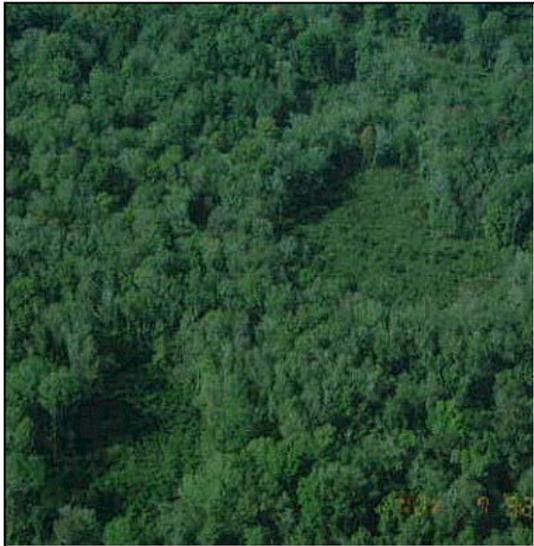


## Plant Enhancement Activity – PLT17 – Creating forest openings to improve hardwood stands



### Enhancement Description

Creating forest openings or patches is a silvicultural practice used to naturally regenerate over-mature and/or degraded hardwood stands while providing added cover and browse for several game and non-game species of wildlife.

### Land Use Applicability

Forestland

### Benefits

Years of harvesting high quality hardwood trees have left many forested acres with degraded, low quality trees. Creating a forest opening promotes the regeneration of a new, younger stand of desirable tree species by removing all standing trees in selected

areas (patches) within the forest. Patch areas are chosen based on their lack of acceptable growing stock (AGS), presence of desirable trees to regenerate the stand and presence of advanced regeneration. Wildlife habitat is increased by the amount of edge, cover and diversity of the tract created during the clearing.

### Conditions Where Enhancement Applies

This enhancement applies to forest land use acres with conifers, hardwoods or mixed stands that have a forest management plan that recommends thinning within the next 3 years.

### Criteria

1. Forested acres planned for this enhancement must be cleared during the contract period.
2. Forested acres that meet the “Conditions Where Enhancement Applies” must have an “acceptable growing stock” level below 50 sq. ft. of basal area per acre.
3. Site condition must be of medium or higher quality.
4. Forested acres targeted for patch development must contain species for regeneration from the NRCS state list. Species on this list were selected based on their abilities to regenerate from seed, sprouts or other natural regeneration sources.
5. For oaks, advance regeneration must be present or developed prior to the timber removal in order to be competitive with other faster growing species.
6. Size of patches to be treated can vary from 1 to 10 acres, be distributed throughout the forest and cannot total more than 50% of the acres meeting Criteria 2.
7. Trees removed during patch development having marketable quality can be sold.
8. Slash and cull trees must be managed to allow for natural regeneration to occur. This can be accomplished by:



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- a. Windrowing
  - b. Wildlife piles
  - c. Chipping
  - d. Cutting for firewood
9. Burning of slash is prohibited.

This enhancement is not for normal thinning or other forest stand improvement activities conducted on non-degraded sites.

### **Adoption Requirements**

This enhancement is considered adopted when forest openings have been created that meet the nine above criteria.

### **Documentation Requirements**

1. Site suitability and acceptable growing stock evaluation for each patch,
2. Identify the desired species to be regenerated and evidence they are present,
3. Map show where patches are located, and
4. Documentation that patch cut activities were completed, e.g. photo's, sale receipt.

### **References**

Healy, W. 2011. Central Hardwood Notes - Wildlife Openings. U.S. Forest Service. North Central Forest Experiment Station. Amherst, MA. [http://www.ncrs.fs.fed.us/pubs/ch/ch\\_9\\_11.pdf](http://www.ncrs.fs.fed.us/pubs/ch/ch_9_11.pdf)

Leak, W.B., 2003. Regeneration of Patch Harvests in Even-Aged Northern Hardwoods in New England. Northern Journal of Applied Forestry. 20(4):188-189.  
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Plant Enhancement Activity – *PLT17 – Creating forest openings to improve hardwood stands*

**Reference:**

- **666 – Forest Stand Improvement**
- **647 – Early Successional Habitat Development**

The following is a list of acceptable post harvest regeneration species. There may be other species appropriate for this enhancement. Verify with the local Field Office regarding tree species not included on this list.

Scientific Name	Common Name
<b>Hardwoods</b>	
Acer saccharum	sugar maple
Betula papyrifera	paper birch
Carya cordiformis	Bitternut hickory
Carya ovata	shagbark hickory
Juglans nigra	black walnut
Populus balsamifera	balsam poplar
Populus tremuloides	aspen
Prunus serotina	black cherry
Quercus alba	white oak
Quercus macrocarpa	bur oak
Quercus rubra	northern red oak
Quercus ellipsoidalis	northern pin oak
Tilia americana	basswood (American linden)

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