

Draft Compatibility Determination

Draft Compatibility Determination for Cooperative Agriculture, Seed Collection, Haying and Prescribed Grazing for Devils Lake Wetland Management District.

Refuge Use Category

Agriculture, Aquaculture, and Silviculture

Refuge Use Type(s)

Cooperative Agriculture

Seed Collection (Cooperative)

Grazing (Cooperative)

Haying (Cooperative)

Refuge

Devils Lake Wetland Management District

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

System lands are managed consistent with several federal statutes, regulations, policies, and other guidance. The National Wildlife Refuge System Administration Act of 1966, as amended (16 United States Code [U.S.C.] 668dd–668ee) (Administration Act) is the core statute guiding management of the System.

The National Wildlife Refuge System Improvement Act of 1997 (Public Law [P.L.] 105–57) made important amendments to the Administration Act, one of which was the mandate that a comprehensive conservation plan be completed for every unit of the System. Among other things, comprehensive conservation planning has required field stations to assess their current agriculture program and establish objectives for the future.

“Small areas, to be designated as ‘Waterfowl Production Areas’ may be acquired without regard to the limitations and requirements of the Migratory Bird Conservation Act, but all of the provisions of such Act which govern the administration and protection of lands acquired thereunder, except the inviolate sanctuary provisions of such Act, shall be applicable to areas acquired pursuant to this subsection.”

Migratory Bird Hunting and Conservation Stamp Act (16 U.S.C. 718[c])

“For use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

Migratory Bird Conservation Act (16 U.S.C. 715d[2])

“Areas of lands, waters, or interests therein acquired or reserved pursuant to this subchapter shall...be administered...to conserve and protect migratory birds in accordance with treaty obligations with Mexico, Canada, Japan, and the Union of Soviet Socialist Republics, and other species of wildlife found thereon, including species that are listed...as endangered or threatened species, and to restore and develop adequate wildlife habitat.”

Migratory Bird Conservation Act (16 U.S.C. 715i[a])

Additional authorities include the following: North American Wetlands Conservation Act, and the Emergency Wetlands Resources Act.

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System, otherwise known as Refuge System, is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

Yes

This compatibility determination reviews and replaces the CD for Grazing, Haying and Cooperative Agriculture in the CCP dated 09/30/2008.

What is the use?

Cooperative Agriculture:

Agriculture (Cooperative) – cropping activities for habitat restoration and management purposes on lands owned in fee title or managed through agreement by the National Wildlife Refuge System.

Seed Collection (Cooperative) – native grass and forb seed collection/harvest for habitat restoration and management purposes on lands owned in fee title or managed through agreement by the National Wildlife Refuge System.

Grazing (Cooperative) – prescribed grazing for habitat restoration and management purposes on lands owned in fee title or managed through agreement by the National Wildlife Refuge System.

Haying (Cooperative) – cutting and removal of vegetation for habitat restoration and management purposes on lands owned in fee title or managed through agreement by

the National Wildlife Refuge System.

The resultant hay will be used for livestock feed.

Is the use a priority public use?

No

Where would the use be conducted?

The Devils Lake Wetland Management District (District) covers eight counties in northeastern North Dakota and helps protect more than 258,000 acres of wetland and grassland habitat. The management responsibilities of the District include Fish and Wildlife Service (Service) owned National Wildlife Refuges and waterfowl production areas. The District lands and waters benefit numerous migratory birds and resident wildlife and a variety of management tactics are used. Cooperators will conduct Cooperative Agriculture, Grazing, Haying, and Seed Collection within the District, however, not all these acres are suitable for those uses as a management tool.

When would the use be conducted?

Agriculture - Activities related to agriculture (field preparation, planting, weed control, harvesting) take place from April 1 to November 30. Activities would take place 1-10 days a month during the growing season depending on size and complexity of the field and goals of the unit.

Seed Collection - Primarily occurs in the fall when seeds have matured over 1-7 days. The exact timing of collection will depend on the physiology of the target species.

