

Early Successional Habitat Development & Management for American Woodcock

Maine Conservation Practice Job Sheet

ME-647



AMERICAN WOODCOCK (Photo by Tim Flanigan)

Definition

To create or manage plant succession to benefit desired wildlife using early successional habitat for all or a part of their life cycle.

Purpose

To provide habitat elements needed to improve populations of American woodcock. Woodcock need specific habitats for **courtship**, **feeding** and **diurnal protection**, **nesting**, and **nocturnal roosting**.

In addition to the American woodcock, fifty-six other vertebrate species have been identified by New England states as Species of Greatest Conservation Need that require young forest and shrubland habitats of both deciduous and coniferous forest types for survival.

Description

Quality woodcock habitat mosaics are a combination of dense hardwood cover on fertile soils, with an abundance of earthworms, interspersed with both large and small openings. A farmland-hardwood forest mix is an ideal location to consider managing for woodcock. Birch (*Betula spp.*), aspen (*Populus spp.*), alder (*Alnus rugosa*), hawthorne (*Crataegus spp.*), and dogwood (*Cornus spp.*) provide the cover stem densities preferred by this species.

- **Courtship areas:** Male woodcock return to breeding ranges in early spring and immediately occupy courtship territories, usually referred to as "singing grounds". These are ½ acre or larger, sparsely vegetated openings. Male woodcock perform courtship activities in a variety of openings

such as clearcuts, log landings, natural openings, pastures, cultivated fields and reverting agricultural fields. The quality of singing grounds is influenced by the proximity of nesting and brood-rearing habitat. Singing grounds are usually close to diurnal cover.

Singing ground (Toby Alexander, VT NRCS)



- **Feeding Areas and diurnal habitat:** A wide variety of plant species may comprise suitable diurnal habitat, but important indicators of good habitat are dense young forests and shrublands that protect woodcock during the day and while foraging for their primary prey, earthworms. Woody stem density should be at least 10,000 stems per acre. The abundance of earthworms is a critical determinant of woodcock use of a site.

Feeding area and diurnal habitat (Gary Donovan)



Feeding area adjacent to roosting area (Dan McAuley USGS)



- **Nesting cover:** The woodcock nest is a shallow depression lined with a few leaves and may contain up to 4 eggs. Most nests are in young second-growth hardwood stands that are near feeding areas and/or singing grounds. Nesting cover may also serve as diurnal feeding cover. The woody stem density of nesting areas should be at least 6000 stems per acre.

Nesting area (Gary Donovan)



- **Nocturnal roosting areas:** Five acre or larger sparsely vegetated openings which are open enough for woodcock to detect ground predators while also affording scattered overhead protection from avian predators are preferred.

Reverting old field with mowed strips (Gary Donovan)



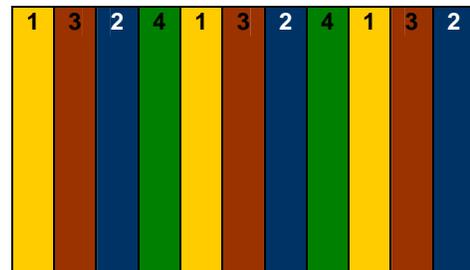
Examples include clearcuts, abandoned agricultural fields, pastures, and blueberry barrens. On smaller openings of 3 – 5 acres, it would be advantageous to have a tapered or “feathered” edge of small trees and shrubs rather than a hard edge of tall trees.

Habitat Management

- **Upland diurnal foraging and nesting habitat:** A 5 acre or more block cutting sequence is recommended (see below). For commercial management of aspen, clearcutting cycles should be 10-15 years for a 40 to 60-year rotation. Forest types with a basal area of at least 30 ft² of aspen per acre are preferred. In the first year of management all blocks numbered 1 are clearcut. Ten to fifteen years following the harvest of blocks numbered 1, the blocks numbered 2 should be harvested and so on. An ideal location for courtship areas is where the four size classes intersect.

