

These deliverables apply to this individual practice. For other planned practice deliverables refer to those specific Statements of Work.

DESIGN

Deliverables:

1. Design documents that demonstrate criteria in NRCS practice standard have been met and are compatible with planned and applied practices.
 - a. Practice purpose(s) as identified in the conservation plan
 - b. List of required permits to be obtained by the client
 - c. Practice standard criteria-related computations and analyses to develop plans and specifications including but not limited to:
 - i. Determination of the harvest-regeneration strategy and the species of tree and understory vegetation to be retained
 - ii. Timing and method of removal for trees and understory to be eliminated
 - iii. Mitigation of wildfire hazard, erosion, runoff, soil compaction and soil displacement to acceptable levels
2. Written plans and specifications including sketches and drawings shall be provided to the client that adequately describe the requirements to install the practice and obtain necessary permits.
3. Documentation of needed operation and maintenance.
4. Certification that the design meets practice standard criteria and comply with applicable laws and regulations.
5. Design modifications during installation as required.

Note: Species to Favor

1. To select desirable species for the forest land site refer to Field Office Tech Guide, Section II-Forestland Interpretations, Section II-Windbreak Interpretations, or <http://soildatamart.nrcs.usda.gov/County.aspx?State=NE>.
2. Additional information related to appropriate species composition for native woodland and forest sites can be found in Terrestrial Natural Communities of Nebraska – Version IV (Nebraska Biology Technical Note #65). Projects intended to improve wildlife habitat should be designed to emphasize native species noted within that natural community.
3. Priority shall be given to improving sites having site indices of 55 or greater for the species selected (Section II-Forestland Interpretations). Site index is defined as a relative measure of forest site quality based on the height (in feet) of the dominant trees at a specified age (USFS, 1989; NE FOTG, II, Forest Land Interpretations, Guides to Suitable Soils for Wood Crops).

Trees to favor in Nebraska include: ponderosa pine, black walnut, eastern cottonwood, green ash, hackberry, bur oak, northern red oak, bitternut hickory, shagbark hickory, silver maple, and basswood.

INSTALLATION

Deliverables

1. Pre-application conference with client.
2. Verification that client has obtained required permits.
3. Layout and, as applicable, sample marking of 'leave' trees or 'take' trees according to plans and specifications including applicable layout notes.
4. Application guidance as needed.
5. Facilitate and implement required design modifications with client and original designer.
6. Advise client/NRCS on compliance issues with all federal, state, tribal, and local laws, regulations and NRCS policies during installation.
7. Certification that the application process and materials meet design and permit requirements.

Note: Wildlife Considerations

1. Leave beneficial trees, shrubs, and vines throughout the stand when they are not interfering with the growth of trees with commercial value. Understory structure is important to many wildlife species to serve as escape/hiding cover, nesting/fawning cover, and other uses. Refer to NE FOTG, Section II-Windbreak Interpretations, Conservation Tree/Shrub Groups, for information on wildlife value associated with each species.

2. Remove trees, shrubs, and vines considered invasive, or that provide low wildlife value, in favor of beneficial woody species. This removal may facilitate establishing snags, brush piles, edge feathering, or forest openings as described below.
3. Allow a select number (approximately 1-2 per acre) of older cull trees to remain as wildlife den trees or roost trees. These trees often provide either hollow trunks and/or an open limb structure.
4. Maintain snags (standing dead trees) that are ≥ 6 feet tall and 6 inches DBH to provide habitat for cavity-nesting species. At least 3 snags per acre are desired with at least one snag ≥ 10 inches DBH.
5. Provide one brush pile or more per acre to serve as habitat for small mammals and associated predators. Each brush pile should be a minimum of 15 feet in diameter and 5 feet tall.
6. Scatter additional slash material in loose patches throughout the stand to benefit species such as bobwhite quail and wild turkey. These loose patches can also be positioned to protect desired seedlings and saplings from damage caused by deer browsing and livestock trampling.
7. Create an edge or border between the forest and open field that is irregular, rather than straight. A 50 feet strip could be left untreated on the edge of the stand or edge feathering could be accomplished within this zone. Edge feathering involves cutting and leaving a portion of the larger trees along the forest edge to increase sunlight penetration and stimulate growth of understory woody and herbaceous cover.
8. Develop small forest openings within the forest stand varying in size from 0.5 acre to 5 acres and comprising 10% to 25% of the total area. Consider the needs of any area-sensitive forest wildlife species in relation to the total size of the stand prior to implementing this type of management.
9. Utilize management strategies that result in multiple age classes comprised of multiple species of woody vegetation to provide a diversity of structure and species composition to benefit a wider array of wildlife species.
10. Plant native vegetation within the stand to increase diversity of species composition and/or structure. A priority should be placed on mast-producing trees, shrubs, and vines as well as forbs within the herbaceous understory community. Refer to FOTG, Section II, Windbreak Interpretations, Conservation Tree/Shrub Groups for woody species. Information on herbaceous species and establishment is located in Herbaceous Vegetation Design Procedures (550DP).
11. For additional guidance refer to Upland Wildlife Habitat Management (645) and Wetland Wildlife Habitat Management (644). Supplemental information may also be provided in Restoration and Management of Rare or Declining Habitats – Woodland/Forest Design Procedures (643DPb) for native communities.

