



**CONSERVATION ENHANCEMENT ACTIVITY
E666137Z6**

**CONSERVATION
STEWARDSHIP
PROGRAM**

**Create patch openings to enhance
wildlife cover and shelter**

Conservation Practice 666: Forest Stand Improvement

APPLICABLE LAND USE: Forest

RESOURCE CONCERN ADDRESSED: Fish and Wildlife – Inadequate Habitat

PRACTICE LIFE SPAN: 10 Years

Enhancement Description:

Forest stand improvement that creates patch openings. Size, shape, and arrangement of patches will be based on natural features, and emulate patches that would result from natural disturbance regimes of wind or fire, varying geographically and by forest type, and by tree species desired from natural regeneration. The treatment will create diversity in stand composition and structure, and enhance the availability of wildlife cover and shelter.

Forest stand improvement (FSI) can be used to create small openings where all of the trees are removed. Creating openings may serve to restore natural plant communities, and achieve or maintain a desired understory plant community to provide wildlife habitat. Habitat for certain wildlife species is improved by increasing by the amount of edge, cover and diversity of the tract.

Criteria:

States will apply general criteria from the NRCS National Conservation Practice Standard (CPS) 666 as listed below, and additional criteria as required by the NRCS State Office.

- Develop or update a forest management plan in consultation with NRCS personnel and a professional forester to direct the management of the property.
- This enhancement may be applied only to forested acres that have an “acceptable growing stock” level. For tree species with stocking charts, this is at least the B line, the lowest level of a fully stocked stand.



CONSERVATION STEWARDSHIP PROGRAM

- The size of patches to be treated can vary from 1 to 10 acres, be distributed throughout the forest and cannot total more than 30% of the acres meeting the “acceptable growing stock” level.
- Forested acres targeted for patch development must contain species for regeneration from the NRCS state list of suitable trees. Species on this list have the ability to regenerate from seed, sprouts, or other natural regeneration sources.
- Preferentially locate patch openings in areas that lack crop trees or wildlife trees, and where there is an aggregation of trees that are:
 - At high risk of mortality or failure (unless retained as a wildlife tree)
 - Of low crown vigor
 - Of poor stem form and quality
 - Less-desirable species.
- Trees removed during patch development having marketable quality can be sold.
- Where slash and debris will be generated, use CPS 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 CPS Prescribed Burning (Code 338).
- Slash and cull trees must be managed if the material interferes with the production of wildlife food. The material may be managed as follows:
 - Windrowing
 - Wildlife piles
 - Chipping
 - Cutting for firewood
 - In appropriate stands, prescribed burning may be used.
- Refer to criteria in CPS Integrated Pest Management (Code 595) to assist with site-specific strategies for pest prevention, pest avoidance, pest monitoring, and pest suppression. Time tree felling to avoid buildup of insect or disease populations.
- Control measures may be used on undesirable competing vegetation, to favor the development of desirable vegetative communities on the site. Vegetation may be treated by chemical methods such as spraying or single stem treatments, or mechanical methods like a

CONSERVATION STEWARDSHIP PROGRAM

heavy duty brush cutter or similar equipment. Refer to criteria in NRCS Conservation Practice Standard (CPS) Integrated Pest Management (Code 595).

- For areas adjacent to patch openings, leave residual trees and shrubs that provide a diversity of wildlife food sources.
- 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 CPS Forest Trails and Landings (655), to protect soil and site resources from vehicle impacts.
- Use CPS Access Road (560), for more heavily used roads associated with forest stand improvement activities.
- The enhancement will comply with all applicable federal, state, and local laws and regulations, and with States' Forestry Best Management Practices for Water Quality.
- If management of the remaining forest area (between patch openings) provides a conservation benefit, management can be accomplished at the same time as patch opening creation. Use applicable criteria from CPS Forest Stand Improvement (Code 666) when managing the general forest area.

Documentation Requirements:

- Map showing the stand to be treated.
- Identify the locations and shapes of the patch openings. Document the size of each patch, and the total percentage of the stand in openings.
- Site suitability and acceptable growing stock evaluation for each stand where openings will be created.
- Specific stand-stocking guidelines, including evaluation of acceptable growing stock, will document both the pre- and post-treatment stand condition.
- Identify the desired species to be regenerated, and include documentation that these species are present and vigorous enough to produce seeds, shoots, sprouts, or other means of natural regeneration.
- Documentation that patch cut activities were completed (e.g. photos, sale receipt).



- Additional documentation as required by NRCS State Office.

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