1	3	4	2
4	2	1	3
1	3	4	2
4	2	1	3

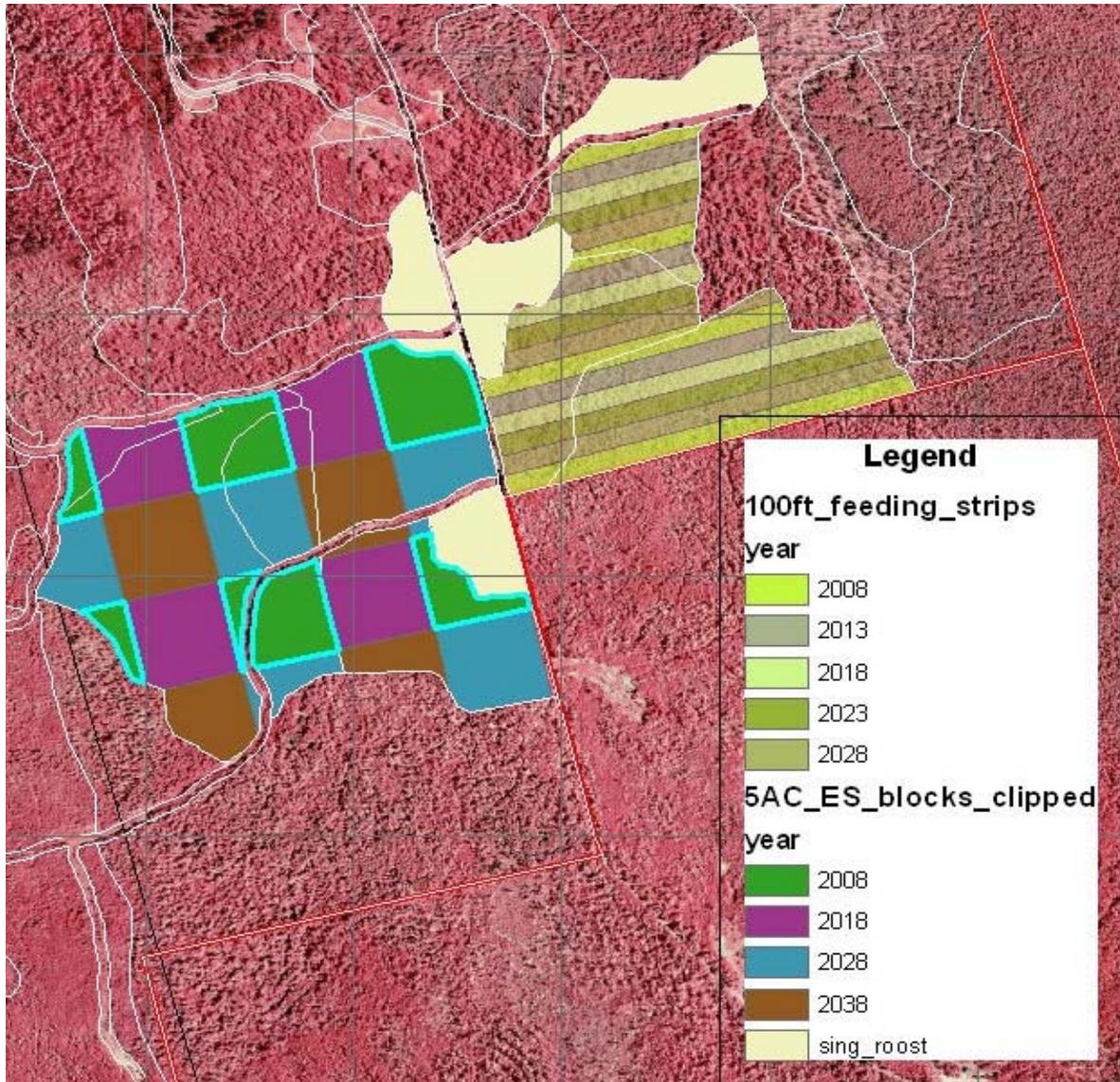
- **Alder feeding areas:** Recommended for alder stands are 70 to 100 foot wide strip cuts on a 5-year cutting cycle and a 20-year rotation. In the first year of management, all strips numbered 1 are clearcut; five years later all strips numbered 2 are cut; ten years from beginning of management strips numbered 3 are cut; and in year 15, strips numbered 4 are cut. The rotation begins again at strips numbered 1 in year 20.