Grazing - Primarily occurs from April through September. The frequency and duration of grazing will be based on site-specific evaluations of the grassland under management and utilize the best available biological data.

Haying - Primarily occurs from August through September. The frequency and duration of haying will be based on specific evaluations of the site under management and utilize the best available biological data. Haying activities will take 1-14 days per field.

How would the use be conducted?

These practices are only authorized when prescribed in plans developed to achieve habitat management objectives or refuge purposes. Agriculture, grazing, and haying will be administered under a Cooperative Agricultural Agreement (CAA) permit. This allows a person or entity to use agricultural practices on National Wildlife Refuge System lands in support of refuge management objectives.

A CAA will include a Commercial Special Use Permit and a Plan of Operations that details operation requirements. When substantial involvement between the Service and the agricultural cooperator is anticipated, a CAA includes significant collaboration with communication on a regular basis, including monthly status

updates and annual reviews.

Agriculture agreements will include the crop(s), location, and number of acreage to be planted. Agreements will be short-term, typically three to four years or less. Cooperative Agriculture will require the use of tractors, combines, implements and grain trucks to plant, treat weeds and harvest crops. The cooperator is responsible for all equipment, fuel, seed, fertilizer, chemical and labor.

Seed Collection agreements and permits will outline the target species and dates for collection. Equipment utilized will include combines or tractors, ATVs and implements and multiple pieces of equipment may be in the field while completing the collection. The cooperator is responsible for all equipment and labor.

Grazing agreements will include location, Animal Unit Month (AUM), dates, and specific guidelines related to grazing. The AUM per unit will be dependent on unit size, animal type, and type of forage available and management goals. Grazing units will be appropriately fenced. Watering facilities may not be present and may need to be installed or have water delivered daily. The use of mineral blocks may be used to supplement and distribute animals throughout the unit. Fence construction and maintenance and control and rotation of livestock are the responsibility of the cooperator.

Haying agreements will include the location, dates, and number of acres to be hayed. Equipment utilized will include a tractor and various implements (mower, rakes, baler and forks) and a truck and trailer to remove bales. Grass will be mowed at the appropriate time to meet unit objectives and removed by the date set in the agreement.

Why is this use being proposed or reevaluated?

Reevaluation is due per policy 603 FW 2.11 H(2). Except for uses specifically authorized for a period longer than 10 years (such as rights-of-way), we will reevaluate compatibility determinations for all existing uses other than wildlife-dependent recreational uses when conditions under which the use is permitted change significantly, or if there is significant new information regarding the effects of the use, or at least every 10 years, whichever is earlier. A refuge manager can reevaluate the compatibility of a use at any time.

Cooperative agricultural practices for wildlife and restoration of habitat on refuge lands include grazing, haying, agriculture, and seed collection. These management activities are used to meet refuge goals and objectives that typically benefit grassland health and restore poor-quality habitat for migratory birds, pollinators, and other wildlife. Cooperative agriculture is an indispensable management tool to restore the ecological diversity and habitat quality of refuge lands.

Availability of Resources

Staff time is available for the development and administration of cooperative agriculture agreements (CAA). Most of the work to prepare and plan will be done as part of routine habitat management and monitoring duties. Existing refuge staff will monitor the CAAs to ensure compatibility and compliance. The Cooperator is responsible for the equipment, labor, cost of installation and/or maintenance of all range improvements associated with these activities. Facilities installed primarily for Refuge purposes are constructed or maintained at Refuge expense.

Anticipated Impacts of the Use

As defined in the Refuge Improvement Act of 1997, “The terms ‘conserving,’ ‘conservation,’ ‘manage,’ ‘managing,’ and ‘management,’ mean to sustain and, where appropriate, restore and enhance, healthy populations of fish, wildlife, and plants utilizing, in accordance with applicable Federal and State laws, methods and procedures associated with modern scientific resource programs.”

The terms ‘conservation’ and ‘management’ denote active management and contribute to the mission of the Service. Therefore, if an economic use of a natural resource demonstrates ‘conservation’ or ‘management’ as defined by the Act, it meets the standard or threshold established in 50 CFR 29.1. Cooperative uses for agriculture, haying, grazing, and seed collection as described in this compatibility determination and as defined in 50 CFR 29.2, do contribute to the mission, purposes, goals, and objectives of the station.

