

# **Draft Environmental Assessment**

## **for Hunting and Fishing on North Dakota Limited-Interest National Wildlife Refuges**

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# **Draft Environmental Assessment for Hunting and Fishing on North Dakota Limited-Interest National Wildlife Refuges**

**Date:** February 25, 2020

This Environmental Assessment (EA) is being prepared to evaluate the effects associated with this proposed action and complies with the National Environmental Policy Act (NEPA) in accordance with Council on Environmental Quality regulations (40 Code of Federal Regulations [CFR] 1500-1509) and Department of the Interior (43 CFR 46; 516 DM 8) and United States (U.S.) Fish and Wildlife Service (Service) (550 FW 3) regulations and policies. NEPA requires examination of the effects of proposed actions on the natural and human environment.

## **1.0 Introduction**

### **1.1 Proposed Action**

The Service is proposing to open 41 limited-interest national wildlife refuges (easement refuges) in North Dakota to hunting of resident game species, excluding migratory birds, and 38 of these refuges to fishing in accordance with the laws and regulations of the State of North Dakota. Three easement refuges have previously been opened to fishing (Ardoch, Rose Lake, and Silver Lake National Wildlife Refuges [NWRs]). Boating would be closed on most of the easement refuges during the regular North Dakota waterfowl season.

This action is being done in accordance with the comprehensive conservation plan (CCP) and EA for North Dakota Limited-interest NWRs, as amended (USFWS 2006, Appendix 2), and the Tewaukon NWR CCP, as amended (USFWS 2000, Appendix 3).

These easement refuges are found in central and eastern North Dakota and typically consist of a mix of private and government owned property (Figure 1). In cases where easement refuge boundaries overlay privately owned lands, access to those lands for the purpose of hunting and fishing would remain controlled by the individual landowner. The public land portions of easement refuges would be open to the public for hunting and fishing. In total, the easement refuges encompass 48,761 acres. Easement refuge sizes range from the 160-acre Half Way Lake NWR to the 5,506-acre Rock Lake NWR.

A proposed action is often iterative and may evolve during the NEPA process as the agency refines its proposal and gathers feedback from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The proposed action will be finalized at the conclusion of the public comment period for the EA and the Draft 2020–2021 Refuge-Specific Hunting and Sport Fishing Regulations. The Service cannot open a refuge to hunting or fishing until a final rule has been published in the Federal Register formally opening the refuge to hunting or fishing.

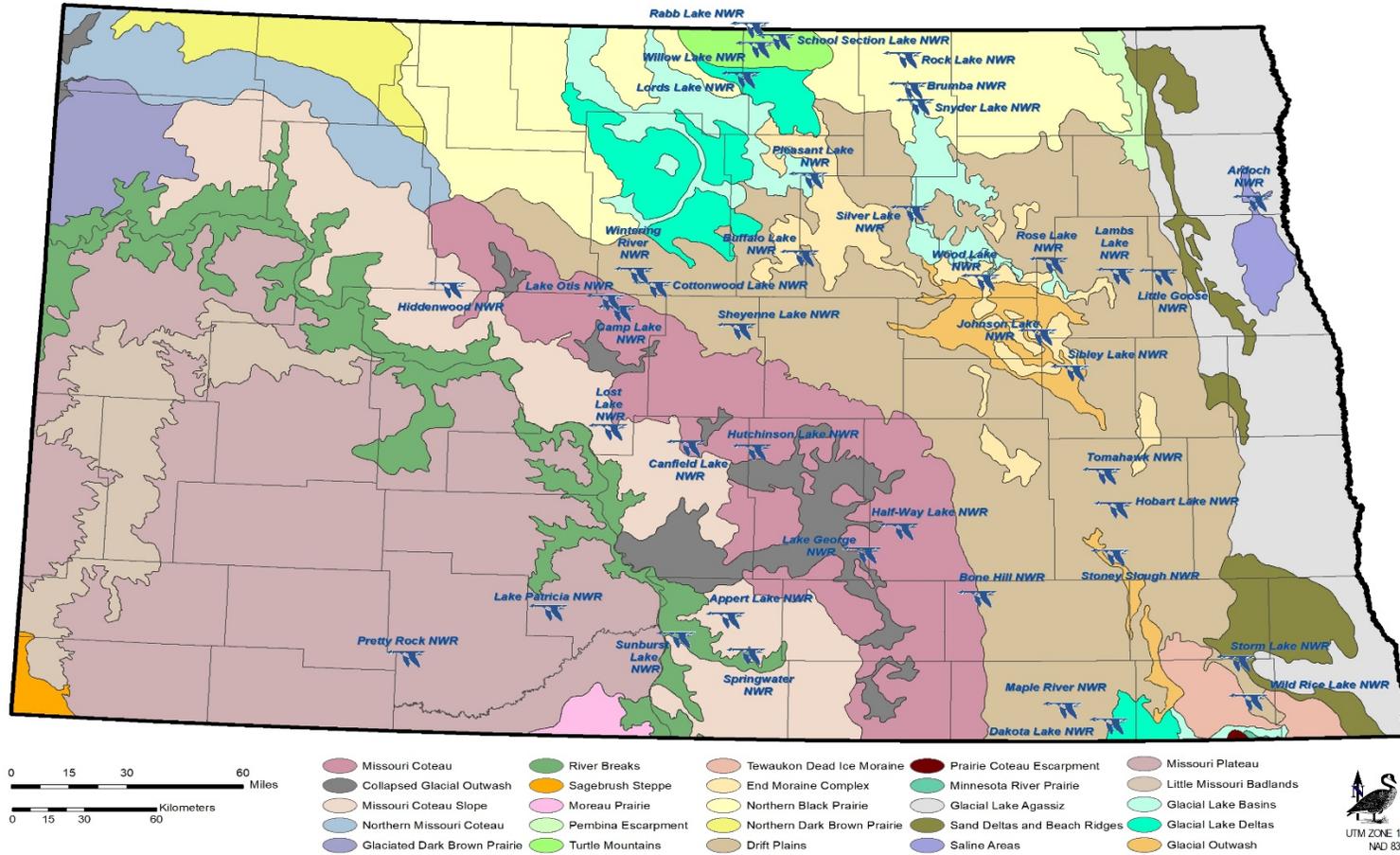


Figure 1. Name and Location of North Dakota Limited-interest National Wildlife Refuges and Location of North Dakota Ecoregions.

## 1.2 Background

National wildlife refuges are guided by the mission and goals of the National Wildlife Refuge System (Refuge System), the purposes of an individual refuge, Service policy, and laws and international treaties. Relevant guidance includes the National Wildlife Refuge System Administration Act of 1966 (NWRSA), as amended by the National Wildlife Refuge System Improvement Act of 1997 (Improvement Act), Refuge Recreation Act of 1962, and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

In the 1930s, the U.S. was faced with a depression, a massive drought, and declining waterfowl and other wildlife populations. To address these crises, the federal government developed the Easement Refuge Program (Program) (USFWS 2006). Working with states and private landowners, beginning in 1935, dozens of limited-interest refuge agreements were signed. These refuge and flowage easements, most perpetual, were established for the purposes of (1) water conservation, (2) drought relief, and (3) migratory bird and wildlife conservation purposes.

The economic crisis was also addressed through this Program. Programs through the Works Progress Administration and Civilian Conservation Corps provided jobs in the local communities to build the structures needed to impound and control water levels. This reliable water source was not only critical to wildlife but to the livelihood of the landowners and their agricultural operations.

Although most were perpetually protected, a new status was given to these lands in the late 1930s and 1940s. Refuge lands in close proximity were combined, establishing an approved acquisition boundary, and designated as migratory bird sanctuaries (later changed to national wildlife refuges) under the authorities of executive orders and conservation laws. To this day, 93 percent of these lands remain in private ownership, making them unique among the more than 540 national wildlife refuges. The 41 easement refuges (Figure 1) include: Appert Lake, Ardoch, Bone Hill, Brumba, Buffalo Lake, Camp Lake, Canfield Lake, Cottonwood Lake, Dakota Lake, Half Way Lake, Hiddenwood, Hobart Lake, Hutchinson Lake, Johnson Lake, Lake George, Lake Otis, Lake Patricia, Lambs Lake, Little Goose, Lords Lake, Lost Lake, Maple River, Pleasant Lake, Pretty Rock, Rabb Lake, Rock Lake, Rose Lake, School Section Lake, Sheyenne Lake, Sibley Lake, Silver Lake, Snyder Lake, Springwater, Stoney Slough, Storm Lake, Sunburst Lake, Tomahawk, Wild Rice Lake, Willow Lake, Wintering River, and Wood Lake.

