United States Department of Agriculture

Notice of Proposed Changes to the National Handbook of Conservation Practices for the Natural Resources Conservation Service

[Docket No.]
PROPOSED FULL TEXT FOR PRACTICE STANDARD CODE 645

Natural Resources Conservation Service

CONSERVATION PRACTICE STANDARD

~~UPLAND~~ WILDLIFE HABITAT MANAGEMENT

CODE 645

(ac)

DEFINITION

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

Manipulating habitat to benefit target non-domesticated and non-feral vertebrate or invertebrate animal species.

PURPOSE

This practice is used to ~~accomplish one~~maintain or ~~more of the following purposes:~~

~~Treating upland wildlife~~improve existing habitat ~~concerns~~by addressing identified ~~during the conservation planning process that enable movement, or provide~~ limiting factors (e.g., the availability, quality and distribution of food, cover, shelter, ~~cover, food in proper amounts, locations and times to sustain wild animals that inhabit uplands during a portion of their life cycle~~etc.), improving connectivity of available habitat, or reducing stressors for the target species, guild, suite, habitat or ecosystem by:

- Manipulating the vegetation to alter plant species diversity, composition, structural diversity, etc.
- Annually planting to provide food or cover.
- Altering the timing or manner of planting and harvesting of crops.
- Altering the timing or manner of management and maintenance of existing agricultural systems.

CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on all lands~~Land~~ where ~~the decision maker has identified an~~

~~objective for~~ conserving a wild animal species, guild, suite, habitat or ecosystem is an objective.

~~Land within the range of targeted wildlife species and~~The planning unit must be capable of supporting the conservation objective of the desired ~~habitat~~targeted wildlife species.

This practice is not intended to be used as site preparation for planting or to control undesirable vegetation. When manipulating vegetation, targeted application of planned disturbances are implemented to promote a desired plant community.

This practice does not substitute or replace —

- CPS Wildlife Habitat Planting (Code 420), Hedgerow Planting (Code 422), or Riparian Herbaceous Cover (Code 390) utilized to establish perennial or persistent wildlife habitat.
- CPS Wetland Restoration (Code 657), CPS Wetland Creation (Code 658), or CPS Wetland Enhancement (Code 659) utilized to restore, create, or enhance wetland functions.
- CPS Prescribed Grazing (Code 528) when livestock grazing is used as a management tool to improve or maintain the quantity, quality, or connectivity of food and/or cover available for wildlife.
- CPS Prescribed Burning (Code 338) utilizing fire to improve habitat for wildlife and invertebrates.
- CPS Seasonal Water Management For Wildlife (Code 646), implemented to provide seasonal inundation of lands with water to provide specific life cycle needs for fish or wildlife.
- CPS Brush Management (Code 314) or Herbaceous Weed Treatment (Code 315) intended for the management, removal, or control of undesirable vegetation, including noxious or invasive species.
- CPS Structures for Wildlife (Code 649) which include installed structures designed to provide loafing, escape, nesting, rearing, roosting, perching and/or basking habitat (e.g., nesting islands, nesting boxes, roosting boxes, rock piles, perching structures and brush piles).
- CPS Forage Harvest Management (Code 511) for the harvest management of forage crops to improve or protect wildlife and their habitat.
- CPS Dike and Levee (Code 356), Structure for Water Control (Code 587), or Pond (Code 378) used to impound, control, or store water.

CRITERIA

General Criteria Applicable to All Purposes

~~A habitat~~

Apply an evaluation or ~~appraisal,~~NRCS State approved ~~by the NRCS state office, shall be used~~assessment (e.g., Wildlife Habitat Evaluation Guide) to identify ~~habitat~~ limiting factors ~~in~~or stressors to wildlife within the planning ~~area~~unit.

~~Application of~~Apply this practice ~~shall~~to remove or reduce identified limiting factor(s) ~~in their order of significance, as indicated by results of~~or stressors related to the habitat ~~evaluation~~of the target species or guild.

~~Application of~~Apply 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 planning 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~~to maintain or improve habitat conditions ~~over time~~that meet or exceed state-established criteria thresholds.

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

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

~~Equipment travel, grazing, haying and other disturbance~~Time management actions to minimize negative impacts to ~~habitat shall be restricted during~~wildlife and their habitat. Restrict such activities to times outside of the state-recognized critical periods ~~such as~~as defined in the state-approved assessments or guidance (e.g., wildlife nesting, brood rearing, fawning or calving seasons~~. States may establish exceptions when certain disturbance causing activities are necessary to maintain the health of~~) unless the state approved assessment indicates that long term benefits outweigh any short-term impacts of the action.