When threatened and endangered species are known or suspected to be on a site, the proper steps will be taken to determine how management activities will affect that species and the local FWS Ecological Services office will be consulted.

Short-term impacts

Agriculture – In preparing a unit for restoration through cooperative agriculture, all habitat will be removed using a combination of mechanical and chemical methods. Wildlife will be disturbed and displaced initially when the area is prepped, and wildlife will lose the poor-quality cover previously present while the unit is planted.

Field prep, planting, weed control and harvesting will generally only occur a few days per month from April through September. During the remainder of the growing period disturbance will be minimal. Once crops are in the beginning growing stages and then again after harvest, wildlife observations will increase for species such as deer, pheasants, and turkey. Geese and ducks will use harvested fields for food during the fall and spring migration. Some shorebird species will also use the open temporary wetlands during migration.

After harvest, steps will be taken to improve habitat and soil health. Leaving residue standing and not tilling it under or using cover crops can provide food and cover for

over-wintering wildlife and promote soil health. It is Service policy that the long-term productivity of the soil will not be jeopardized to meet wildlife objectives (601 FW3, 569 FW1).

Pesticide use is a normal agriculture practice and can be beneficial when removing targeted undesired species. They also have negative impacts on non-targeted plants and wildlife species. To decrease these effects, only EPA registered pesticides approved through the Service's Pesticide Use Proposal (PUP) System will be used. All pesticide use must follow EPA guidelines and be applied following label guidelines. Application of pesticides must follow the Department of Interior's Pesticide Use policy (517 DM 1) and the Service's Integrated Pest Management Policy (569 FW 1).

All use of genetically modified crops will occur under the guidance of the 2011 Environmental Assessment, "Use of Genetically Modified, Glyphosate-Tolerant Soybeans and Corn on National Wildlife Refuge Lands in the Mountain-Prairie Region." Glyphosate-tolerant soybeans and corn on refuge lands are allowed for the purpose of habitat restoration and management, no other genetic modifications for additional herbicide resistance are authorized.

Seed Collection – Harvesting seed will take place over a couple of days, up to a week on a single unit per year. This activity can take place at any time during the growing season but usually occurs in the fall when most seeds have matured. Local wildlife will be disturbed and displaced temporarily by the activity and heavy equipment. Seed collection will decrease the seed source initially, but it should not have a significant impact on the local plant community. The removal of seeds will decrease the available resource for wildlife species that rely on seeds as a food source.

Grazing – Grazing by livestock removes and tramples some or much of the standing vegetation from a tract of grassland. In general, grazing will decrease vegetative heights, litter depths, and affect plant composition. The measure of short-term impacts will depend upon the grazing timing (time of year), duration (length of graze), and utilization level (i.e., light, moderate, full, close, or severe). Depending on the utilization level, hoof action may help to break up litter thereby increasing the rate of litter decomposition, aiding in nutrient cycling, and reducing competition for native plants. Areas around watering systems, fence lines, and mineral blocks may experience heavy trampling and compaction which can result in the mortality of perennial vegetation and the establishment of early successional species.

Various bird, and pollinator, species differ in their height preferences and diversity of vegetation and a typical management goal is to provide a heterogeneity of vegetation heights across the landscape. After a site has been grazed, a site may be more or less attractive to wildlife species depending on the height of the remaining vegetation.

Birds that prefer shorter stature grasslands, such as upland sandpiper and savannah sparrow may benefit from the reduced vegetative height resulting from grazing. Other birds such as mallards and bobolink, which typically require taller and more dense nesting structure, may be negatively impacted by grazing in the short-term.

Litter reduction and reduced vegetative structure resulting from grazing may create openings within wetlands “choked” by cattails and reed-canary grass improving wetland habitat for water birds.