The overarching purpose of the Program is management of migratory birds. Thirty-two refuges were established under executive orders, signed in 1934 and 1939 by President Franklin D. Roosevelt, “as a refuge and breeding ground for migratory birds and other wildlife.” Seven easement refuges were established in 1948 under a precursor to the Fish and Wildlife Coordination Act (August 14, 1946, 60, Stat. 1080) and “shall be administered by him [Secretary of Interior] directly or in accordance with cooperative agreements...and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon.” Wild Rice Lake NWR was “Designated as a National Wildlife Refuge by F.R. Doc. 48-11040 12-20-48.” In 1971, the limited-interest refuge that covers what is now Lake Otis NWR was “rediscovered,” at which time the Director established it as a refuge under the Migratory Bird Conservation Act “for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

As part of the development of the CCP for the limited-interest easement refuges, the Service examined dozens of historical documents, correspondence, and several solicitor's opinions to better understand the intent of the Program and define terms in the easement agreements such as "wildlife conservation demonstration unit" and "closed refuge and reservation for migratory birds" (USFWS 2006). The limited-interest refuge agreements with a flowage provision focus on the impoundment or main body of water. The Service's water rights to the impoundment or main body of water may be through structures or through an established water right which provide authority to manage water uses. The Service manages water uses, including fishing, boating, and water skiing, to minimize or eliminate negative impacts on migratory birds and other wetland-dependent wildlife. It was clear in the documentation that the Service was given the right to control hunting, including the right to allow it. However, the easements do not explicitly grant the Service control of broad public access; this right is retained by the private landowner. In addition, it appears the intent of the easement was not to control other uses that occur on the uplands or naturally occurring wetlands.

The specific establishment date, legislation, and purpose(s) for each easement refuge are located in Table 4 of the CCP and EA for North Dakota Limited-interest NWRs (USFWS 2006), the Tewaukon NWR CCP (USFWS 2000), and a memorandum on file regarding "Official Approved Acquisition Boundary in Digital Form for Wild Rice Lake NWR, North Dakota" dated December 9, 2003.

To date, most of the limited-interest refuges have remained closed to all public use; they have historically been closed to hunting. Only three of the refuges have been officially opened to public fishing. To provide visitor services on private lands in the limited-interest refuges, access must be provided by the landowner. If any public activity is allowed, it must be open to the general public. There may be limitations as to the number of participants and seasons of use, but the general public must be given the opportunity to participate because refuges are managed by the federal government.

The mission of the Refuge System, as outlined by the NWRSA, as amended by the Improvement Act (16 U.S. Code 668dd et seq.), 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."*

The NWRSA mandates the Secretary of the Interior in administering the System to 16 U.S. Code 668dd(a)(4):

- provide for the conservation of fish, wildlife, and plants, and their habitats within the Refuge System;
- ensure that the biological integrity, diversity, and environmental health of the Refuge System are maintained for the benefit of present and future generations of Americans;
- ensure that the mission of the Refuge System described at 16 U.S. Code 668dd(a)(2) and the purposes of each refuge are carried out;
- ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the Refuge System are located;

- assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the Refuge System and the purposes of each refuge;
- recognize compatible wildlife-dependent recreational uses as the priority general public uses of the Refuge System through which the American public can develop an appreciation for fish and wildlife;
- ensure that opportunities are provided within the Refuge System for compatible wildlife-dependent recreational uses;
- monitor the status and trends of fish, wildlife, and plants in each refuge.

Therefore, it is a priority of the Service to provide for wildlife-dependent recreation opportunities, including hunting and fishing, when those opportunities are compatible with the purposes for which the refuge was established and the mission of the Refuge System.

### **1.3 Purpose and Need for the Proposed Action**

The purpose of this proposed action is to open fishing and hunting of resident game species on easement refuges in North Dakota.

The need of the proposed action is to meet the Service’s priorities and mandates as outlined by the NWRSA to (1) “recognize compatible wildlife-dependent recreational uses as the priority general public uses of the Refuge System through which the American public can develop an appreciation for fish and wildlife”; (2) “ensure that opportunities are provided within the Refuge System for compatible wildlife-dependent recreational uses”; and (3) “ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the states in which the units of the Refuge System are located.”

The Service encourages the development of hunting and fishing programs on national wildlife refuges when they are compatible with the refuge’s legal purpose, biologically sound, affordable, and properly coordinated with other refuge programs. Easement refuges are an integral part of the Refuge System, 16 U.S. Code 668dd. The easements state that the U.S. acquired the perpetual right to flood the land and maintain a lake on the land subject to the easement for the purposes of water conservation, drought relief, migratory bird conservation, maintenance of a wildlife demonstration unit, and a closed refuge and reservation for migratory birds and other wildlife. The language in the easements on “closed refuges” does not preclude the Service from opening them to limited hunting and fishing, with access controlled by the individual landowner. The decision to open the refuges is made pursuant to the procedures in 50 CFR Part 32.1, where the Service will make a determination if the opening of the refuges “will be compatible with the principles of sound wildlife management and will otherwise be in the public interest.”

The Service and the North Dakota Game and Fish Department (NDGFD) consider hunting and fishing acceptable and desirable forms of public use and wildlife-dependent recreation. Hunting and fishing are considered an educational and recreational opportunity to increase the public’s awareness of wise stewardship and management of wildlife resources and are included in the six priority public uses (hunting, fishing, wildlife observation, photography, environmental education, and environmental interpretation) established by Executive Order 12996 (March 25, 1996), and legislatively authorized by the Service’s Refuge System Improvement Act of 1997 (Public Law 105-57).

Hunting and fishing on easement refuges supports the Service’s goal to “foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high quality, and wildlife-dependent public uses including hunting, fishing, wildlife observation, photography, environmental education, and interpretation.” Hunting and fishing on easement refuges would also contribute to the mission of the NDGFD “to protect, conserve and enhance fish and wildlife populations and their habitat for sustained public consumptive and non-consumptive use.”

## **2.0 Alternatives**

### **2.1 Alternatives Considered**

#### **Alternative A – Open North Dakota Limited-Interest National Wildlife Refuges to Hunting of Resident Game Species and Fishing – Proposed Action Alternative**

The refuge has prepared a hunting and fishing plan (USFWS 2020), which is presented in this document as the Proposed Action Alternative.

Under the Proposed Action Alternative, the Service would open 41 limited-interest NWRs (easement refuges) in North Dakota to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations. Three easement refuges have previously been opened to fishing (Ardoch, Rose, and Silver NWRs).

The 41 easement refuges are found in central and eastern North Dakota and typically consist of a mix of private and government owned property (Figure 1). The public land portions of easement refuges would be open to the public for limited hunting and fishing. In cases where easement refuge boundaries overlay privately owned lands, access to those lands for the purpose of hunting and fishing would remain controlled by the individual landowner. In total, the easement refuges encompass 48,761 acres. Easement refuge sizes range from the 160-acre Half Way Lake NWR to the 5,506-acre Rock Lake NWR.

Resident game includes all, non-migratory, wildlife that are hunted in North Dakota under the NDGFD Hunting Regulations. Species included are Hungarian partridge, sharp-tailed grouse, ruffed grouse, pheasant, badger, coyote, red fox, grey fox, bobcat, mink, muskrat, mountain lion, beaver, raccoon, weasel, moose, elk, bighorn sheep, white-tailed deer, mule deer, pronghorn, turkey, prairie dog, skunk, porcupine, rabbits, tree squirrels, and ground squirrels.

Fish shall include all species included in the NDGFD Fishing Regulations. Species included are bluegill, burbot, channel catfish, chinook salmon, white crappie, black crappie, largemouth bass, muskellunge (pure and hybrid), northern pike, paddlefish, sauger, saugeye, smallmouth bass, sturgeon (pallid, shovelnose, and lake), trout (brown, cutthroat, lake, and rainbow), walleye, white bass, yellow perch, zander, whitefish, cisco, bullhead, drum, buffalo, carp, and goldeye.

Boating would be closed on all easement refuges during the regular North Dakota waterfowl season except on Buffalo Lake, Camp Lake, Cottonwood Lake, Hiddenwood, Rose Lake, School Section, and Sheyenne Lake NWRs. This closure would reduce impacts to migrating waterfowl on those refuges.

Under the Proposed Action Alternative, the easement refuges in North Dakota would be open to resident game hunting and fishing. This alternative provides a recreational experience to the

general public while maintaining a sustainable population of resident wildlife and fish. The estimated cost to provide this opportunity is \$40,000.00 annually. Under this alternative, the refuge law enforcement officer would respond to any migratory bird hunting violations, otherwise NDGFD wardens would monitor hunting and fishing, and they would conduct license, bag limit, and access compliance checks.

