

Draft Compatibility Determination

Title

Draft Compatibility Determination for Cooperative Farming on Fee Title and Easement Property, Crosby Wetland Management District.

Refuge Use Category

Agriculture, Aquaculture, and Silviculture

Refuge Use Type(s)

Farming (cooperative)

Refuge

Crosby Wetland Management District, Crosby, North Dakota

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

- "... as a refuge and breeding ground for migratory birds and other wildlife ..." Executive Orders 7170, 7170-A, 7161, and 7154-A "... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds" 16 U.S.C. § 715d (Migratory Bird Conservation Act).
- "...as Waterfowl Production Areas" subject to "...all of the provisions of such Act ...except the inviolate sanctuary provisions..." 16 U.S.C. 718(c) (Migratory Bird Hunting and Conservation Stamp Act).
- "...for conservation...of...wildlife resources" 16 U.S.C. 742f (Fish and Wildlife Act).
- "...for conservation purposes..." 7 U.S.C. 2002 (Agricultural Act of 1961 and Consolidated Farm and Rural Development 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 September 2008 compatibility determination for cooperative farming that was evaluated and found compatible as part of the Comprehensive Conservation Plan for North Dakota Wetland Management Districts (U.S. Fish and Wildlife Service 2008).

What is the use?

We propose to allow cooperative farming on a limited basis throughout the district on fee title and easement lands as a refuge management economic use. Cooperative farming is the practice of agriculture, especially mechanically disturbing the soil and artificially introducing seeds or other plant parts periodically to produce stands of plants, for use primarily as food and habitat by wildlife, domestic animals, or humans. This includes water delivery, irrigation, and drainage.

Is the use a priority public use?

No

Where would the use be conducted?

The use may be conducted on fee title or easement lands within Divide, Burke or Williams counties, North Dakota. Currently, the District encompasses approximately 38,000 acres of grasslands and 77,000 acres of wetlands; however not all of this is suitable for farming. Due to the infrequent nature of farming activities, it is anticipated that farming will not be conducted every year on Service interest lands within the District. In years that farming is conducted, it is unlikely that more than a section (640 acres) would be farmed in total in any given year. Farming of individual properties would be evaluated on a case-by-case basis. Cooperative farming activities are generally limited to areas of former cropland or poor-quality stands of tame or cool-season invasive grasses. Occasionally, farming of dry lakebeds is used to reduce drifting of lake sediments and dust.

When would the use be conducted?

The use would occur during normal farming timeframes. Typically, in North Dakota, this means seeding would occur in the spring (April-June), pesticide application (if approved) may occur during the summer (July), and harvest would occur in late summer to fall (August – November). Some farming, such as waterfowl food plantings, may be done infrequently and opportunistically when sloughs are dry. Farming in conjunction with prairie restorations is typically accomplished via a short-term

restoration plan (3-4 years).

How would the use be conducted?

Cooperative farming on easement land will be conducted by the landowner. Cooperative farming on fee title lands will be conducted by cooperating local landowners when available. In both cases, a Special Use Permit (SUP) will be issued.

Conventional farming equipment will be used, and may include tractors, swathers, combines, seeders, air drills, sprayers, rollers, trucks or trailers. Conventional or no-till practices may be used, depending on management needs and the farming history of individual tracts. Any chemical applications will have approved Pesticide Use Proposals in place prior to application, and farming activities will comply with current Service policies and regulations regarding Genetically Modified Organisms (GMOs) and neonicotinoid pesticides. Section 7 consultations, cultural resource reviews and NEPA compliance will be evaluated prior to issuance of SUPs. SUPs may be subject to additional special conditions which will be evaluated on a case-by-case basis.

Why is this use being proposed or reevaluated?

This use is being reevaluated due to the renewal period ending, as required by Service policy (603 FW2.11 H.).

Availability of Resources

No special equipment, facilities, or improvements are necessary to support this use. Staff time is available to develop and administer cooperative farming agreements. Most of the needed fieldwork to prepare and plan for this use would be done as part of routine grassland or upland management. The decision to use a cooperating farmer would occur as part of the overall strategy for managing land within a refuge. The time needed to coordinate the issuance of, and oversee, the special use permit or cooperative farming agreement is relatively minor and within the refuge's abilities. In addition, the use of a cooperating farmer would free up Service employees who would otherwise have to conduct the farming operation. In most cases, farmers conduct cooperative farming operations on Service lands on a share basis, rather than for a fee. We typically receive our share as:

- harvested grain used for other management purposes such as standing grain left for wildlife food;
- added work such as the control of invasive plants, cultivation, or added seedbed preparation;
- supplies such as herbicide or grass seed to be used on the same tract of land.

Anticipated Impacts of the Use

The effects and impacts of the proposed use to refuge resources, whether adverse or beneficial, are those that are reasonably foreseeable and have a reasonably close causal relationship to the proposed use. This compatibility determination includes the written analyses of the environmental consequences on a resource only when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Threatened and Endangered species and other special status species, air quality, floodplains, visitor use and experience, cultural resources, and refuge management and operations will not be more than negligibly impacted by the action and have been dismissed from further analyses.

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

Declining grassland quantity and quality are thought to be primary drivers of grassland bird declines (Hill et al. 2014). Continuous idling without periodic disturbance fails to promote long-term grassland health (Naugle et al. 2000). With extended rest, introduced grasses, especially smooth brome and Kentucky bluegrass, may more rapidly displace native vegetation (Murphy and Grant 2005). Monotypic stands of smooth brome and Kentucky bluegrass are less attractive to upland-nesting ducks than other types of grass-forb cover (Nenneman 2003). Cooperative farming is authorized as a management tool for restoration or improvement of grassland habitats. Farming is an effective short-term technique to prepare an optimal seed bed to enhance seed to soil contact of native grass seeds, and to reduce the weed seed bank prior to seeding grass species (Duebbert et al. 1981; Dixon et al. 2017). Additionally, cooperative farming of dry wetlands may be used opportunistically during times of drought to stabilize soil, improve air quality (Goodman et al 2019), and provide wildlife forage during periods of scarcity.