- **Courtship habitat:** These areas need regular management such as brush hogging to maintain the open conditions required for woodcock courtship displays.
- **Nocturnal roosting habitat:** Manage the site to maintain areas of bare ground or low herbaceous and woody growth through disturbance such as mowing strips in fields, disking. Burning or grazing. In forests, the habitat can be supplied in the short term when cutting blocks for upland diurnal and nesting habitat. Note that sites with thick, lush vegetation (e.g. hayfields) are seldom used.

- Integrating habitat components:** Courtship, diurnal-foraging, and nesting habitat should be adjacent or within 1 mile of each other. Roosting habitat should be within 2 miles of other components. A habitat prescription on land owned

and managed by the Maine Department of Inland Fisheries and Wildlife (MDIFW) is provided below (Prepared by Ryan B. Robicheau, MDIFW wildlife biologist and forester).



Operation and maintenance

An action or actions needed to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance).

Specifications

Site-specific requirements are listed on the following specifications sheet. Specifications are prepared in accordance with the ME NRCS Field Office Technical Guide. See practice standard *Early Successional Habitat Development and Management*, code 647.

Early Successional Woodcock Habitat Development and Management for American Woodcock - Specification Sheet

For:	Farm #:
County:	Tract #:
Designed By:	NRCS Job Authority Approval By:
Date:	Signature:

Management Goals/Objectives:
To create or manage plant succession to provide the necessary habitat elements needed to improve populations of American woodcock. See the sketch on the following page or your conservation plan map for locations of the management activities described below.

Courtship Areas			
Fields	Type of Management ¹	Management Frequency ²	Acres
Notes (e.g., type of treatment and additional details as needed, refer to any attached NRCS technical notes, etc.):			

- ¹ – Courtship Area openings are ½ to 2 acre openings (e.g., log landings, blueberry fields, small hay fields, reverting farmland, reclaimed gravel pits). Recommend 8 courtship areas per 100 acres of woodcock nesting and diurnal habitat.
- ² – Prescribed grazing and mechanical disturbances should occur after ground nesting season.

Nesting Cover ¹			
Field(s)	Type of Forest Structure ¹	Treatment	Acres
Notes (e.g., type of treatment and additional details as needed, refer to any attached NRCS technical notes, etc.):			

- ¹ – Nesting Cover is young (seedling, sapling and small pole sized) hardwood types and shrublands 1 to 5+ acres in size with 6000 stems per acre or more. Nesting cover should be adjacent or near (within 1 mile) courtship areas.

Feeding Areas and Diurnal Habitat			
Field(s)	Type of Forest Structure ¹	Treatment	Acres ²
Notes (e.g., type of treatment and additional details as needed, refer to any attached NRCS technical notes, etc.):			

- ¹ – Feeding Areas and diurnal habitat are areas of moist rich soils with abundant earthworms in young deciduous sapling size stands and shrublands with 10,000 stems per acre or more. Abandoned farmland, overtopped apple orchards, riparian ecotones, and Palustrine forested types from the National Wetland Inventory are excellent sites. Preferred forest types are quaking/big tooth aspen, alder, willow, gray/white birch, and pin cherry.
- ² – This woodcock habitat element should be 5 or more acres in size.

Nocturnal Roosting Area ¹			
Field(s)	Type of Forest/Agriculture Structure ²	Treatment	Acres ³
Notes (e.g., type of treatment and additional details as needed, refer to any attached NRCS technical notes, etc.):			

- ¹ – Nocturnal roosting areas are openings with light ground cover, patches void of vegetation, clump grasses/forbs, and scattered small shrubs and trees less than 4 feet in height.
- ² – Look for pastures with light to moderate grazing, recent clearcuts with log landings, newly established or herbicide-release tree plantations, revegetated gravel pits, blueberry fields/barrens, or recently abandoned nutrient poor farmland.
- ³ – Roosting areas can be as small as 3 acres but the preferred size is 5 acres or greater.