### **Alternative B – North Dakota Limited-Interest National Wildlife Refuges Will Remain Closed to Hunting and Fishing – No Action Alternative**

Under the No Action Alternative, easement refuges would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.

## **2.2 Alternative(s) Considered, But Dismissed from Further Consideration**

### **Open Easement Refuges to Hunting of Migratory Birds According to State and Federal Regulations**

Migratory birds include all migratory birds hunted in North Dakota under the NDGFD Hunting Regulations. Species and species groups include Canada geese, white-fronted geese, snow geese, Ross's geese, sandhill cranes, ducks, mergansers, coots, tundra swan, snipe, crows, doves, and woodcock.

In determining what hunting and fishing activities are compatible uses, the Service considered the specific rights embodied in the easements as well as evaluating refuge purposes. Any action, which would result in degrading or destroying the migratory bird values of the refuges, would not fulfill the purposes of the easement refuges. Since any hunting of migratory birds during core waterfowl migration in most areas would disturb the normal feeding, sheltering, resting, and other behavioral activities, such actions are inconsistent with the purposes of the easement refuges.

### **Close All Easement Refuges to Boating During the Regular North Dakota Waterfowl Season**

We, the Service, considered closing all easement refuges to boating during the regular North Dakota waterfowl season; however, we decided there are legitimate reasons not to prohibit boating during this time on a small number of easement refuges. The refuges that would not have this closure include Buffalo Lake, Camp Lake, Cottonwood Lake, Hiddenwood, Rose Lake, School Section, and Sheyenne Lake. Rose Lake NWR has been absorbed by Stump Lake and it would not be feasible to delineate the boundary of the refuge in order to enforce this closure. The other refuges have limited value to, or use by, waterfowl and are part of North Dakota Wildlife Management Areas with existing managed fisheries. The disruption to fishing on these six easement refuges, which is a priority public use of NWRs, for no benefit or minimal benefit to migratory bird populations, was deemed unnecessary by the Service.

### **3.0 Affected Environment and Environmental Consequences**

#### **3.1 Affected Environment**

A description of the size and location of each easement refuge is in the CCP and EA for North Dakota Limited-interest NWRs (USFWS 2006), Tewaukon NWR CCP (USFWS 2000), and Figure 1.

Thirty-nine of the easement refuges are located east of the Missouri River in central and eastern North Dakota and the remaining two are west of the Missouri River in south central North Dakota. Figure 1 depicts the location of individual easement refuges in relationship to North Dakota ecoregions.

Easement refuges consist of a mixture of wetlands, grasslands, riparian areas, agricultural lands and developed lands and vary by location. Most uplands within the refuges are classified as cropland, grass, hay, or undisturbed habitat type. Most of the wetland habitat types within the limited-interest refuges are classified as lakes. Some refuges encompass sections of small communities and most of the limited-interest refuges have had some form of development or use varying from livestock yards to dozens of recreational cabins.

To date, most of the limited-interest refuges have remained closed to all public use; they have historically been closed to hunting. Only three of the refuges have been officially opened to public fishing. To provide visitor services on the limited-interest refuges, access must be provided by the landowner. If any public activity is allowed, it must be open to the general public. There may be limitations as to the number of participants and seasons of use, but the general public must be given the opportunity to participate because national wildlife refuges are managed by the federal government.

Tables 1 through 6 provide brief descriptions of each resource affected by the proposed action.

For more information regarding the affected environment, please see Chapter 4 of the CCP and EA for North Dakota Limited-interest NWRs (USFWS, 2006), which can be found here: [https://www.fws.gov/mountain-prairie/refuges/nd\\_lir.php](https://www.fws.gov/mountain-prairie/refuges/nd_lir.php).

#### **3.2 Environmental Consequences of the Action**

This section analyzes the environmental consequences of the action on each affected resource, including direct and indirect effects. This EA 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” or are otherwise considered important as related to the proposed action. Any resources that would not be more than negligibly impacted by the action and have been identified as not otherwise important as related to the proposed action have been dismissed from further analyses.

Tables 1 through 5 provide:

- a brief description of the affected resources in the proposed action area;
- impacts of the proposed action and any alternatives on those resources, including direct and indirect effects.

Table 6 provides a brief description of the anticipated cumulative impacts of the proposed action and any alternatives.

Impact Types:

- *Direct effects* are those which are caused by the action and occur at the same time and place.
- *Indirect effects* are those which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.
- *Cumulative impacts* result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions.

**Table 1. Affected Natural Resources and Anticipated Direct and Indirect Impacts of the Proposed Action and Any Alternatives.**

<p><b>Affected Resources</b></p>	<p><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p><b><u>Alternative B (No Action)</u></b></p> <p><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<p><b>Resident Big Game</b></p>		
<p>The populations of resident big game species (bighorn sheep, elk, moose, white-tailed deer, mule deer, and pronghorn) on each of the easement refuges is not currently known. The Service does not monitor wildlife populations on easement refuges. Information on the use of easement refuges by big game species is limited to informal observations by Service staff that occurs opportunistically during site visits, reports by landowners, and general knowledge of species' range and habitat preferences.</p> <p>White-tailed deer are found throughout North Dakota and are most common in the eastern two-thirds of the state where most of the easement refuges are located. Landowners have asked the Service to address crop damage on some easement refuges due to high concentrations of white-tailed deer in these protected areas.</p>	<p>Opening easement refuges to hunting of resident big game species would expand hunting opportunities by providing additional lands for hunting and would negligibly contribute to an increase in harvest of game species. We expect that the proposed action would not significantly increase the number of hunters but would redistribute hunters and hunting pressure. In 2018, there were 79,461 general game licenses, 35,192 small game licenses and 56,148 combination licenses sold statewide (NDGFD 2019a). Collectively, the Service estimates that there would be an average of 1,000 hunter use days annually on easement refuges, which is a small percentage of total statewide hunting effort. For example, deer are likely to be one the species most commonly hunted on easement refuges. In 2018, 47,717 deer hunters spent an average of 4.4 days in the field, or just over 200,000 hunter use days (NDGFD 2019b). The actual number of hunter use days would vary based on which landowners choose to open their land to hunting.</p> <p>In 2018, North Dakota hunters harvested 31,350 deer during the gun season. The success rate for white-tailed hunters was 64 percent (NDGFD 2019b). This was a little higher than 2017 (61 percent), and below the NDGFD goal of 70 percent. Given that white-tailed deer are common across portions of the state where the easement refuges are located, we, the Service, would expect similar hunter harvest success on easement refuges. We estimate that less than ten white-tailed deer might be harvested per easement refuge. If all easement refuges are opened to hunting, this would be 1 to 2 percent of the statewide deer harvest, and thus a negligible impact.</p> <p>The only elk hunt unit with easement refuges is E1W, which includes the Turtle Mountains in northcentral North Dakota. In 2018, 27 elk were harvested in this unit, which was just over 10 percent of the statewide harvest (NDGFD 2019c).</p>	<p>Under this alternative, the easement refuges would remain closed to big game hunting and thus there would be no impacts to these wildlife populations. However, this alternative would prohibit landowners from using hunting as a management tool to reduce species that are prone to overpopulation at a local level such as white-tailed deer. Deer overpopulation on an easement refuge can result in habitat destruction, and increase the potential for outbreak of wildlife disease, malnutrition, and starvation in deer during severe winters.</p>

