

Forest Stand Improvement

Virginia Conservation Practice Job Sheet

666



Definition

The manipulation of species composition, stand structure, or stand density by cutting or killing selected trees or understory vegetation to achieve desired forest conditions or obtain ecosystem services.

Criteria

Identify the harvest-regeneration strategy for all planned forest improvement harvesting:

- Uneven-aged management systems (e.g., single-tree selection, group selection, patch clear-cut, and coppice selection)
- Even-aged management (e.g., clear-cut, seed- tree, shelterwood, thinning, and coppice)

Describe the extent or size and orientation of treatment area(s).

Identify and retain preferred tree and understory species to achieve all planned purposes and landowner objectives.

Use the Virginia Plant establishment Guide for species and species groups to determine spacing, density, size-class distribution, number

of trees, and amount of understory species to be retained. Schedule treatments to avoid overstocked conditions using approved silvicultural/ stocking guides.

Stocking guidelines shall contain stocking in terms of basal area, spacing or trees per acre by species and size class distribution.

Protect site resources, e.g., residual trees, wetlands, cultural resources, improvements and utilities by selecting the appropriate method, felling direction and tree harvest timing. Time tree felling to avoid buildup of insect or disease populations. The method, felling direction and timing of tree cutting for harvesting shall protect site resources, e.g., residual trees, wetlands, cultural resources, improvements and utilities. Felling direction must be compatible with trail layout as specified by Virginia Conservation Practice Standard *Forest Trails and Landings* (Code 655).

Implement forest stand improvement activities in ways that avoid or minimize soil erosion, compaction, rutting, and damage to remaining vegetation, and that maintain hydrologic conditions. Protect site resources by selecting the method, felling direction and timing of tree felling, and heavy equipment operation. For temporary access use Virginia Conservation Practice Standard *Forest Trails and Landings* (Code 655) to protect soil and site resources from vehicle impacts. Refer to "Forestry Best Management Practices for Water Quality" in the Virginia Field Office Technical Guide, Section I.

Where slash and debris will be generated, use Virginia Conservation Practice Standard *Woody Residue Treatment* (Code 384), to appropriately treat slash and debris, as necessary, to assure that it will not present an unacceptable fire, safety, environmental, or pest hazard. Remaining woody material will be placed so that

it does not interfere with the intended purpose or other management activities. Do not burn vegetative residues except where fire hazard or threats from diseases and insects are of concern or when other management objectives are best achieved through burning. When slash and other debris will be burned onsite use Virginia Conservation Practice Standard (CPS) Prescribed Burning (Code 338).

Comply with applicable federal, state and local laws and regulations during the installation, operation and maintenance of this practice to include best management practices for water quality.

Refer to “Forestry Best Management Practices for Water Quality” in the Virginia Field Office Technical Guide, Section I and the Virginia Seed Tree Law.

Specific pesticide recommendations will be obtained from personnel who are licensed by the Virginia Department of Agricultural and Consumer Services in one of the forest pest management categories in accordance with Virginia’s Pesticide Laws and Regulations.

If chemical herbicides or pesticides are used, follow all instructions for the particular chemical as outlined in the Virginia Pest Management Guide (2016 edition and subsequent revisions) as maintained by the Virginia Cooperative Extension Service. The specific pesticide container label addressing instructions and safety precautions shall be strictly followed as it applies to handling, applying in proximity to water resources, and storage.

Manage for specific or a variety of cover types, tree species, size-classes, and stocking rates at the appropriate scale that meet desired wildlife habitat requirements.

Create, recruit and maintain sufficient snags and down woody material to meet requirements of desired wildlife species in balance with conditions needed to achieve other intended purposes.

Minimize improvement actions that disturb seasonal wildlife activities.

Reduce stocking rates of trees to minimize crown-to-crown spread of fire.

Remove “ladder” fuels to minimize the occurrence of crown fires.

Further treat or eliminate slash accumulations next to roads and trails.

Reduce or eliminate species with high volatility but not to a level that would compromise other intended purposes.

For additional wildfire risk and damage reduction, refer to the Virginia Conservation Practice Standard *Firebreak (Code 394)*.

NOTE: This summary does not address all requirements and considerations in the VA Forest Stand Improvement Practice Standard (VA-666). Consult the Practice Standard for further details.

Producer _____ Farm # _____ Tract # _____

Field Office _____ Contract # _____

Producer's Purpose	
<input type="checkbox"/> Improve and sustain forest health and productivity	<input type="checkbox"/> Reduce damage from pests and moisture stress
<input type="checkbox"/> Initiate forest stand regeneration	<input type="checkbox"/> Increase or maintain carbon storage
<input type="checkbox"/> Improve wildlife and pollinator habitat	<input type="checkbox"/> Restore or maintain natural plant communities
<input type="checkbox"/>	<input type="checkbox"/> Initiate forest stand regeneration
<input type="checkbox"/> Reduce wildfire risk and hazard and facilitate prescribed burning	
<input type="checkbox"/> Increase or maintain carbon storage	<input type="checkbox"/> Alter quantity, quality, and timing of water yield

Practice Specifications:

Practice specifications will be developed individually for each forest stand with the landowner. Specification will comply with the Conservation Practice Standard Forest Stand Improvement (Code 666). All decisions concerning extent, implementation methods, and other specific technical decisions will be documented on the job sheet or other acceptable method.

Forestry plan attached

Forestry map attached

Implementation Methods

		Field #	Acres	Field #	Acres
Pre-commercial Thinning					
Chemical crop tree release					
Mechanical crop tree release					
Group selection					
Harvest/cut date					
Commercial thinning					
Current Stocking /Spacing					
Planned Stocking /Spacing					
Single tree selection					
Prescribed burning					

Treatment Dates					

Before and after photos? Yes No (If no, please specify.)

Operation and Maintenance

Prepare an Operation and Maintenance plan for the site and review it with the operator. The plan will describe actions that must be taken to ensure that the practice is applied correctly during its design life. As a minimum, include periodic inspections for assessment of insects, disease, and other pests, storm damage, and damage by trespass. Use NRCS CPS Code 655, Forest Trails and Landings, to control erosion on forest roads, skid trails, landings, and adjacent areas by installing/maintaining vegetative and structural practices. Treatments needed for pests—see Additional Criteria to Improve and Sustain Forest Health and Productivity section in this document. Treatments needed for storm damage—use NRCS CPS Code 384, Woody Residue Treatment, to appropriately treat slash and debris. Treatments for damage by trespass: use NRCS CPS Code 472, Access Control, to prevent future damage.

Periodic inspections during and after treatment activities are necessary to ensure that purposes are achieved and resource damage is minimized, e.g., assessment of insects, disease and other pests, storm damage, and damage by trespass. The results of inspections shall determine the need for additional treatment under this practice.

Planner Certification

The Forest Stand Improvement practice planned in this job sheet fulfills minimum requirements of Virginia NRCS Conservation Practice Standard 666.

Signature Title Date

Certification of Practice Completion

The Forest Stand Improvement practice planned in this job sheet has been completed and maintained according to Virginia NRCS specifications (indicate in Practice Specifications if any changes to planned activities and acreage).

Signature Title Date