Address wildlife habitat quality criteria using the Woodland Habitat Evaluation Worksheet (NE-CPA-36) to meet a planned score of 0.5 or greater. Species-specific habitat models may also be used where appropriate.

CHECK OUT

Deliverables

1. Records of application.
 - a. Extent of practice units applied
 - b. Actual mitigation measures used and applied
2. Certification that the application meets NRCS standards and specifications and is in compliance with permits.
3. Progress reporting.

Natural Resources Conservation Service
STATEMENT OF WORK (SOW)
FOREST STAND IMPROVEMENT (666)

REFERENCES

- NRCS Field Office Technical Guide (eFOTG), Section IV, Conservation Practice Standard – Forest Stand Improvement, 666
- NRCS National Forestry Handbook (NFH), Part 636.4
- NRCS National Environmental Compliance Handbook
- NRCS Cultural Resources Handbook

Note: *State-Specific references*

[A Complete Natural Resource Inventory Glossary with Emphasis on Forestry, based on USDA Forest Service, Interim Resource Inventory Glossary, 6/89](#)

[Conservation Tree/Shrub Groups, NE FOTG, Section II-Windbreak Interpretations](#)

Forest Land Interpretations, Guides to Suitable Soils for Wood Crops, NE Field Office Technical Guide, Section II (not available electronically)

[Forest Stand Improvement \(666\), NE FOTG, Section IV](#)

[Herbaceous Vegetation Design Procedures \(550DP\), NE FOTG, Section IV](#)

[How to Prune Trees](#), NE Forestry Technical Note 71

[Missouri Field Office Technical Guide, Controlling Undesirable Trees and Shrubs, Conservation Practice Information Sheet \(IS-MO666cut\), 1/06](#)

[Ohio State University, Extension Fact Sheet F-45-97, Controlling Undesirable Trees, Shrubs, and Vines in Your Woodland, by Randall B. Heiligmann, 1997](#)

[Restoration and Management of Rare or Declining Habitats - Woodland Forest Design Procedures \(643 DPb\), NE FOTG, Section IV](#)

Terrestrial Natural Communities of Nebraska – Version IV, NE Biology Technical Note 65

[Tree/Shrub Pruning \(660\), NE FOTG, Section IV](#)

[Tree/Shrub Pruning Design Procedures \(660DP\), NE FOTG, Section IV](#)

[Upland Wildlife Habitat Management \(645\), NE FOTG, Section IV](#)

[Wetland Wildlife Habitat Management \(644\), NE FOTG, Section IV](#)

[Woodland Habitat Evaluation Worksheet \(NE-CPA-36\)](#)

CHECK OUT DELIVERABLES (Provide copies/verification/documentation for each deliverable to NRCS)

Provide records that Forest Stand Improvement plan was installed according to specifications including completed job sheets & required recordkeeping.

Progress reporting completed in Performance Results System (PRS):

Amount applied: _____ Date: _____ Reported by Whom: _____

CERTIFICATION:

I have completed a review of the technical assistance documentation submitted for this practice and certify that NRCS Standards and Specifications are met and all applicable laws and regulations are complied with.

Design Installation Checkout (Check each category of documentation submitted with this certification)

Certified by:

/s/ _____ Date: _____

Title: _____ Representing: _____