<p>Elk are highly adaptable and able to flourish in most habitats from dry sagebrush grasslands to forested river bottoms.</p> <p>Moose are found primarily in the Turtle Mountains and along forested rivers in the northern one-third of North Dakota. Scattered family units are frequently found along the Canadian border and eastern third of the state.</p> <p>Mule deer and pronghorn are found primarily west of the Missouri River in the southwestern portion of the state. There are four easement refuges (Pretty Rock, Lake Patricia, Sunburst Lake and Springwater) that may be used occasionally by mule deer or pronghorn.</p> <p>Bighorn sheep are found only in steep badlands terrain along the Little Missouri River and are unlikely to occur on any easement refuges.</p> <p>Elk are highly adaptable and able to flourish in most habitats from dry sagebrush grasslands to forested river bottoms.</p> <p>Moose are found primarily in the Turtle Mountains and along forested rivers in the northern one-third of North Dakota. Scattered family units are frequently found along the Canadian border and eastern third of the state.</p>	<p>In 2019, North Dakota increased the number of elk licenses in this unit in response to growing elk populations (NDGFD 2019d). Under this alternative, we estimate less than five elk total may be harvested on easement refuges, which would be less than 2 percent of the 2019 statewide harvest and therefore would be a minor negative impact. In recent years, NDGFD had been receiving increased sighting reports and nuisance complaints within the Turtle Mountain (Bottineau and Rolette counties) (Armor et al. 2019). Although the overall impact to elk populations would be expected to be negligible (see above), the ability of individual landowners to permit hunting on land they own within the easement refuges may provide a minor positive benefit by reducing crop damage or other elk nuisance occurrences on a site specific basis.</p> <p>In 2018, 294 moose were harvested within the state (NDGFD 2019c). Success for moose hunters historically runs above 90 percent (NDGFD 2019d). Given that most easement refuges are not optimal moose habitat, it is unlikely that more than one or two animals might be harvested on these lands. This would be less than 1 percent of the statewide harvest and therefore would be a negligible impact.</p> <p>A mule deer buck license remains one of the most difficult licenses to draw, but hunter success for mule deer buck hunters was 81 percent in 2018. Similarly, 792 pronghorns were harvested statewide with a success rate of 81 percent (NDGFD 2019d). Given that most of the easement refuges are outside the primary range of mule deer and pronghorn, it is unlikely that opening the refuges to hunting for these species would result in more than an occasional harvest of a transient animal. This would likely have little to no impact on the local or regional populations of mule deer or pronghorn.</p> <p>Likewise, bighorn sheep are found only in steep badlands terrain along the Little Missouri River. There are no easement refuges in this area and thus the proposed action would have no impact on bighorn sheep populations.</p> <p>Overall, harvest of resident game species on easement refuges individually would constitute a very minor and negligible percentage of the statewide harvest and would be well within the statewide harvest levels for these species' populations within the state. Therefore, this alternative would not directly impact sustainability of these species within the state.</p> <p>The only elk hunt unit with easement refuges is E1W, which includes the Turtle Mountains in northcentral North Dakota. In 2018, 27 elk were harvested in this unit, which was just over 10 percent of the statewide harvest (NDGFD 2019c). In 2019, North Dakota increased the number of elk licenses in this unit in response to growing elk populations (NDGFD 2019d).</p>	
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<p style="text-align: center;"><b>Affected Resources</b></p>	<p style="text-align: center;"><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p style="text-align: center;"><b><u>Alternative B (No Action)</u></b></p> <p><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<p>Mule deer and pronghorn are found primarily west of the Missouri River in the southwestern portion of the state. There are four easement refuges (Pretty Rock, Lake Patricia, Sunburst Lake and Springwater) that may be used occasionally by mule deer or pronghorn.</p> <p>Bighorn sheep are found only in steep badlands terrain along the Little Missouri River and are unlikely to occur on any easement refuges.</p>	<p>Under this alternative, we estimate less than five elk total may be harvested on easement refuges, which would be less than 2 percent of the 2019 statewide harvest and therefore would be a minor negative impact. In recent years, NDGFD had been receiving increased sighting reports and nuisance complaints within the Turtle Mountain (Bottineau and Rolette counties) (Armor et al. 2019). Although the overall impact to elk populations would be expected to be negligible (see above), the ability of individual landowners to permit hunting on land they own within the easement refuges may provide a minor positive benefit by reducing crop damage or other elk nuisance occurrences on a site specific basis.</p> <p>In 2018, 294 moose were harvested within the state (NDGFD 2019c). Success for moose hunters historically runs above 90 percent (NDGFD 2019d). Given that most easement refuges are not optimal moose habitat, it is unlikely that more than one or two animals might be harvested on these lands. This would be less than 1 percent of the statewide harvest and therefore would be a negligible impact.</p> <p>A mule deer buck license remains one of the most difficult licenses to draw, but hunter success for mule deer buck hunters was 81 percent in 2018. Similarly, 792 pronghorns were harvested statewide with a success rate of 81 percent (NDGFD 2019d). Given that most of the easement refuges are outside the primary range of mule deer and pronghorn, it is unlikely that opening the refuges to hunting for these species would result in more than an occasional harvest of a transient animal. This would likely have little to no impact on the local or regional populations of mule deer or pronghorn.</p> <p>Likewise, bighorn sheep are found only in steep badlands terrain along the Little Missouri River. There are no easement refuges in this area and thus the proposed action would have no impact on bighorn sheep populations.</p> <p>Overall, harvest of resident game species on easement refuges individually would constitute a very minor and negligible percentage of the statewide harvest and would be well within the statewide harvest levels for these species' populations within the state. Therefore, this alternative would not directly impact sustainability of these species within the state.</p>	

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<p><b>Upland Game</b></p>		
<p>Pheasant, wild turkey, and sharp-tailed grouse are found statewide, although the northeast part of the state is considered secondary range (NDGFD 2019f).</p> <p>Ruffed grouse populations occur in the Turtle Mountains in the north central part of the state and in the Pembina Hills in the northeast. They are typically found in aspen forests with multi-aged stands of trees.</p> <p>Huns are found statewide, but the western half of the state is considered primary range.</p> <p>Tree squirrels are found in wooded or forested areas, including suburban/urban trees.</p>	<p>As described above for big game, opening easement refuges to hunting of upland game species would expand hunting opportunities by providing additional lands for hunting. This would negligibly contribute to an increase in harvest of game species as this would not significantly increase the number of hunters but would redistribute hunters and hunting pressure. Collectively, the Service estimates that there would be an average of 1,000 hunter use days annually on easement refuges. The actual number of hunter use days would vary based on which landowners choose to open their land to hunting.</p> <p>In 2018, more than 58,200 pheasant hunters harvested 327,000 roosters (up 6 percent) in 2018 compared to 58,300 hunters and 309,400 roosters in 2017 (NDGFD 2019g). If all the estimated 1,000 hunter use days on easement refuges were focused on ring-necked pheasant, and all hunters achieved the daily limit of three ring-necked pheasant, this would result in 3,000 pheasants harvested. This would be less than 1 percent of the statewide harvest. Not all hunters would be hunting ring-necked pheasant and not all who do hunt pheasant would be successful. Therefore, overall the impact on ring-necked pheasant of the proposed action would be negligible.</p> <p>In 2018, 1,797 turkeys were harvested in North Dakota (NWTF 2019). We estimate that less than 1 percent would be harvested as a result of opening easement refuges to hunting.</p> <p>Of the 48,761 acres encompassed by the easement refuges, approximately 550 acres, or 1 percent, may be suitable forest habitat for ruffed grouse (in the Turtle Mountains). We estimate that less than 20 hunter use days would be spent hunting for grouse and would result on a negligible impact to the overall population.</p>	<p>Under this alternative, the easement refuges would remain closed to upland game hunting. Thus, there would be no negative impacts to these wildlife populations. However, at the local level, some small game species such as rabbits, ground squirrels, porcupines, and tree squirrels may increase without hunting hunter harvest to reduce populations.</p> <p>However, this alternative would prohibit landowners from using hunting as a management tool to reduce numbers of rabbits, squirrels, beavers, porcupines, and other upland game species that may become a nuisance or cause damage, or both.</p>

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	<p>In 2018, hunters harvested 23,000 Hungarian partridge compared to 32,800 harvested in 2017 (NDGFD 2019g). If all the estimated 1,000 hunter use days on easement refuges were focused on Hungarian partridge, and all hunters achieved the daily limit of three partridge, this would result in 3,000 partridge harvested. This would be 13 percent of the statewide harvest. Not all hunters would be hunting partridge and not all who do hunt them would be successful. In addition, Hungarian partridges are birds that hunters primarily harvest incidentally while pursuing sharp-tailed grouse or pheasants. Therefore, the overall impact of the proposed action on Hungarian partridge would be negligible.</p> <p>Tree squirrel populations or harvest numbers in North Dakota are unknown. They are considered common in the state. Only 3 percent of the upland habitat on the easement refuges may be suitable for tree squirrels (forest, riparian, urban); therefore, it is expected that the proposed action would result in a negligible impact to tree squirrel populations regionally.</p>	
<b>Furbearers</b>		
<p>As with other resident game species, there is no information on occurrence of furbearers on the easement refuges. Badgers, beavers, coyotes, fox, mink, muskrats, raccoons, and weasels are found throughout the state and use a variety of habitats. It is likely that most easement refuges provide suitable habitat for these species (NDGFD 2019e).</p>	<p>Badgers, beavers, coyotes, raccoons, are common in North Dakota and as such, have a year-round open season. Mink, muskrat and weasels also have stable populations. Currently, there is a year-round season for fox. Red fox numbers remain low throughout the state (NDGFD 2019d). While these species may be hunted, except for coyotes and red fox, they are more likely to be harvested through trapping. We expect less than 100 coyotes and less than 20 fox to be harvested annually on easement refuges. Therefore, we expect that opening the easement refuges to hunting of these species would have a negligible impact on populations.</p>	<p>Under this alternative, the easement refuges would remain closed to upland game hunting. Thus, there would be no negative impacts to these wildlife populations. However, at the local level, some small game species such as rabbits, ground squirrels, porcupines, and tree squirrels may increase without hunting hunter harvest to reduce populations.</p>

