NRCS Natural Resources Conservation Service

# Early Successional Habitat Development/Management - Early Successional Forest

## *Massachusetts Conservation Practice Job Sheet MA-647*

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|---|---|---|
| **Client Name**: | **Farm #**: | **Tract #:** |
| **Field(s):** | **Total Acres:** | |
| **Planned By:** | **Date:** | |

## Definition

Create or manage early plant succession to benefit desired wildlife or natural communities.

## Purpose

Increase plant community diversity to provide habitat for shrubland and early successional forest species.

Long term management goal: (*check applicable habitat*)

☐ Early Successional Forest

☐ Timber Regeneration

If a particular species is targeted, please note:

_____

## Specifications

Early successional forest is dominated by regenerating seedling to sapling sized tall growing tree species. It typically occurs near field edges or in areas where disturbances such as wind storms, fire or timber harvests have removed trees.

Early successional forest is usually created by mechanically clearing a forest, although prescribed fire and/or herbicides can also be used. A flush of growth of shade intolerant tree species follows. To ensure that shading doesn't hinder regeneration, 75 to 90% of the overstory canopy must be removed. Woody material cut during reclamation shall be used to create adequate amounts of coarse woody debris, when necessary. The remainder shall be either: (a) chipped and spread no deeper than 3.5 inches across the site, (b) removed from site, or (c) stacked in piles and burned. If desired, and within black bear territory, woody material can be used to create bear dens. Tops can be retained on site if placed in brush piles. No slash shall be placed within 50 feet of any drainage course or wetland.

**Coarse woody debris** - Coarse woody debris is a critical element of managing for biodiversity and adequate amounts shall be retained and/or created when creating early successional forest, especially in conjunction with a timber harvest. A minimum of 2 cords (256 cubic feet) of coarse woody debris per acre and 6 to 12 wildlife reserve trees per acre should remain on site after the initial cut. To preserve coarse woody debris, avoid having equipment disturb pre-existing large downed logs, stumps and up-rooted stumps. When creating coarse woody debris, use the following guidelines: 1) large pieces are more valuable than smaller pieces (i.e., min 6-inch diameter by 6 feet long), 2) "bark on" is preferred to "bark off", 3) dispersed coarse woody debris is preferred over large accumulations (although some wildlife piles are good).

To help visualize what 2 cords of coarse woody debris per acre looks like, this would equate to approximately 84 logs, 6-ft long x 6-in diameter, per acre or 51 logs, 6-ft long x 10-in diameter, per acre or 42 logs, 6 ft long x 12-in diameter, per acre.

**Wildlife reserve trees** - Wildlife reserve trees are another important component of managing for biodiversity. When possible (i.e., they will not impair the regeneration of the early successional forest due to shading), 6 to 12 wildlife reserve trees per acre should remain on site after the initial cut. The wildlife reserve trees can be left scattered throughout the site or left in clumps or islands centered around wetland inclusions or other sensitive sites. Choose larger, wind-firm specimens. Mark all wildlife reserve trees for retention prior to any activities that could cause their removal.

**Definition of Coarse Woody Debris** - includes sound and rotting logs and stumps and other woody material, greater than 3 inches diameter, on the forest floor.

**Definitions of Wildlife Reserve Trees**

**Snag** – Includes standing dead, or partially dead trees which are at least 6-inched dbh and 20 feet tall ("stub" if shorter).

**Den Tree** – A live or dead tree of any diameter containing a natural cavity or exfoliating bark used by wildlife for nesting, brood rearing, hibernating, roosting, daily or seasonal shelter and escape.

**Mast Tree** – Species which provide nuts and/or fruit.

**Nest Tree** – Trees containing large nests (2-3 feet diameter) built by crows and hawks that resemble a platform of sticks when viewed from the ground. These may be used by owls or re-used by hawks.

**Exotic invasive plant species** – If non-native invasive plant species are present in an area planned for an early successional forest cut, they must be controlled because the increased sunlight could dramatically increase their growth/abundance. If the site is easily traversed, it's better to treat the site prior to cutting. If the vegetation is too dense to walk through, it's better to do the early successional cut and treat the invasive species re-sprouts at a later time.

**Timing of Activities** - All restoration/management activities should be conducted outside of the primary nesting season (April 15 to August 1) whenever possible.