Link monitoring activities to adaptive management actions that alter the ~~plant community and control noxious weeds~~timing or the manner of application of agricultural or habitat management activities to avoid impacts to target wildlife or to improve habitat response to wildlife habitat management actions.

~~Control of regulated noxious weeds and invasive plants shall be specified.~~

Complete monitoring activities in accordance with, and as required by, state developed monitoring protocols. Describe monitoring objectives and activities in detail in the specifications or implementation requirements.

Additional Criteria When Manipulating the Vegetation to Alter Plant Species Diversity, Composition, Structural Diversity, Etc. -

Manipulate the entire planning unit (e.g., - discing or mowing) or treat individual plants (e.g., - spot spraying) to improve the vegetative conditions for the target species or guilds.

Additional Criteria for Annual Planting to Provide Food or Cover

Implement planting with respect to season of use, life history, home range, condition of adjacent habitats, and landscape context for targeted wildlife.

Plant materials will meet state quality standards and be included on a state developed list.

Seeding rates shall comply with state approved calculators, tables, etc. that account for habitat needs as a purpose for planting.

Annual plantings established under this practice standard will not be harvested. Apply nutrients and other soil amendments as needed for establishment.

Implement all necessary vegetative establishment protocols such as seed bed preparation, weed and pest control, planting rates, planting dates, planting methods, cold storage, legume

inoculation, irrigation and plant material care.

Additional Criteria When Altering the Timing or Manner of Planting and Harvesting Crops

Delay, forgo, or alter the manner of planting or harvest to address an identified habitat limiting factor, remove an identified stressor or improve habitat connectivity.

This practice is not a substitute for planned crop rotations but will instead enhance the system for the purpose of benefiting desired wildlife species.

Identify alterations to planting and harvest actions in advance of planting annual crops.

Additional Criteria When Altering the Timing or Manner of Management and Maintenance of Existing Agricultural Systems

Adjustments to management systems for this purpose should not compromise the function of other conservation practices.

CONSIDERATIONS

The nutrient and pesticide tolerance of the target wildlife species should be considered where nutrient and pesticide use are occurring on lands adjacent to the planning unit.

Minimize soil disturbance in natural plant communities where soil integrity is essential to the long-term success of the plant community, on steep slopes, on highly erodible soil, and where establishment of invasive species is likely. Adjust timing and method of disturbance as a means to control unwanted vegetation.

The improved habitat that results from the installation of this practice may lead to increased crop depredation on surrounding cropland.

Certain habitats need to be managed more intensively. Consider conditions that may warrant more extensive monitoring of the site.

States should consider migration needs and other critical times for wildlife that are not included in the sensitive wildlife periods under the General Criteria.

This practice may affect the target species as well as non-target species ~~though~~through mechanisms such as hunting, predation, disease transmission, nest parasitism, etc. Consider effects of this practice on species with declining populations.

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

~~Undisturbed~~Conserve undisturbed areas ~~conserved~~ at a sufficient extent during management activities~~, may~~ to sustain disturbance-intolerant animals and plants.

~~Other conservation practices that may be utilized in conjunction with this practice to create a wildlife management plan include:~~

~~Pasture & Hay Planting~~

~~(512) Wildlife Watering~~

~~Facility (648)~~

~~Early Successional Habitat Development/Management~~

~~(647) Restoration and Management of Rare or Declining~~

~~Habitats (643) Wildlife Habitat Planting (420)~~

~~Structures for Wildlife~~

~~(649) Tree/Shrub~~

~~Establishment (612)~~

~~Range Planting (550)~~

~~Prescribed Grazing (528)~~

~~Prescribed Burning (338)~~

~~Forage Harvest~~

~~Management (511) Use~~

~~Exclusion (472)~~

~~Riparian Forest Buffer~~

~~(391) Riparian~~

~~Herbaceous Cover (390)~~

~~Forest Stand~~

~~Improvement (666)~~

The Windows Pesticide Screening Tool (WIN-PST) can be used to assess risks and to determine appropriate mitigation to reduce known risks. Apply pesticides in a targeted manner using spot spraying, mechanical or hand wick applicators, or other approved methods to protect desirable plants that benefit wildlife.

Follow the best available local, state, or regional technical information, such as NRCS Plant Materials Center Guidelines, the NRCS PLANTS database, and Ecological Site Descriptions.