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<p>Bobcats are primarily found in the badlands region, but also regularly occur along streams and rivers in southwestern North Dakota (NDGFD 2019e).</p> <p>Mountain lions inhabit the badlands and Missouri River breaks regions of North Dakota. However, because they can travel great distances, they have turned up in all parts of North Dakota (NDGFD 2019e).</p>	<p>The primary habitat for bobcat and mountain lion is the Missouri River breaks and the Little Missouri Badlands. This is generally outside the area of the easement refuges. Except Sunburst, Springwater and Lake Patricia are near the river breaks area in the south central part of the state. Bobcats and mountain lions prefer rugged or wooded habitats that afford them the ability to stalk prey, which is very limited on these refuges (less than 10 acres). We would expect only the occasional, transient bobcat or mountain lion on the easement refuges; therefore, the likelihood of harvest would be nearly zero.</p>	<p>However, this alternative would prohibit landowners from using hunting as a management tool to reduce numbers of rabbits, squirrels, beavers, porcupines, and other upland game species that may become a nuisance or cause damage, or both.</p>
<p><b>Other Species</b></p>		
<p>Most of the refuges have suitable habitat for skunk, porcupine and rabbits. Depending on population cycles and environmental conditions, these species would be expected to occur.</p> <p>Black-tailed prairie dogs occur in two distinct population complexes in North Dakota: (1) the Little Missouri National Grasslands complex; and (2) the Standing Rock complex, which includes Sioux County and portions of Grant and Morton Counties. This includes Pretty Rock and Lake Patricia easement refuges (NDGFD 2007).</p>	<p>No current data on skunk, black-tailed prairie dogs, ground squirrels, or rabbit populations exist for the easement refuges. Except for prairie dogs, most of the refuges have suitable habitat, and depending on population cycles and environmental conditions, these species would be expected to occur. Harvest is regulated by the “law of diminishing returns.” During periods of lower populations, harvest success declines and hunters lose interest. The result is lower harvest rates, which protect the breeding stock during unfavorable environmental conditions. In addition, small game species have extremely high reproductive potentials, enabling them to recover rapidly from even very low densities when favorable conditions return (WGFD 2007). There would be mortality to these species on the refuges; however, this would have negligible impact to the overall population.</p>	<p>Under this alternative, the easement refuges would remain closed to upland game hunting. Thus, there would be no negative impacts to these wildlife populations. However, at the local level, some small game species such as rabbits, ground squirrels, porcupines and tree squirrels may increase without hunting hunter harvest to reduce populations.</p>

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<p>Richardson’s ground squirrels are found only east of the Missouri River in North Dakota. Portions of Mclean, McHenry, Pierce, Eddy, and Foster Counties are key areas for this species because of the larger tracts of intact prairie.</p>		<p>However, this alternative would prohibit landowners from using hunting as a management tool to reduce numbers of rabbits, squirrels, beavers, porcupines and other upland game species that may become a nuisance or cause damage, or both.</p>
<p><b>Other Wildlife</b></p>		
<p>Easement refuges support a diverse population of wildlife species found in North Dakota, including game and nongame species, reptiles, amphibians, and invertebrates, which are important contributors to the overall biodiversity on the refuges and across the ecosystem.</p> <p>Songbirds, raptors, and rails breed at the easement refuges, whereas shorebirds and waterfowl primarily utilize easement refuges as migratory habitat—feeding and resting areas. Migrant waterfowl concentrations on easement refuges are highest from late October through early December. These sites provide a valuable sanctuary for these species.</p>	<p>Hunting migratory birds and other nongame wildlife would not be open; therefore, there would be no direct impact to these species.</p> <p>All wildlife species occurring on easement refuges may be indirectly impacted by disturbances due to hunting activities of resident game species in the uplands. Fall migrating waterfowl are likely to be most impacted as they are the most common nongame wildlife on the easement refuges during hunting season. However, spring turkey hunting may affect some early arriving breeding birds. Turkey hunters are typically low impact, move very quietly, and typically hunt during the morning. Indirect impacts would typically include displacement due to the activities of hunters, resulting in short-term dispersal of individuals. It is assumed that displaced wildlife would reoccupy disturbed sites following hunter departure. However, because the number of hunters dispersed over the acres that would be open (up to 48,761) is relatively small, these interactions would be expected to be infrequent. These disturbances would be limited, dispersed, and of short duration. Therefore, there would be minor indirect impacts to all species.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no direct or indirect impacts to wildlife species on these sites due to new hunting or fishing. However, if some populations of resident game, such as deer, become overpopulated on an easement refuge, this can result in habitat destruction and increase the potential for outbreak of wildlife disease, malnutrition, and starvation in deer during severe winters (see Table 1, Resident Big Game).</p>

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<p>Other wildlife species also utilize both the upland and the wetland portions of easement refuges as part of their annual life cycles, including breeding, cover, water, and food.</p>	<p>All wildlife species occurring on easement refuges may be indirectly impacted by disturbances due to fishing activities, such as boat use, on wetland or aquatic habitat. Indirect impacts would typically include displacement due to the activities of anglers, resulting in short-term dispersal of individuals. Waterfowl may be particularly sensitive to these disturbances, although disturbances would be limited, dispersed, and of short duration. Disturbance of waterfowl may cause permanent dispersal from valuable sanctuary sites, resulting in lower bird densities in localized areas. This impact would be reduced on the easement refuges by enforcing boat closures during the regular North Dakota waterfowl hunting season. Other non-migratory bird species would be negligibly impacted.</p>	<p>The dead deer may attract higher numbers of predators. The increase in predators may lead to increased predation of nesting migratory and resident birds. Currently, fishing on three of the easement refuges is not known to have impacts on other wildlife.</p>
<p><b>Fish</b></p>		
<p>Statewide game fish species include bluegill, burbot, channel catfish, chinook salmon, white crappie, black crappie, largemouth bass, muskellunge (pure and hybrid), northern pike, paddlefish, sauger, saugeye, smallmouth bass, sturgeon (pallid, shovelnose, and lake), trout (brown, cutthroat, lake, and rainbow), walleye, white bass, yellow perch, zander, whitefish, cisco, bullhead, drum, buffalo, carp, and goldeye. The Service does not survey fish populations on easement refuges.</p>	<p>The NDGFD regulations determine season, time, method of take, and limits in order to maintain sustainable populations of fish within the state. Opening easement refuges to fishing would expand fishing opportunities by providing additional waters for fishing and would negligibly contribute to an increase in harvest of fish. We expect that the proposed action would not significantly increase the number of anglers but would redistribute anglers and fishing pressure. The Service estimates that there would be an average of 1,000 angler use days annually on easement refuges, which would be a small percentage of total statewide fishing effort. In 2018, 133,000 fishing licenses were sold in North Dakota. Statewide, if each of the anglers only fished one day, the fishing pressure on the easement refuges would be less than 1 percent of the total. Most anglers fish much more often, so the impact due to opening easement refuges to fishing would be even less (NDGFD 2019a). The number of angler use days on the easement refuges would vary based on which landowners choose to open their land to fishing.</p>	<p>Fishing would not be opened on easement refuges that are currently closed; therefore, there would be no additional direct or indirect impacts to fish on these sites. Because several easement refuge wetlands have been stocked with game fish species in the past by the NDGFD on public lands and illegal stockings by private individuals on private lands, it is likely that some fishing harvest currently occurs on a small percentage of lakes on the easement refuges that are currently closed.</p>

