



CONSERVATION ENHANCEMENT ACTIVITY

E666P

CONSERVATION STEWARDSHIP PROGRAM

Summer roosting habitat for native forest-dwelling bat species

Conservation Practice 666: Forest Stand Improvement

APPLICABLE LAND USE: Forest, Associated Ag Land, Farmstead

RESOURCE CONCERN: Animals

ENHANCEMENT LIFE SPAN: 10 Years

Enhancement Description

Create new potential roost trees within upland and riparian forests to achieve desired summer habitat for forest-dwelling bat species.

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.
These criteria and any tree removal activities will be coordinated with U.S. Fish and Wildlife Service (USFWS). This includes the establishment of minimum criteria to meet the habitat requirements of the bat species of concern while avoiding potentially detrimental disturbances during the maternity period.
Create additional snags within the forested acres by girdling/killing live trees. When choosing trees to kill, consider that the majority of snag-roosting bats prefer the largest available snags, which often extend above the forest canopy and retain bark for a longer period of time. Also focus on killing trees that are undesirable for quality forest products due to species or form.
Promote use of live trees with loose or exfoliating bark by killing all trees adjacent (canopies within 15 feet of habitat tree) to trees determined to have desired bark characteristics, as defined by NRCS state technical staff. Larger diameter trees should be considered as habitat trees, as desirable bark characteristics tend to improve with the



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size and age of the tree. Large/mature trees also develop splits, breaks, dead limbs, and cavities that serve as roosting areas.

- Habitat trees should be distributed evenly across the treated acres.
- The combined snags and live, loose bark trees should be created or maintained at a combined rate as determined to be necessary to meet the habitat requirements of the bat species of concern and the specific forest type, as defined by the USFWS and NRCS state technical staff.
- The enhancement will comply with all applicable federal, state, and local laws and regulations, and with States' Forestry Best Management Practices for Water Quality.
- When determining which trees will be killed for snag creation, and/or used to create loose/exfoliating bark, consider effects on the remaining stand.
 - Identify and retain preferred tree and understory species to achieve all planned purposes and landowner objectives.
 - Use available guidelines 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.
 - 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.



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Documentation and Implementation Requirements:

Participant will:

- Prior to implementation, work with NRCS to complete a wildlife habitat evaluation guide or State equivalent.
- Prior to implementation, obtain a wildlife habitat management plan for the targeted species suite which includes:
 - Wildlife Habitat Evaluation Guide scores for benchmark and desired conditions.
 - The minimum criteria to meet the targeted species habitat requirements.
 - A plan map indicating the stands and individual trees selected for the treatment.
 - A list of NRCS Conservation Practice Standards that will be applied to reach the desired habitat conditions
- During implementation, keep a field log which includes:
 - Treatment dates
 - Count of treated (girdled) trees and treatment actions completed (i.e. removal of canopies within 15 feet of habitat tree).
- During implementation, notify NRCS of any planned changes, notify NRCS of any planned changes to verify they meet the enhancement criteria.
- After implementation, notify NRCS that implementation has been completed.
- After implementation, make the follow items available for NRCS review to verify implementation of the enhancement:
 - Wildlife Habitat Management Plan.
 - Wildlife habitat plan treatment map.
 - Field log.
 - Digital photographs.



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NRCS will:

- Prior to implementation, assist the participant in completing the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG) or State equivalent. **Target Bat Species of concern:** _____
Current/Existing Condition WHEG score: _____
Planned WHEG score after implementation: _____
- Prior to implementation, provide participant assistance in the development of a wildlife habitat management plan.
- Prior to implementation, provide participant with additional technical assistance to the, as requested.
- During implementation, as needed, evaluate any planned changes to verify they meet the enhancement criteria.
- After implementation, verify implementation of the wildlife habitat management plan, by reviewing field log records kept and digital photographs taken during enhancement implementation.
- After implementation, complete the state's approved NRCS Wildlife Habitat Evaluation Guide (WHEG) or State equivalent. **WHEG score after implementation:** _____

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



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Enhancement Description: Summer roosting habitat for native forest- dwelling bat species

Where forest ESD's are available use them to determine site characteristics and needs. When ESD's are not available, consider the following:

Stand has not been high graded, removing the largest and best while leaving the smallest and poorly formed.

Refer to local ODF, regional, or state forester for stocking assistance for specific geographic considerations.

Forest Practice Permits are filed, and stand is compliant. This ensures that best management practices for water quality are met.

It shall be the responsibility of the client to obtain all necessary permits and/or rights, and to comply with Oregon Forest Practices Act and local ordinances and laws pertaining to the application of this practice

If fire danger is a concern or if prescribed fire is planned, understory should be reduced to approximately 24" in height and standing trees should be pruned to 50% live crown.

Snags, downed woody material and potential roost trees are protected and maintained as per state regulations. This is typically 2 snags, 2 downed logs and 2 roost or recruitment trees per acre of forest land.

When targeting bat species avoid forest activity during maternity period (Mid June- August)
Bat boxes should be considered and pools of open water should be unobstructed so as not to interrupt flight paths.

When implementing this enhancement avoid cutting pine stands during the growing season, green slash often will encourage beetle movement, potentially damaging healthy trees.

Where Terrestrial Habitat resource concern is selected follow state wildlife guidance.

- Use an Oregon Wildlife Habitat Evaluation Guide to determine general habitat condition.

[eFOTG: Section 3: Oregon Conservation Planning Documents: Wildlife Habitat Inventory Documents:](#)



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- Use the CSP State Wildlife Species List for the WHEG for the species of interest. Direct any additional questions regarding this WHEG guidance to your basin or state wildlife biologist.

[Slicer – Priority Oregon Wildlife Species](#)

General Information:

Field Guide for the Identification and Use of Common Riparian Woody Plants of the Intermountain West and Pacific Northwest Regions

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_045486.pdf

Westside:

A guide to Riparian Tree and Shrub Planting in the Willamette Valley: Steps to Success:

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/em9040.pdf>

A guide to riparian tree planting in southwest Oregon:

http://knowyourforest.org/sites/default/files/documents/Riparian_planting_OSU.pdf

Eastside:

Washington Technical Note 10: Riparian Revegetation Plants:

[https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/](https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wapmctn6334.pdf)

[wapmctn6334.pdf](https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wapmctn6334.pdf)

Plant Vendors:

Plant and Seed Vendors for Oregon, Washington, Idaho and Northwest California.

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_041918.pdf

Native Plant Resources for Southwest Oregon:

http://www.ashland.or.us/Files/native%20plant%20resources_1014-2.pdf

More guidance on managing diversity in Dry Western Forest

https://www.fs.fed.us/pnw/pubs/pnw_qtr628.pdf