In situations where grazing utilizations are close or severe, it is possible that there will be less litter available for grassland nesting birds for nest construction. However, grazed areas may attract fewer predators because of low densities of some types of prey, such as small mammals (Grant et al. 1982, Runge 2005); less cover for concealment; or both. Higher nesting success in grazed fields may occur because predators respond negatively to low prey density (Clark and Nudds 1991, Larivière and Messier 1998). If a site is completely devoid of litter prior to winter, certain pollinator larvae may lack the needed cover to survive for that year.

Haying – There will be short-term disturbance and displacement to local wildlife from the process of using the heavy machinery necessary to cut, bale, and remove hay from the unit. Depending on weather, this process can take a few days to a couple of weeks.

Grass/habitat will be removed during the haying process, and it will no longer be available for wildlife to use for food or cover until the next growing season. Removing the duff layer along with the standing vegetation, will allow native vegetation to mature with less competition from non-desired species. Haying in wetlands will reduce vegetative cover, opening choked wetland areas which may be utilized by spring migrating waterfowl and shorebirds.

If early haying, before August 1, is allowed, it may result in the destruction of grassland nesting bird species. Haying could also result in mortality of young grassland and upland birds such as ring-necked pheasant and sharp-tailed grouse.

When used as part of an integrated pest management program, haying can reduce or eliminate the need for herbicide applications. Haying can also improve the efficacy of herbicide applications aimed at noxious weeds potentially reducing overall herbicide use and impacts to non-target native plants.

Long-term impacts

Agriculture – Depending on the condition of a unit and overall goals, this practice could occur from one to four years. During this time, this area will not be available as habitat for most wildlife, especially grassland nesting birds and many pollinators. Deer, pheasants, turkeys and migrating waterfowl will take advantage of waste grain left in the field and use by some of these species may increase during agriculture practices.

Although pesticide use will be closely regulated, local wildlife may be negatively affected. Invertebrates that are a food source and important pollinators may be eliminated and communities may shift. However, with the proper use of chemicals, most weed species can be eliminated thus allowing native species an increased chance of survival when planted.

Mechanical practices will break up the soil and negatively impact the micro-organisms in the soil and important nutrient cycling will slow or cease. Decomposition and subsequent building of organic material will be negatively affected. If the plan allows, leaving residue standing (no-till) over-winter or incorporating cover crops into the management plan will provide food and cover for migrating and wintering wildlife and soil micro-organisms.

With cooperative agriculture for habitat restoration, there will be long-term benefits with the establishment of diverse or more desirable habitat for nesting, escape cover, perching, or noncrop feeding activities. The resulting habitat will generally improve conditions for most of the species negatively affected by the short-term agriculture activity.

Seed Collection – Plant species are usually not abundant all years and most units will not be collected from on an annual basis. Plant species should recover from the lost seed sources quickly. The distribution of seeds from local native plants will allow the success of those species across the landscape.

Grazing – Properly prescribed, the effect of this removal of vegetation increases the vigor of the grassland by stimulating the growth of desired species of grasses and forbs and reducing the abundance of targeted species such as cool season exotic grasses, woody species, noxious weeds, invasive species, and/or cattails. During periods of normal precipitation, regrowth following grazing activities usually occurs within a single growing season. Areas with heavy livestock concentrations (e.g., watering areas, mineral block sites) may require 2-3 years to fully recover from the impacts of grazing. Over time, a strategic prescribed grazing program could effectively alter species composition and improve overall plant diversity. Disturbance of upland and wetland habitats are essential to maintain plant vigor and reduce noxious weeds.

A unit may be negatively affected by grazing with improper utilization of AUM, grazing timing and/or duration. Grazing plans on the District will promote a rotational cycle that alternates grazing and resting periods.

Haying - Haying will increase the vigor of grassland areas for several years and can be an alternative to burning or grazing, the other two methods used to manage grassland habitats. Haying can reduce unwanted overstory, including woody plants, and opens the soil surface to sunlight. Such removal of vegetation allows for more vigorous regrowth of desirable species following the haying. Haying may reduce the need for herbicide use which could result in higher plant diversity and species richness. The rotation and periodic haying of areas also helps to create a mosaic and interspersed habitats that many species find attractive for feeding, breeding, and protection (Maxson and Riggs 1996).