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<p>Most of the wetlands on easement refuges cannot harbor or sustain fisheries. Easement refuges with larger, semi-permanent wetlands may harbor fisheries or have the potential to harbor fisheries. Several easement refuge wetlands have been stocked with game fish species in the past by the NDGFD on public lands as well as illegal stockings by private individuals on private lands.</p>	<p>In addition, most of the semi-permanent wetlands that harbor fisheries on easement refuges are stocked by the NDGFD or stocked illegally by the public, resulting in new fisheries that provide new angling opportunities and can relieve pressure on other fisheries within the state while they exist. Walleye, yellow perch, northern pike, and bluegill are some of the most commonly stocked fish species. However, these wetlands also periodically winter kill or dry up and only serve as opportunistic fisheries that are not sustainable long-term. This would have a short-term, negative impact on the local fish population at these sites.</p> <p>Burbot, paddlefish, and pallid sturgeon are statewide species of concern (Dyke et al. 2015); however, these species are found in large rivers (Missouri, Red, and Yellowstone) and do not occur on any of the easement refuges. Therefore, there would be no impact to these species.</p>	
<p><b>Threatened and Endangered Species and Other Special Status Species</b></p>		
<p>The current status of threatened and endangered (T&amp;E) species on easement refuges is unknown as these sites are mainly composed of privately-owned land (93 percent).</p>	<p>The proposed action would not directly or indirectly impact (neither negatively nor beneficially) individuals of listed species or critical habitat for Dakota skipper, piping plover, or Poweshiek skipperling.</p> <p><b><i>Whooping crane</i></b></p> <p>Whooping cranes migrate through North Dakota in the spring and fall using shallow wetlands for roosting and stopover sites (Dyke et al. 2015). Whooping cranes are observed annually in small numbers throughout North Dakota, but they do not nest in the state (Dyke et al. 2015). Hunting and fishing may temporarily disturb whooping cranes due to the presence or proximity of humans, but it would not affect whooping crane populations.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no new direct or indirect impacts to T&amp;E species or critical habitats. Fishing that is currently open on three of the easement refuges is not known to have any impacts on T&amp;E species.</p>

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<p>The following T&amp;E species are found within the state of North Dakota:</p> <ul style="list-style-type: none"> <li>• Northern long-eared bat (Threatened)</li> <li>• Least tern (Endangered)</li> <li>• Piping plover (Threatened)</li> <li>• Red knot (Threatened)</li> <li>• Whooping crane (Endangered)</li> <li>• Pallid sturgeon (Endangered)</li> <li>• Dakota skipper (Threatened)</li> <li>• Poweshiek skipperling (Endangered)</li> <li>• Western prairie fringed orchid (Threatened)</li> </ul> <p>The following critical habitats are found within the state of North Dakota:</p> <ul style="list-style-type: none"> <li>• Dakota skipper</li> <li>• Piping plover</li> <li>• Poweshiek skipperling</li> </ul>	<p><b><i>Dakota skipper</i></b></p> <p>The critical period for potential disturbance to Dakota skippers is during the summer flight period, which generally occurs between mid-June and mid-July in North Dakota (McCabe 1981; USFWS 2018). Most hunting seasons would not overlap with Dakota skipper flight periods; therefore, there would be no negative impacts by those hunting activities. Most hunting seasons begin in the fall after flower resources have senesced, providing little opportunity for negative impacts to Dakota skipper critical habitat. While some furbearer hunting seasons are open year-round, hunters would be dispersed across the state and hunting efforts are not concentrated in the summer, causing minimal foot traffic at each easement refuge. Any impact to Dakota skippers or their habitat would be negligible. Fishing would occur on lakes or other large bodies of water; there would be no disturbance to Dakota skippers as their critical habitat is high-quality mixed and tallgrass prairie.</p> <p><b><i>Piping plover</i></b></p> <p>Piping plovers nest on exposed, gravelly beaches adjacent to alkali wetlands in the spring and summer months in North Dakota, migrating south from mid-July through early September (USFWS 2002). Piping plover sightings are uncommon in North Dakota, as much of their nesting habitat has been lost or altered (Dyke et al. 2015). Hunting and fishing would not alter gravelly nesting beaches of piping plovers. Most hunting activities would occur after nesting season and hunting of furbearers during nesting season would be minimal and dispersed across the state. It is also unlikely that hunters would traverse piping plover nesting beaches; therefore, hunting would not affect piping plovers or their critical habitat. Fishing activity would be concentrated on the water as there are limited shore fishing opportunities. There would be little to no disturbance to plovers using any exposed shoreline and any slight disturbance would not negatively affect piping plover populations or nesting success.</p>	

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	<p><b><i>Red knot</i></b></p> <p>Red knots typically use shallow wetlands and alkaline and freshwater lakes for roosting, feeding, and stopover sites during migration through North Dakota in mid-May and mid-September to October (Dyke et al. 2015). They do not nest in North Dakota; therefore, disturbance to red knots by hunting and fishing on refuges would be minimal or non-existent. While red knots could be migrating through North Dakota in the fall at the beginning of hunting seasons, they are rarely recorded in the state; hunting activities would not interfere with their migration. Similarly, fishing occurs on deeper lakes, and red knots typically use shallow wetlands; therefore, fishing would not impact red knots.</p> <p><b><i>Northern long-eared bat</i></b></p> <p>Northern long-eared bats typically use riparian areas and other forest habitat. This habitat is used spring through fall for foraging and roosting and maternity sites. Large trees with slipping bark are an important component of this habitat that may be used by the northern long-eared bat. Hunting and fishing do not involve the use or destruction of large roost tree habitat; therefore, northern long-eared bats would not be affected by hunting on refuges.</p> <p><b><i>Pallid sturgeon</i></b></p> <p>Pallid sturgeon are slow-growing fish which feed at the bottom of large, undisturbed rivers (USFWS 2014). While the species' historic range includes the Missouri River, they are scarce in this area. None of the easement refuges contain large rivers; therefore, there would be no effect of hunting or fishing on easement refuges on pallid sturgeon.</p>	

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	<p><b><i>Least tern</i></b></p> <p>Least terns may nest on exposed gravelly beaches during low water years along the Missouri River system (Dyke et al. 2015). Least terns may occur in North Dakota from mid-May to mid-August with the breeding season from mid-June to mid-July (Dyke et al. 2015). Most hunting seasons occur after least tern migration, and there are no easement refuges along the least tern’s primary range of the Missouri River system; hunting and fishing on easement refuges would likely not affect least terns in any way.</p> <p><b><i>Poweshiek skipperling</i></b></p> <p>The Poweshiek skipperling lives in native undisturbed prairie and the primary threat to its survival is habitat loss (Dyke et al. 2015). Its North Dakota population was historically small and fluctuating, and the species is currently considered extirpated from the state (Selby 2010). The summer flight period for the Poweshiek skipperling is from late June to mid-to-late July (Swengel and Swengel 2012). Most hunting seasons would not overlap with Poweshiek skipperling flight periods and any summer hunting would be minimal; therefore, there would be no negative impacts on the species. Hunting seasons primarily begin in the fall after flower resources have senesced, providing little opportunity for negative impacts to Poweshiek skipperling critical habitat. Hunters would also be dispersed across the state, causing minimal foot traffic at each easement refuge. Fishing would occur on lakes or other large bodies of water; there would be no disturbance to Poweshiek skipperlings as their critical habitat is undisturbed prairie.</p>	

<b>Affected Resources</b>	<b><u>Alternative A (Proposed Action)</u></b>	<b><u>Alternative B (No Action)</u></b>
	<p><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
	<p><b><i>Western Prairie Fringed Orchid</i></b></p> <p>The western prairie fringed orchid is native to tallgrass prairie and is primarily threatened by habitat loss (Bjugstad and Fortune 1989). It is vulnerable to damage during its growth, inflorescence, and seed production, which occur between June and August (Bleho et al. 2015). Most hunting seasons do not occur during these months, and the species is dormant between October and March. Hunting during the summer is minimal, and it is dispersed across the state and refuges; therefore, there would be little to no effect of hunting on the western prairie fringed orchid. Fishing would not occur in tallgrass prairie; there would be no effect of fishing on the western prairie fringed orchid.</p>	
<b>Wetland Habitat</b>		
<p>Most of the wetland habitat types within the limited-interest refuges are classified as lakes, totaling 13,000 acres. Impoundment habitat accounts for 4,000 acres. Impoundment habitats vary from deep water lakes to seasonal, temporary wetlands. Riverine habitat is limited, totaling 176 acres. These three habitat types are areas in which the Service has the right to control uses and manage for wildlife. Naturally occurring wetland habitats including semi-permanent, temporary, and seasonal wetlands, totaling 3,000 acres.</p>	<p>The act of hunting may result in extremely minimal trampling of vegetation and soil as hunters typically spread out on the landscape and do not necessarily walk/hike in the same specific locations. In cases where hunters may use the same access points, trails may become established, resulting in permanent disturbance or damage to vegetation. The acreage of these areas would be minimal, typically less than 0.1 acres. Hunter access would incur negligible direct or indirect impacts to wetland habitat.</p> <p>Bank and trail erosion from launching boats for angling and foot traffic from anglers may affect or alter wetland vegetation and habitat through direct trampling of vegetation and by increasing aquatic sediment loads in wetlands. Levels of use would be minimal and would incur negligible adverse effects on vegetation, soil, and wetland habitat.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no new direct or indirect impacts to wetland habitats. Most of the impoundments have not been historically managed for maximum wetland habitat production, primarily due to a lack of staff, funding, and management capability to implement any water level management programs. Many areas have been kept at higher than desirable water levels for many years (USFWS 2006).</p>

