NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

UPLAND WILDLIFE HABITAT MANAGEMENT

(Ac.)

CODE 645

DEFINITION

Provide and manage upland habitats and connectivity within the landscape for wildlife.

PURPOSE

To treat upland wildlife habitat concerns identified during the conservation planning process that enable movement, or provide shelter, cover and food in proper amounts, locations and times to sustain wild animals that inhabit uplands during a portion of their life cycle.

CONDITIONS WHERE PRACTICE APPLIES

- Land where the decision maker has identified an objective for conserving wild animals and/or for enhancing habitat or ecosystems to benefit wildlife.
- Land within the range of targeted wildlife species and capable of supporting the desired habitat.

CRITERIA

General Criteria Applicable to all Purposes

A habitat evaluation or appraisal, approved by the NRCS state office, shall be used to identify habitat-limiting factors in the planning area.

Application of this practice shall remove or reduce limiting factor(s) in their order of significance, as indicated by results of the habitat evaluation.

Application of this practice alone, or in combination with other supporting and facilitating practices, shall result in a conservation system that will enable the planning area to meet or exceed the minimum quality criteria for wildlife habitat established in Section III of the FOTG.

Establish additional criteria for components of this practice including, but not limited to:

- vegetation establishment for shelter, food and to enable movement;
- structural measures to provide shelter, food or enable movement; and,
- manipulation of vegetation to sustain desirable habitat conditions over time.

Plant material specifications shall include only high quality and adapted species.

Planting of noxious weeds and invasive species is prohibited.

Site preparation, planting dates, and planting methods shall optimize vegetation survival and growth.

Locate food and cover to maximize access by target species, minimize their predation, and to minimize impacts to sensitive or protected habitats.

Buffers to enhance water quality and wildlife cover (e.g., herbaceous, shrubby, treed areas, etc.) must meet or exceed Maine NRCS' wildlife habitat evaluation procedure (WHEP) criteria, or other approved habitat assessment procedures.

Meet or exceed state recommended best management practices.

All management will be conducted in time and space and using methods to minimize negative impacts to wildlife or their habitat.

- Equipment travel, grazing, haying and other disturbance to habitat shall be restricted during critical periods such as wildlife nesting, brood rearing, fawning or calving seasons.
- States may establish exceptions when

disturbance is necessary to restore and maintain the health of plant communities (e.g., control of invasive exotic plants).

Control of regulated noxious weeds and invasive plants shall be specified. Chemical control will use targeted, precision pesticide/herbicide applications to minimize over-spray and will be applied according to NRCS practice standard *Pest Management*, code 595.

Peer-reviewed habitat management guidelines developed for New England, Maine's wildlife and habitat in particular, will be used where available.

Minimize soil disturbance in natural communities where soil integrity is essential, on steep slopes (> 8%), on highly erodible land, and where invasion of noxious species is likely.

Avoid and minimize soil compaction.

All activities planned under this practice shall comply with applicable federal, tribal, state, and local laws, rules and regulations.

Criteria Applicable to Forestland

Forest communities which naturally exhibit high species diversity and/or structural diversity (e.g., multiple foliage layers), are to be managed using sustainable forestry silvicultural techniques to create, retain or enhance stand or landscape scale forest biodiversity. Diameter limited cutting leading to high-grading is not a sustainable forestry technique.

When heavy equipment is involved, conduct harvest operations during appropriate times and with equipment that minimizes deleterious effects to the soil and forest floor.

During harvests do not encircle and isolate vernal pools, ponds, wetlands, deer wintering areas, or other protected or high value habitat.

Do not deposit forest harvest debris in vernal pools, streams, rivers or wetlands.

Do not install stream crossings when there are other viable, economical alternatives to gain stand access.

Criteria Applicable to Hay or Pastureland

The timing, extent and form of haying and grazing will be managed to retain, establish or enhance plant species composition, vigor, palatability, quality, and structure in a manner beneficial to target wildlife.

Exclude livestock from sensitive and important ecological sites which includes, but is not limited to: permanent or ephemeral wetlands, seeps, springs, watercourses, water bodies, riparian and shoreline zones, rare or exemplary natural community.

Rotational flash grazing may be allowed in some of the above habitats on a site specific basis to achieve a clearly defined habitat management or restoration objective.

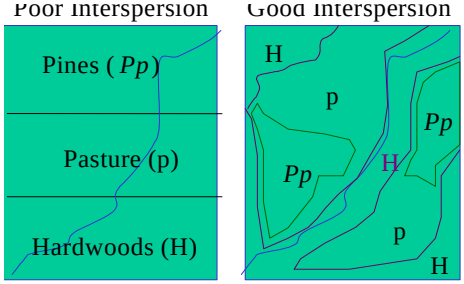
Haying will not occur at dawn, dusk or night, and equipment will not travel concentrically from outside field edges inward.