Short-term impacts

Cooperative farming to prepare suitable seedbeds for planting better cover and habitat will result in short term disturbances and long-term benefits to both resident and migratory wildlife using the WPAs and easements. Short-term effects include disturbance and displacement of wildlife typical of any noisy heavy-equipment operation, and the loss of poor-quality cover and forage while the tract is farmed. Nests of birds nesting in farmed areas may potentially be disturbed or destroyed during farming operations. Chemical applications could adversely affect pollinators and other insects present at the time of application. Wildlife may use farmed areas as additional food sources during the farming period. These impacts are considered minimal due to the temporary and infrequent nature of cooperative farming activities.

Long-term impacts

No long-term negative impacts are anticipated due to farming activities. There will be long-term benefits due to the establishment of diverse or more desirable habitat for nesting, escape cover, perching, or non-crop feeding activities. The resulting habitat will generally improve conditions for most of the species negatively affected by the short period of farming activity. Completion of Section 7 and Cultural Resources consultations for each farming will ensure there will be no negative effects on cultural resources or threatened or endangered species.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 14 calendar days from November 13 through November 26, 2022. The public will be made aware of this comment opportunity through public notices. A hard copy of this document will be posted at the Crosby Wetland Management District Office, Crosby, ND. It will be made available electronically on the refuge website (<https://www.fws.gov/refuge/crosby-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 Compatibility Determination.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

1. Issuance of a permit does not preclude the requirements for obtaining necessary permits or approvals from other County, State, or Federal Agencies and from local landowners.
2. The permit is issued subject to the revocations and appeals procedure contained in Title 50, Part 25 of the Code of Federal Regulations.
3. Crops and grass seed mixes will be approved by the Refuge Manager prior to planting.
4. Pesticide use will be reviewed by the Refuge Manager and an approved Pesticide Use Proposal will be in place prior to any pesticide applications.
5. The Refuge Manager may terminate or modify the terms of the special use permit at any time if the permittee is out of compliance or to ensure wildlife and habitat protection.
6. Additional stipulations may be added to address specific concerns for each tract to be farmed.

Justification

The stipulations outlined above would help ensure that the use is compatible at Crosby Wetland Management District. Cooperative farming, as outlined in this compatibility determination, would not conflict with the national policy to maintain the biological diversity, integrity, and environmental health of the refuge. Based on available science and best professional judgement, the Service has determined that the cooperative farming at Crosby Wetland Management District, in accordance with the stipulations provided here, would not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purpose of the District. Rather, appropriate and compatible cooperative farming would ultimately improve the quality of habitat in certain instances on Service lands. There will be minimal and temporary disturbance to wildlife and low-quality habitat while active farming occurs. Prior to issuing any permits, the manager and cooperator will have worked to achieve compliance with all applicable regulations and policies. The long-term outcomes of more desirable habitat, increased species diversity, improved forage quality and reduced invasives support the Service's mission and the purpose of Crosby Wetland Management District.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Assistant Regional Director Signature and Date

Mandatory Reevaluation Date

2032

Literature Cited/References

Dixon, C., P. Comeau, K. Askerooth, J. Norland and K. Sedivec. Prairie Reconstruction Guidebook for North Dakota. North Dakota State University, Fargo, ND.

Duebbert, H.F., E.T. Jacobson, K.F. Higgins and E.B. Podoll. 1981. Establishment of seeded grasslands for wildlife habitat in the Prairie Pothole Region. U.S. Fish and Wildlife Service, Special Scientific Report, Wildlife No. 234. Jamestown, N.D: Northern Prairie Wildlife Research Center Online. <https://pubs.er.usgs.gov/publication/2000116>

Goodman, Michael M., Gregory T. Carling, Diego P. Fernandez, Kevin A. Rey, Colin A. Hale, Barry R. Bickmore, Stephen T. Nelson, Jeffrey S. Munroe. Trace element chemistry of atmospheric deposition along the Wasatch Front (Utah, USA) reflects regional playa dust and local urban aerosols. Chemical Geology, 2019; 530: 119317 DOI: 10.1016/j.chemgeo.2019.119317

Hill, Jason M., J. Franklin Egan, Glenn E. Stauffer, Duane R. Diefenbach. Habitat Availability Is a More Plausible Explanation than Insecticide Acute Toxicity for U.S. Grassland Bird Species Declines. PLoS One online: May 20, 2014. <https://doi.org/10.1371/journal.pone.0098064>

Murphy, R.K.; Grant, T.A. 2005. Land management history and floristics in mixed-grass prairie, North Dakota, USA. Natural Areas Journal 25:351–58.

Naugle, D.E.; Bakker, K.K.; Higgins, K.F. 2000. A synthesis of the effects of upland management practices on waterfowl and other birds in the northern great plains of the U.S. and Canada. Wildlife Technical Report 1. 28 p.

Nenneman, M.P. 2003. Vegetation structure and floristics at nest sites of grassland birds in north central North Dakota. [master's thesis]. Missoula, MT: University of Montana. [Pages unknown].

U. S. Fish and Wildlife Service. 2008. Comprehensive Conservation Plan for North Dakota Wetland Management Districts.