PLANS AND SPECIFICATIONS

Wildlife species~~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.~~

~~Written specifications, schedules and maps shall~~ goals will be ~~prepared for each planning area~~identified. For the desired species, identify the types, amount and ~~each habitat type.~~

~~Specifications shall:~~

~~Identify the amounts and kinds~~distribution of habitat elements~~, locations~~ and the management actions necessary to achieve ~~the client's~~ management objectives.

~~Describe~~ The size, shape, and distribution of required habitat elements for the target species will be identified when evaluating the planning unit for this practice.

The intensity, frequency, and timing of management actions will be planned to address the identified habitat limitations (e.g., food, cover, shelter, etc.) and improve connectivity of available habitat by facilitating the development and maintenance of the plant structure, density, and diversity needed to meet the habitat requirements of the desired wildlife species.

Identify and describe the planning unit, habitat type(s), locations and appropriate method, timing and intensity of management ~~needed~~actions necessary to ~~produce~~achieve the ~~desired habitat conditions~~client's management objectives and ~~sustain them over time~~state-specified criteria.

Practice designs will specify the targeted species, habitat limiting factor(s) addressed, and any supporting practices, as applicable.

Specifications ~~shall~~should be ~~transmitted to clients~~recorded using ~~NRCS~~state approved ~~specifications sheets, job sheets, or~~Implementation Requirements (IRs), customized narrative documentation in the conservation plan, or other acceptable documentation.

When planting annual vegetation, specify the composition, rates, planting depth, and proper handling of plant materials to create desired habitat conditions.

OPERATION AND MAINTENANCE

Actions must~~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~~lifespan. These actions include routine activities in ~~order to adapt~~ the ~~conservation plan~~ application and ~~schedule~~use of ~~implementation.~~

~~Annually inspect~~the practice (operation), and repair ~~structural or vegetative components~~and upkeep of ~~this~~the practice~~.~~ (maintenance).

A plan for operation and maintenance should, at a minimum, include inspection of installed practice components and corrective actions, if needed.

Any use of fertilizers, mechanical treatments, pesticides or other chemicals must not compromise the capability of the practice to provide habitat for the target species.

REFERENCES

Bolen, Eric and William Robinson. 2002. Wildlife Ecology and Management 5th Edition. Prentice Hall, 656 pp.

Bookhout, T.A. (ed.). 1996. Research and Management Techniques for Wildlife and Habitats, 5th Ed. Wildlife Society, 740 pp

GeFellers, J.W., D.A. Buehler, C.E. Moorman, J. M. Zobel, C.A. Harper. 2020. Seeding is not always necessary to restore native early successional plant communities. Restoration Ecology

Vol. 28, No. 6, pp. 1485–1494, Nov.

Harper, C.A. 2007. Strategies for managing early succession habitat for wildlife. Weed Technology 21: 932-937.

Helmers, D.L. 1992. Shorebird management manual. Western Hemisphere Shorebird Reserve Network, Manomet, MA, 58 pp.

McNew, L.B., D.K. Dahlgren, J.L. Beck. 2023. Rangeland Wildlife Ecology and Conservation. Springer, 1023 pp.

Payne, Neil F. 1992. Techniques for wildlife habitat management of wetlands. McGraw-Hill, Inc. 549 pp. Rayne, Neil F. and Fred C. Bryant. 1994. Techniques for Wildlife Habitat Management of Uplands. McGraw-Hill, Inc., 841 pp.

Silvey, N.J. (ed~~.), 2012~~.). 2020. The Wildlife Techniques Manual; Research ~~7th~~8th Edition, Volume 1. The Johns Hopkins University Press~~, 686 pp~~.

Silvey, N.J. (ed~~.), 2012~~.). 2020. The Wildlife Techniques Manual; Management ~~7th~~8th Edition, ~~Volum~~Volume 2. The Johns Hopkins University Press~~, 414~~.

Smith, Loren M. and Roger L. Pederson. 1989. Habitat management for migrating and wintering waterfowl in North America. Texas Tech University Press, 574 pp.

~~United States Department of Agriculture, Natural Resources Conservation Service. National Biology Manual. Title 190, Washington, DC.~~USDA, NRCS. 2024. The PLANTS Database (http://plants.usda.gov, 07/15/2024). National Plant Data Team, Greensboro, NC USA.

~~United States Department of Agriculture, Natural Resources Conservation Service. 2004. National Biology Handbook. Washington, DC.~~