



CONSERVATION ENHANCEMENT ACTIVITY

E666133Z1

CONSERVATION STEWARDSHIP PROGRAM

Creating structural diversity with patch openings

Conservation Practice 666: Forest Stand Improvement

APPLICABLE LAND USE: Forest; Associated Ag Land; Farmstead

RESOURCE CONCERN ADDRESSED: Degraded Plant Condition

ENHANCEMENT LIFE SPAN: 10 Years

Enhancement Description

Forest stand improvement that creates patch openings. Size and shape of patches will be based on characteristic natural wind disturbances, which will vary geographically and by forest type.

Criteria

- States will apply general criteria from the NRCS National Conservation Practice Standard Forest Stand Improvement (Code 666) as listed below, and additional criteria as required by the NRCS State Office.
- Describe the extent or size and orientation of treatment area(s).
- Forested acres planned for this enhancement must be treated during the contract period.
- Forests must have an “acceptable growing stock” level below 80 sq. ft. of basal area per acre.
- 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.
- Size of patches to be treated can vary from 1 to 10 acres, be distributed throughout the forest and cannot total more than 50 percent of the area.

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- Trees removed during patch development having marketable quality can be sold.
- Slash and cull trees within patches must be mitigated to allow for natural regeneration to occur. This can be accomplished by killing remaining live trees in patch areas and following up with:
 - Windrowing or Wildlife piles OR Chipping or Removal for firewood
- Refer to criteria in NRCS Conservation Practice Standard 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.
- 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 NRCS Conservation Practice Standard Forest Trails and Landings (Code 655), to protect soil and site resources from vehicle impacts.
- Use NRCS Conservation Practice Standard Access Road (Code 560), for more heavily used roads associated with forest stand improvement activities.
- Where slash and debris will be generated, use NRCS 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 NRCS Conservation Practice Standard Prescribed Burning (Code 338).
- 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 NRCS Conservation Practice Standard Forest Stand Improvement (Code 666) when managing the general forest area.

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Documentation and Implementation Requirements:

Participant will:

- Prior to implementation, select areas for patch openings that contain species for regeneration from the NRCS state list of suitable trees that have the ability to regenerate from seed, sprouts, or other natural means and document these are present and vigorous enough to regenerate. (NRCS will provide technical assistance, as needed.)
- Prior to implementation, with NRCS technical assistance, determine the size, shape, location, and distribution of openings throughout the forest, with the size of each opening being between 1-10 acres and the total acres in openings being less than 50% of eligible forest acres based on stocking. Locate openings in areas that lack crop trees and where there is an aggregation of trees that are:
 - At high risk of mortality or failure
 - Of low crown vigor
 - Of poor stem form or quality
 - Less-desirable species
- During implementation, manage slash and cull trees by windrowing, creating wildlife piles, chipping, cutting for firewood, and/or prescribed burning if appropriate.
- During implementation, protect the site from plant and animal pests, fire, and adverse impacts to the soil resource.
- After implementation, provide NRCS a map showing the location of patches and photos documenting that patch cuts were completed according to specifications.

NRCS will:

- Prior to implementation, verify the enhancement activity is planned for acres that meet the criteria within the enhancement guide sheet.
- Prior to implementation, provide technical assistance in:
 - Identifying size, shape, location, and distribution of openings, including percentage of the stand that will be in openings, to meet the criteria within the enhancement guide sheet.
 - Evaluating stocking and acceptable growing stock for both pre- and post-treatment stand conditions.
 - Identifying desired species to be regenerated in the openings.

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- Prior to implementation, provide and explain NRCS Conservation Practice Standards Forest Stand Improvement (Code 666), Woody Residue Treatment (Code 384), Prescribed Burning (Code 338), Integrated Pest Management (Code 595), and Forest Trails and Landings (Code 655) as they relate to implementing this enhancement.
- During implementation, evaluate any planned changes to verify they meet the enhancement criteria.
- After implementation, verify the planned patch openings were established to specifications developed for the site.

NRCS Documentation Review:

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

Participant Name _____ Contract Number _____

Total Amount Applied _____ Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date