



**CONSERVATION ENHANCEMENT ACTIVITY**

**E666133X**

**CONSERVATION STEWARDSHIP PROGRAM**

Forest Stand Improvement to rehabilitate degraded hardwood stands

**Conservation Practice 666: FOREST STAND IMPROVEMENT**

**APPLICABLE LAND USE: Forest**

**RESOURCE CONCERN ADDRESSED: DEGRADED PLANT CONDITION – Inadequate Structure and Composition**

**PRACTICE LIFE SPAN: 10 Years**

**Enhancement Description**

Hardwood forestland has been subject to poor logging practices (“high-grading”) for decades. Without professional forestry assistance the best species and individual trees are removed, often before maturity (“diameter-limit cutting”), leaving the poorest species and individual trees to regenerate the stand. Reversing this process requires cutting or killing poor quality trees while retaining any desirable species that might still be present. A combination of 3 silvicultural methods are applied: crop tree release, group selection (all trees removed from an area 0.25 to 1.0 acre in size) and small clearcuts (all trees removed from an area 1-3 acres in size).

**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.

- Identify tree species (crop trees) that meet objectives for the stand (timber, wildlife, visual quality, etc.). Some crop tree species will meet multiple objectives (oak, cherry, black walnut, tulip-poplar, pine, spruce).
- Crop trees will receive a crown-touching release: any undesirable trees touching a crop tree crown will be cut or killed.
- Areas of 0.25 acre or more with no crop trees will be clearcut, up to 3 acres in size.



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- Forest stand improvement activities will be planned and applied in a manner to meet the habitat requirements for wildlife species of concern as determined by the state's NRCS Wildlife Habitation Evaluation Guide (WHEG) and will be managed to achieve or maintain a value of 0.75 or greater.
- Invasive species will be controlled before tree cutting begins.
- Refer to criteria in CPS Integrated Pest Management (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.
- Treatment activities will be conducted during periods of the year that accommodate reproduction and other life-cycle requirements of the targeted wildlife and pollinator species.
- Retain a diversity of tree species, where possible, to reduce the potential impact of an epidemic event (e.g. insect outbreak) that may kill trees of some species.
- Trees removed that have marketable quality can be sold.
- Killed trees that do not interfere with tree regeneration shall be left standing to provide wildlife habitat, except where snags will become a safety hazard (within 100 ft. of a building, power line, road, etc.) or create a fire hazard. Snags that must be cut for safety reasons shall be left on site to become coarse woody debris on the forest floor (unless they create a fire hazard).
- As applicable, cut damaging vines away from crop trees
- 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.



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- Where slash and debris will be generated, use CPS Woody Residue Treatment (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 (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.

### **Documentation Requirements**

- A forest management plan will document crop tree selection criteria, and specify how undesirable trees and shrubs will be cut or killed.
- Completion of the state-specific forest stand improvement (CPS 666) job sheet for the specific site or farm.
- WHEG evaluation must be completed before implementation and after implementation of this enhancement. Minimum WHEG value after implementation must be 0.75 or greater.
- Map(s) delineating the area that will be treated.
- Additional documentation as required by NRCS State Office.