<p style="text-align: center;"><b>Affected Resources</b></p>	<p style="text-align: center;"><b><u>Alternative A (Proposed Action)</u></b></p> <p style="text-align: center;"><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p style="text-align: center;"><b><u>Alternative B (No Action)</u></b></p> <p style="text-align: center;"><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<p>Vegetation varies and includes submergent and emergent aquatic plants, hydric and mesic grasses and forbs, scrub/shrub plants, and hydric tree species.</p>		
<p><b>Upland Habitat</b></p>		
<p>The upland habitats on easement refuges are variable and may consist of individual or mixed stands of agricultural cropland, developed land, native and non-native grasslands, shrub/scrub land, and forest. Plant species on these areas are highly variable and representative of the ecotype in which each site occurs.</p> <p>Except for hunting, the Service does not control activities that occur in upland areas. Construction, farming, grazing, and economic developments have occurred on many of the refuges before and since establishment. The water features of these refuges have made them attractive for residential and recreational development and for economic endeavors such as farming, livestock rearing, fertilizer plants, and bait shops. Other upland areas remain intact, including large areas of native prairie.</p>	<p>The act of hunting may result in extremely minimal trampling of vegetation and soil as hunters typically spread out on the landscape and do not necessarily walk or hike in the same specific locations. In cases where hunters may use the same access points, trails may become established, resulting in permanent disturbance or damage to vegetation. The acreage of these areas would be minimal, typically less than 0.1 acres. Hunter access would incur negligible direct or indirect impacts to upland habitat.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no new direct or indirect impacts to upland habitats from these activities. Varying degrees of negative impacts from other current activities and developments in the uplands on easement refuges include a loss of wildlife habitat and an increase in disturbance. Relatively large remaining tracts of native prairie are not protected from plowing or other impacts except for the economic value the land has for grazing and haying.</p>

Key: NDGFD = North Dakota Game and Fisheries Department; NWR = National Wildlife Refuge; T&E = threatened and endangered

**Table 2. Affected Visitor Use and Experience and Anticipated Direct and Indirect Impacts of the Proposed Action and Any Alternatives.**

<p><b>Affected Resources</b></p>	<p><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p><b><u>Alternative B (No Action)</u></b></p> <p><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<p>To date, most of the limited-interest refuges have remained closed to all public use. They historically have been closed to hunting. All but three of the easement refuges are closed to fishing.</p> <p>Other activities, such as environmental education and interpretation opportunities, wildlife observation, and photography programs, are nonexistent on the easement refuges.</p> <p>Again, 93 percent of the easement refuges are private lands so access must be granted by the landowner for an activity to occur.</p>	<p>We, the Service, estimate easement refuges collectively would have 1,000 annual hunter use days and 1,000 annual angler use days. The actual number would depend on if private landowners allow access to their lands for hunting and fishing. Opening easement refuges to hunting of resident big game species and fishing would expand hunting and fishing opportunities which would have a negligible to minor positive benefit to the public.</p> <p>During the hunting season, there is the potential for conflict between hunters and anglers. However, since angler activity would primarily be focused on the lakes and other water bodies, and hunters would be hunting upland game, impacts would be expected to be negligible. In addition, on most of the refuges, boating would be closed during the regular North Dakota waterfowl season. Because most fishing on these refuges occurs by boat, this would reduce potential conflicts during this time.</p> <p>Other public uses are not known to occur on the easement refuges; therefore, we would expect no direct impact from the proposed action.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no direct or indirect impacts to visitor use and experience.</p>

Key: NWR = National Wildlife Refuge

**Table 3. Affected Cultural Resources and Anticipated Direct and Indirect Impacts of the Proposed Action and Any Alternatives.**

<p><b>Affected Resources</b></p>	<p><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p><b><u>Alternative B (No Action)</u></b></p> <p><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<p>The status of cultural resources on easement refuges is unknown as most of these lands are under private ownership (93 percent).</p>	<p>Because of the temporary and superficial use of refuge habitats during hunting and fishing activities, there would be no direct or indirect impacts to cultural resources under this alternative from visitors engaged in hunting and fishing activities, as delineated in the hunting and fishing plan. The Service has determined that, in accordance with the implementing regulations for section 106 of the National Historic Preservation Act (36 CFR 800) "... the undertaking is a type of activity that does not have the potential to cause effects on historic properties, assuming such historic properties were present, [and] the agency official has no further obligations under section 106 or 36 CFR 800.3(a)(1)."</p>	<p>Under this alternative, hunting and fishing would not be opened on easement refuges that are currently closed. There would be no change to existing environmental conditions; subsequently, no direct or indirect impacts to cultural resources would be expected under this alternative.</p>

Key: CFR = Code of Federal Regulations; NWR = National Wildlife Refuge

**Table 4. Affected Refuge Management and Operations and Anticipated Impacts of the Proposed Action and Any Alternatives.**

<p><b>Affected Resources</b></p>	<p><b><u>Alternative A (Proposed Action)</u></b>  <i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p><b><u>Alternative B (No Action)</u></b>  <i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<p><b>Land Use</b></p>		
<p>On the easement refuges, the Service has the right to regulate:</p> <ul style="list-style-type: none"> <li>• all hunting and trapping activities;</li> <li>• water level management of impoundments;</li> <li>• management and regulation of any activities that occur on the impoundments or main body of water to minimize or eliminate negative impacts on migratory birds and other wetland-dependent wildlife.</li> </ul> <p>The Service would not regulate the following uses:</p> <ul style="list-style-type: none"> <li>• any development or other activities (other than hunting) that occur on the uplands;</li> <li>• management of naturally occurring wetlands.</li> </ul> <p>Most of the land comprising easement refuges is privately held (93 percent) and access is controlled by the individual landowners.</p> <p>Construction, farming, grazing, and economic developments have occurred on many of the refuges before and since establishment. The water features of these refuges have made them attractive for residential and recreational development and for economic endeavors such as farming, livestock rearing, fertilizer plants, and bait shops.</p>	<p>Under this alternative, there would be no change to land uses on the easement refuges other than hunting and fishing. On private parcels, public access is controlled by the landowners and is subject to the State of North Dakota’s hunter and angler access laws. It would be the responsibility of the hunters and anglers to park safely and legally and to be aware of what landownership they are on.</p> <p>Hunters and anglers’ access to private lands within easement refuges would be under the control of the private landowner; therefore, any conflicts with other land uses can be addressed by the landowner to eliminate or reduce any potential impacts.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no new direct or indirect impacts to land use.</p>

<p style="text-align: center;"><b>Affected Resources</b></p>	<p style="text-align: center;"><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i></p>	<p style="text-align: center;"><b><u>Alternative B (No Action)</u></b></p> <p><i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i></p>
<b>Administration</b>		
<p>Current easement refuge management expenses include staff resources, boundary posting, signage, and law enforcement program staffing</p>	<p>Estimated costs to implement this alternative are \$40,000.00 above the current level of funding needed to manage all 41 easement refuges across the state.</p> <p>This alternative would also require an increase of 5 percent of the current law enforcement program staff time for overseeing and implementing the proposed action. This would minimally detract from other law enforcement duties. Management program staff time would not increase from current levels.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no new direct or indirect impacts to easement refuge administration. Management activities would continue at the current level.</p>

Key: NWR = National Wildlife Refuge

**Table 5. Affected Socioeconomics and Anticipated Direct and Indirect Impacts of the Proposed Action and Any Alternatives.**

