20\_\_\_\_; Other: \_\_\_\_\_

**Forest Stand Improvement – Additional Information & Instructions**

**CAUTION: Check for any utilities (underground or overhead) before operating machinery in and around forestland!!!!**

Pesticides

*As applicable for Forest Stand Improvement activity involving planned herbicide use.*

Specific pesticide recommendations will be obtained from personnel who are licensed by the NC Department of Agriculture and Consumer Services in specialty area Agricultural Pest Plant Category G (forest) - in accordance with North Carolina Pesticide Laws and Regulations.

All pesticides must be registered for use by North Carolina and approved for use by the U. S. Environmental Protection Agency (EPA). Refer to the current issue of "North Carolina Agricultural Chemicals Manual" for guidelines, rules and regulations regarding use of pesticides. Users must **always** follow instructions and safety precautions on the container label when handling, applying, or storing pesticides.

Professional Forester Services

*The use of a registered consultant forester recommended for all forest stand improvement activities especially those involving the sale and harvest of commercial timber and wood products.*

Compliance with Federal, State and Local Laws

*Installation and application of this practice MUST comply with all applicable federal, state and local laws or ordinances! Reference NC Forest Practices Guidelines and NC Forestry Best Management Practices for Water Quality for information on required Stream Management Zone widths, specific watershed rules and other water quality requirements and recommendations forest stand improvement activities.*

**Additional requirements:**

**Operation and Maintenance**

Operation – *Periodically inspect during and after forest stand treatment activities to insure that objectives are achieved and resource concerns (like water quality) are met.*

Maintenance - *Inspect trees periodically for pest (insects and weeds) and disease problems. Protect from wildfire, livestock grazing, and herbicide damage.*

*Consider prescribed burning as an additional management follow-up alternative on forest stand improvement areas...talk with your forester or NRCS representative for more information on prescribed burning.*

**Additional requirements**

**Maps and Field(s) Location**

*See conservation plan map for location of forest stand improvement fields/stands!*

**Certifications**

<i>Job Sheet</i>	Prepared by:	Title:	Date:
	Approved by:	Title:	Date:
<i>Installation</i>	Meets NRCS standards and specifications?	<input type="checkbox"/> YES <input type="checkbox"/> NO	Date:
	Certification by:	Title:	

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