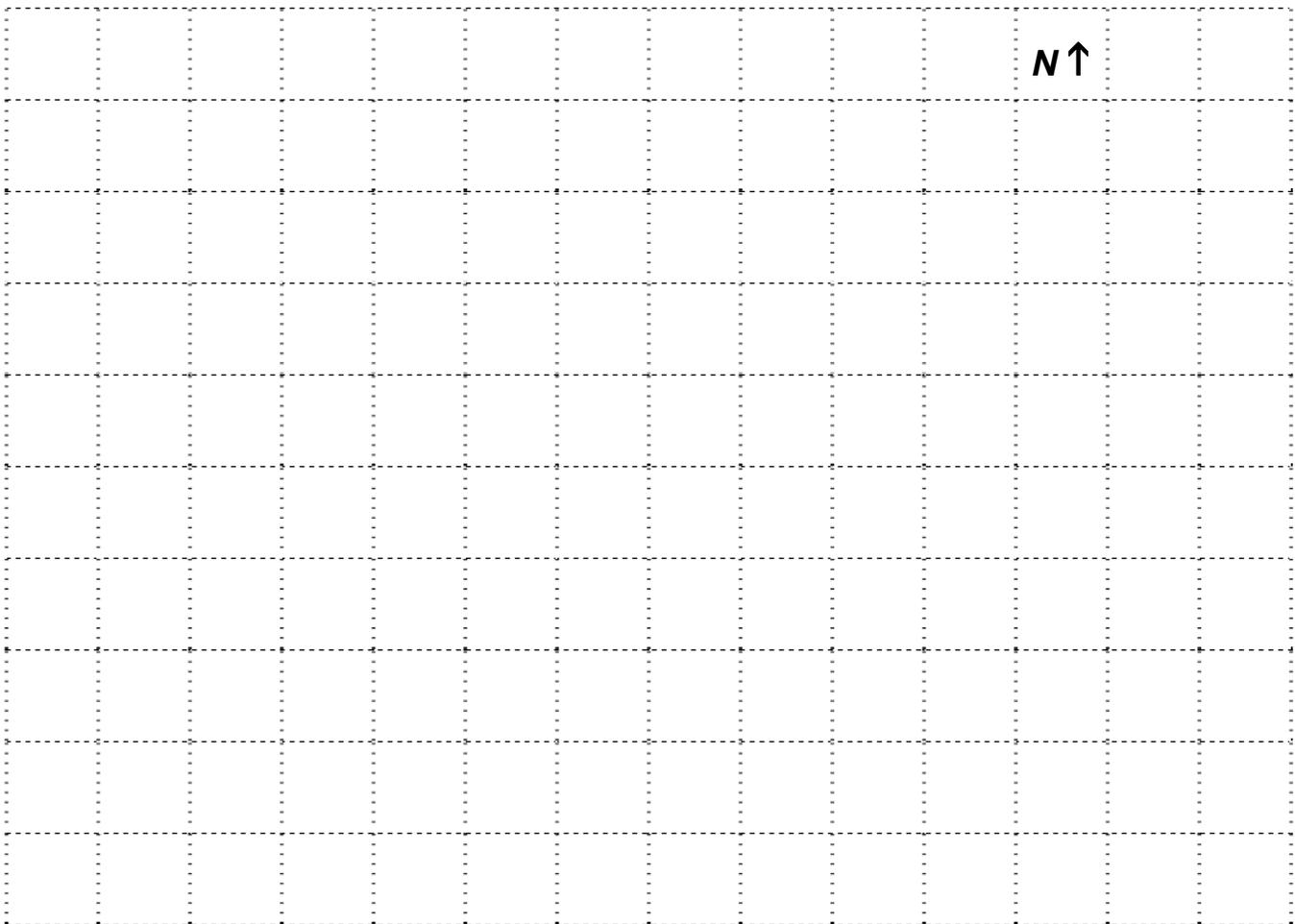
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Additional Specifications (required):

Operation and Maintenance (required):

If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional as-built diagrams, planting specifications, etc., may be attached.

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



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