

Animal Enhancement Activity – ANM15 -Forest Stand Improvement for Habitat and Soil Quality



A recent thinning creates downed wood and opens the stand which will increase forest understory growth and diversity. Two to 3 live trees per acre will be girdled to create snags based on community phase data in the Ecological Site Description. About 1 to 2 snags per acre are already present. Den/cavity trees have been retained throughout the thinned area.

Forest Stand Improvement - Habitat and Soil Quality

This enhancement consists of the creation of snags, den trees, and coarse woody debris on the forest floor to a level optimum for native wildlife usage and long-term forest soil health. It may be implemented during thinning or harvesting or it can be implemented separately.

Land Use Applicability

This enhancement is applicable on forestland.

Benefits

The natural abundance and distribution of snags, den trees (trees with cavities) and coarse forest floor wood have been altered by decades of land conversion, fire suppression, and timber and firewood harvest. Creating an optimum level of such materials provides nesting and hiding cover and substrate for bird, mammal, reptile, and amphibian species while also providing the insects and detritus on which they feed. Downed wood is a preferred growing medium for various species of bryophytes, lichens, and fungi. Rotting wood found on the forest floor and later integrated in the soil surface layer by decomposition provides seedbeds for a variety of tree, shrub, and herbaceous species as well a rooting medium that retains moisture during dry periods.

Criteria for Forest Stand Improvement - Habitat and Soil Quality

This enhancement requires:

- Creation of snags
- Downed wood
- Suitable den/cavity trees distributed throughout the area being treated.

The levels and distribution of materials must be equal to levels found in similar natural community phases indicated in the correlated Ecological Site Description (ESD).

If a suitable ESD has not been developed, NRCS State Offices will develop an example site description that defines the number of snags, the amount of downed wood and number of den trees expected per acre.



United States Department of Agriculture
Natural Resources Conservation Service

This enhancement is implemented mainly by managing existing live trees, dead snags and woody debris. It may be implemented during thinning or harvesting operations or may be undertaken separately. Refer to Conservation Practice Standard Forest Stand Improvement-666 for criteria on the creation of snags, den/cavity trees, and downed wood.

Documentation Requirements for Forest Stand Improvement - Habitat and Soil Quality

Following implementation of this activity, the landowner must document:

- The average number of snags per acre
- An estimate of percentage of the forest floor covered by downed wood.
- The average number of den/cavity trees per acre
- Delineations on a map or aerial photo of the areas having the distribution of snags per acre, percent cover downed wood, and/or den/cavity trees per acre
- Representative digital pictures of snags, downed wood, and den/cavity trees

TENNESSEE SUPPLEMENTAL INFORMATION FOR THIS ENHANCEMENT
ANM15 – Forest Stand Improvement for Habitat and Soil Quality

Ecological Site Type: FORESTLAND

Applicable Ecoregions: ALL ECOREGIONS OF THE STATE

Applicable Site Characteristic: The manageable forest must be mid to late successional, with trees commonly larger than the minimum pole size; approximately 6 inch diameter at breast height (DBH).

Snag Creation (per acre)

- Minimum average number – 5 per acre.
- Minimum tree size 6 inch DBH, with at least one per acre 15 inch or larger DBH.
- Canopy trees preferable, but at least 10 feet tall.
- Snag trees should be as evenly distributed throughout the stand as possible.
- Low quality hardwood or pine, not considered significant mast producer or timber value.
- Tree species to favor: Elm, maple, sweetgum, birch, yellow poplar, loblolly pine, Virginia pine, American sycamore, cottonwood, hackberry, cedar.

Den Tree Protection (per acre)

- Minimum average number – 4 per acre.
- Protect larger trees to extent possible.
- Maintain as even distribution as possible.
- Tree species to favor: American beech, red oak group species, sweetgum, blackgum, scaly barked species such as shagbark hickory, sugar maple, and southern white oak.

Downed wood (coarse woody debris)(per acre)

- Minimum average number of logs – 10 per acre.
- Logs must be at least 6 inch DBH to be considered coarse woody debris.
- Significant number of logs should be larger than 12 inch DBH and at least 3 feet long. Some should be at least 6 feet long.
- Significant number of felled logs should be near toe slopes, bottoms and non-southern aspects.

Producer Name:			Date:
Tract Number:			County:
Field Number	Average Number of Snags per Acre	Average Number Den Trees per Acre	Average Number of Forest Floor Logs per Acre