Establishment is planned as follows: (*check all that apply*)

☐ **Mechanical clearing** _____ Acres Years_____ _____ _____ _____ _____

☐ **Herbicide treatment** _____ Acres Years _____ _____ _____ _____ _____

☐ **Invasive species control** _____ Acres Years _____ _____ _____ _____ _____

☐ **Other**_____ _____ Acres Years _____ _____ _____ _____ _____

## Maintenance

Many of the wildlife species dependent on early successional forest habitat have specific habitat needs (i.e., require a certain stage of succession) and their numbers decline as succession continues. To ensure that some portion of forest provides early successional woody habitat, staggered cuts conducted on a rotational basis should be considered. Maintenance practices should be conducted outside of the nesting season (April 15 to August 1) whenever possible.

Maintenance is planned as follows: (*check all that apply*)

☐ **Mechanical clearing** _____ Acres Years_____ _____ _____ _____ _____

☐ **Herbicide treatment** _____ Acres Years _____ _____ _____ _____ _____

☐ **Invasive species control** _____ Acres Years _____ _____ _____ _____ _____

☐ **Other**_____ _____ Acres Years _____ _____ _____ _____ _____

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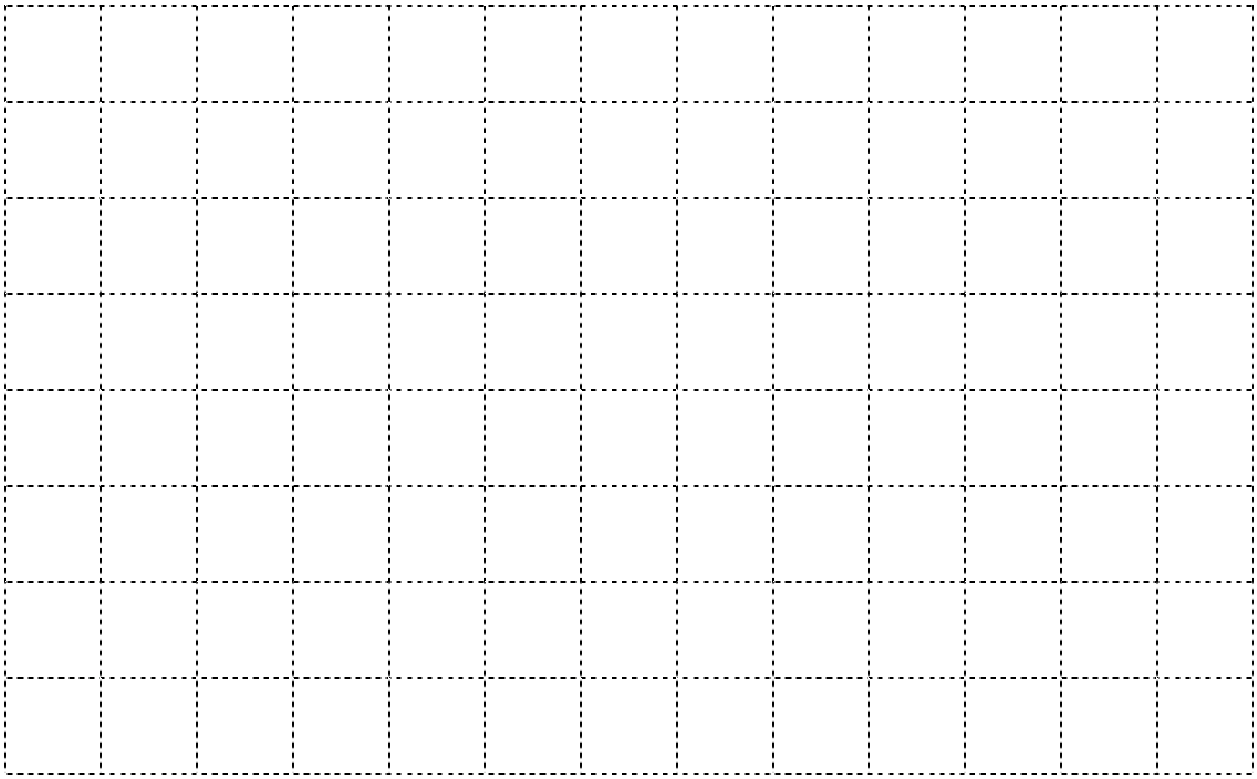
Provide a map (may be attached) showing the location of the proposed practice and practice components.

Scale 1"=_____ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



## Site Specific Comments and Recommendations