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 14 days from 12/06/2022 to 12/23/2022. A hard copy of this document will be posted at the Refuge Headquarters 221 2nd St. NW, Suite 2, Devils Lake, ND 58301.

It will be made available electronically on the refuge website <https://www.fws.gov/refuge/devils-lake-wetland-management-district> .

Please let us know if you need the documents in an alternative format. Concerns expressed during the public comment period will be addressed in the final document.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

1. All activities will be conducted in accordance with the CAAs.
2. The criteria for evaluating the need for habitat management, including all uses described in this CD, will be determined during annual planning activities.
3. Activities must meet specific and articulated habitat and related wildlife objectives and contribute to the achievement of the purposes for which the refuge units were established. These objectives may be outlined in a Comprehensive Conservation Plan, a Habitat Management Plan, an Annual Work Plan, or in the Special Use Permit.
4. For grazing specific activities-
 - a. No insecticides may be used on refuge lands.
 - b. No supplemental feeding will be allowed on refuge lands.
 - c. Control and maintenance of the livestock will be the responsibility of the permittee.
 - d. Fencing, water supply, and other livestock management infrastructure needs and costs will be outlined on a site by site basis in the SUP.
5. For cooperative agriculture specific activities-
 - a. All activities will adhere to general conditions for cooperative agriculture programs as listed in the Cooperative Agriculture Use Policy (620 FW 2).
 - b. All operations are to be carried out in accordance with the BMPs and soil conservation practices.
 - c. Pesticide use is restricted by type and economic threshold limitation. Annually, all proposed pesticides must be submitted to and approved by the Refuge Manager or the Regional or National Integrated Pest

Management (IPM) coordinator.

6. For haying specific activities-

- a. Any Special Use Permits and Cooperative Agricultural Agreements will be written consistent with 620 FW 2 Cooperative Agricultural Use Policy and Region 6 Cooperative Agricultural Program Guidance (2018).

Justification

Agriculture – It is well known by grassland practitioners that the best way to prepare a site for reconstruction is with a minimum of two years of cooperative agriculture, preferably with soybeans as the final crop. Using mechanical and chemical means to clear the field and through regular agriculture practices, most unwanted plants are eliminated, and the seed bed is cleaned. This prepares the field for native prairie plantings and makes it easier for native plants to flourish due to reduced competition.

Seed Collection –Native seeds collected from local sources have a greater chance of success in a reconstruction as they are adapted to the region’s natural conditions and provide the local wildlife, especially pollinators, the same genetics of the plant they are adapted to.

Grazing - Prior to Euro-American settlement, grasslands and the associated wildlife in the Northern Great Plains thrived under periodic defoliation, primarily from fire and grazing. Notable grazing animals included bison, elk, small mammals, and even insects such as grasshoppers. Today, domestic livestock are used to mimic the defoliation once provided by bison and elk.

Grasslands devoid of management over the long-term will deteriorate to where they no longer support overall ecosystem functions. Migratory bird habitat and ecological diversity will decrease as habitat suitability declines. This often can negatively affect plant composition and lead to an increase in introduced cool-season grasses (i.e., Kentucky bluegrass and smooth brome grass). Plant diversity will decrease which can negatively impact pollinators closely associated with native plants.

When grasslands do not provide a heterogeneity of thickness and plant heights, only the species of birds that prefer a thick litter and uniform plant height will be attracted. Grazing, when incorporated into an integrated grassland management program and implemented over time, can result in enhanced native plant diversity, structure, and overall improved grassland health.

Haying - Haying is an effective grassland management tool. Certain aspects of haying can have negative short-term impacts on wildlife, but long-term benefits can include improved grassland vigor, potentially reduced herbicide use, and increased structural and plant diversity of a grassland. Without occasional disturbance, it is likely grasslands will deteriorate in species richness and diversity thereby negatively impacting plant and wildlife resources.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

12/06/2022

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