CONSIDERATIONS

All land use and land management impact wildlife, including wildlife management; therefore, carefully consider the direct, indirect and cumulative affects of management decisions on species guilds. For example, this practice may affect target species as well as non-target species though mechanisms such as hunting, predation, disease transmission, nest parasitism, etc.

Generally the number of species present in a given area (a.k.a., species richness) is positively correlated with horizontal interspersion (Fig. 1), and vertical structural diversity of habitat.

Fig. 1. Horizontal Interspersion



Conversely, species that are habitat specialists often have very specific, narrow habitat requirements. Many species in decline and protected species are habitat specialists.

Consider the problems of habitat fragmentation when using this practice. Undisturbed areas conserved at a sufficient amounts, may sustain disturbance-intolerant animals and plants.

Consider prioritizing or focusing management on "umbrella" or "indicator" species, or species or habitats that provide important ecological services. (1) Umbrella species (e.g., American

marten, Canada lynx, American woodcock) are animals for focused management will provide benefits to a wide range of co-existing species which may be lesser known. (2) Indicator species are those whose status provides an assessment of environmental conditions, due to their sensitivity to change. These species are analogous to “canaries in coal mines”. (3) Ecological services may be in the form of animals, plants or habitats that pollinate crops and fruits, control animal and crop pests, provide stable food supplies among trophic levels, and habitats that reduce flood and storm water damage, or improve water quality, etc.

Consider integrated pest management for pest control to minimize impacts to non-target species.

Consider management beneficial to native pollinators during planning.

Consider planting of native species or their regeneration over planting of non-native species.

Use of locally adapted native plant material genotypes should take precedence over use of non-local genotypes.

Supplemental feeding and food plot establishment and management is expensive, time consuming, and should be minimize when management of natural communities is an alternative.

In general, wider hedgerows, corridors, buffers, filter strips, etc., provide greater benefit for wildlife. Narrow habitat strips and strips with irregular borders tend to increase predator success against early successional species.

Consider aggressive forest thinning proximal to other land uses to produce a gradual transition or “feathered edge”.

Consider the use of temporary stream crossing structures that can be removed after management activities are concluded.

For forest operations consider winter or temporary roads and trails for stand access, rather than permanent roads and trails.

Consider seasonal road or trail closures on non-essential roads during high movement periods (e.g., breeding, nesting, dispersal periods). Where essential habitat structural features are lacking (e.g., cavity trees, large woody debris, snag trees, etc.), consider artificial nesting structures, brush piles, creation of snag trees, etc.

Careful construction and placement of structural habitat features will enhance their acceptance and use by target wildlife.

Wildlife habitat quality and resultant animal health is directly related to soil quality. To maximize benefits and outcomes consider directing wildlife habitat enhancements toward productive areas rather than “wasteland”.

Wildlife population control may be necessary to protect and maintain certain habitats. Control is a responsibility of the landowner. State and federal regulations may apply to population control methods.

Consider rotational flash grazing as a management tool to control invasive species, species composition and seral stage.

Wildlife management is an art as much as it is a science; therefore, well-conceived experimentation on a small scale is often warranted.

PLANS AND SPECIFICATIONS

NRCS shall ensure that plans and specifications for this practice are prepared by persons with adequate training in the fields of wildlife management, biology or ecology.

This practice can involve many components that include, but are not limited to: **plantings** of trees, shrubs, grass, herbs and forbs, and wildflowers; **structures** for nesting, denning, colony establishment; protective cover; and **management** to restore or enhance habitat.

Maine specifications developed for this practice standard, other appropriate supporting and facilitating NRCS practice standards, provided in reference material, or other sources approved by the NRCS state office may be used.

Written specifications, schedules and maps shall be prepared for each planning area and each habitat type. Specifications shall:

- Identify the amounts and kinds habitat elements, locations and management actions necessary to achieve the management objectives.
- Describe the appropriate method, timing and intensity of management needed to produce the desired habitat conditions and sustain them over time.

Specifications shall be transmitted to clients using NRCS approved specifications sheets, job sheets, customized narrative statements included in the conservation plan, or other written means of sufficient detail to properly establish, manage and maintain the practice.

OPERATION AND MAINTENANCE

The following actions shall be carried out to ensure that this practice functions as intended throughout its expected life:

- Evaluate habitat conditions on a regular basis in order to adapt the conservation plan and schedule of implementation.
- Annually inspect and repair structural or vegetative components of this practice.
- Site specific operation and maintenance requirements will be developed to assure performance of the practice as intended.

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Conservation practice standards are reviewed periodically and updated. To obtain the current version of this standard, visit the electronic Field Office Technical Guide; contact Jeff Norment, NRCS Biologist, at 207-990-9571 or jeff.norment@me.usda.gov, with questions or comments.

NRCS, ME
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