<b>Affected Resources</b>	<b><u>Alternative A (Proposed Action)</u></b> <i>Forty-one limited-interest NWRs (easement refuges) in North Dakota would open to hunting of resident game species, excluding migratory birds, and 38 of the same easement refuges to fishing in accordance with the state and federal laws and regulations, providing a recreational experience to the general public while maintaining a sustainable population of resident wildlife and fish.</i>	<b><u>Alternative B (No Action)</u></b> <i>Easement refuges in North Dakota would remain closed to all hunting. Fishing would remain open on Ardoch, Rose Lake, and Silver Lake NWRs and closed on the 38 other easement refuges.</i>
<b>Local and Regional Economics</b>		
<p>Areas surrounding the limited-interest refuges are typically characterized as rural with an economy and land use based on agriculture. Information on local and regional economics associated with easement refuges is presented in the Comprehensive Conservation Plan and Environmental Assessment for North Dakota Limited-interest NWRs (USFWS 2006) and the Tewauckon NWR Comprehensive Conservation Plan (USFWS 2000).</p>	<p>The Service estimates that there would be an average of 1,000 hunter and 1,000 angler use days annually on easement refuges under this alternative. The Service further estimates that an average of half of these visitors would be residents; therefore, expenditures from out of area visitors would be relatively low.</p> <p>The small number of additional hunters and anglers expected to participate in these activities on easement refuges would likely support local economies through purchases related to hunting and fishing such as fuel, meals, lodging, ammunition, and bait. Relative to the size of local economies, these effects would be negligible.</p>	<p>Hunting and fishing would not be opened on easement refuges that are currently closed; therefore, there would be no new direct or indirect impacts to local and regional economies.</p>
<b>Environmental Justice</b>		
<p>Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.</p>	<p>Within the spirit and intent of Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, no actions being considered in this Environmental Assessment would disproportionately place any adverse environmental, economic, social, or health effects on minority or low-income populations when compared with the public.</p> <p>The Service is committed to ensuring that all members of the public have equal access to the Nation's fish and wildlife resources, as well as equal access to information that would enable them to take part meaningfully in activities and policy shaping.</p>	<p>Same as the Proposed Action Alternative.</p>

Key: NWR = National Wildlife Refuge

### 3.3 Cumulative Impact Analysis

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7).

**Table 6. Anticipated Cumulative Impacts of the Proposed Action and Any Alternatives.**

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
<b>Wildlife – Resident Game Species and Fish</b>	
<p>The proposed easement refuge hunting and fishing program rules would conform to hunting and fishing regulations in the State of North Dakota. By maintaining hunting and fishing regulations that are the same as the state, the Service is ensuring that seasons are maintained that support management on a regional and statewide basis. Such an approach also provides consistency with statewide population status and objectives</p>	<p>The Service would consistently coordinate with the NDGFD regarding the easement refuge hunting and fishing program. The Service would defer to the NDGFD to monitor populations of these species and implement any adjustments to future harvests as needed under the existing state regulations to ensure sustainable populations and minimize cumulative impacts. The total impacts to statewide populations would be dependent on the number of landowners who choose to grant access to their land for hunting and fishing.</p> <p>NDGFD sets deer tag numbers based on factors such as population surveys and the previous year’s hunting success (NDGFD 2019h). Population and harvest data indicate the state’s deer population is stable to increasing but still below management goals in most eastern hunting units. High quality deer habitat is not as abundant as in the past, which limits the potential for population recovery. The loss of grass cover enrolled in the Conservation Reserve Program as well as tree cover has impacted deer populations. For example, deer numbers in northeastern North Dakota have not responded to more favorable winter weather conditions and reduced harvest. NDGFD this year offered 65,500 deer gun tags, up from 55,150 in 2018 and the highest number since 2012. Deer gun licenses bottomed out at 43,275 in 2015, largely the result of consecutive severe winters from 2009 through 2011 and have been on a gradual climb ever since (NDGFD 2020). NDGFD is likely to fall short of its five-year goal of 75,000 deer gun licenses while maintaining the 70 percent success rate that is the benchmark for deer hunters in the state (NDGFD 2019h). In 2018, North Dakota hunters last harvested 31,350 deer during the gun season with a success rate of 64 percent (NDGFD 2019b).</p> <p>In 2019, NDGFD increased licenses for elk and moose in response to growing populations.</p> <p>Mule deer in North Dakota’s badlands continue to show signs of recovery following the severe winters of 2008–2009 through 2010–2011, which resulted in deer numbers declining by nearly 50 percent from population levels in 2007. The 2019 mule deer spring index was 20 percent lower than 2018, but 14 percent above the long-term average (NDGFD 2019d).</p>

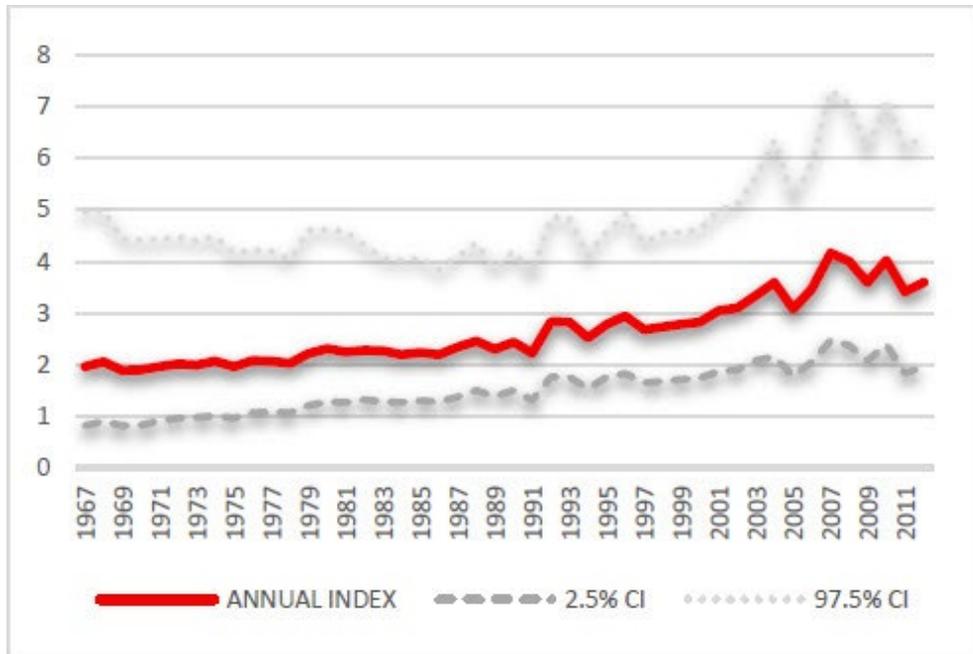
Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
	<p>While another year of a stable to increasing population is encouraging, mule deer in the badlands face many challenges, such as encroachment of juniper in mule deer habitat, direct and indirect habitat loss due to energy development, predators, and weather conditions (NDGFD 2019d).</p> <p>In 2019, the pronghorn population increased to just over 9,800 animals, which is the highest estimate since 2009. Pronghorn have slowly recovered since 2013, following the severe winters of 2008–2009 through 2010–2011, which resulted in numbers declining by 75 percent. A combination of milder winter conditions since 2010–2011, closed seasons from 2010–2013, and improved fawn production and survival since 2013 have resulted in the population reaching a level that is able to support a higher harvest. NDGFD plans to continue a conservative harvest strategy to provide hunting opportunities, while encouraging population growth (NDGFD 2019d).</p> <p>As discussed in Table 1, annual big game harvest on easement refuges would be expected to be less than 2 percent of the statewide total for all species. Thus, a negligible cumulative impact on statewide big game populations would be expected.</p> <p><b><i>Upland Game</i></b></p> <p>Across the state, populations of upland game birds are cyclical. Environmental conditions, particularly drought, can have an impact on total numbers (NDGFD 2019d).</p> <p>In the 1980s and early 1990s, Hungarian partridge were plentiful in North Dakota, but as farming practices changed and weather patterns shifted from a dry to a predominately wet cycle, partridge populations responded negatively. Over the past five years, North Dakota’s partridge population has continued to decline.</p> <p>Sharp-tailed grouse harvest in 2018 remained near 20-year lows. Unfortunately, the 2018 hunter reports and 2019 spring surveys have only shown slight increases since the drastic population decline in 2017. Currently, the highest sharp-tailed grouse densities occur in the management district that follows the Missouri River from Montana to South Dakota. The lowest densities have been in the far eastern part of the state.</p> <p>Although rather common in North Dakota, this species is showing a slight decrease in population range-wide (Dyke et al. 2015). It is estimated as much as one third of the entire population resides in the state, making North Dakota part of its core range. PIF identifies the Sharp-tailed grouse as a Regional Stewardship Species and a U.S.-Canada Stewardship Species. The breeding bird survey trend from 1967–2011 for this species is shown in Figure 2.</p> <p>PIF Global Population Estimate: 600,000  PIF North American Population Estimate: 600,000  PIF North Dakota Population Estimate: 170,000</p>

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
	<p>The North Dakota Game and Fish Department and several other federal and non-governmental organizations conduct annual surveys counting the number of birds present during the breeding season. Statewide, 2,267 sharptails were observed on spring dancing grounds this year compared to 2,088 in 2018 (NDGFD 2019i).</p> <p>The spring grouse census serves as relative indices of breeding populations and are largely representative of production and recruitment from the previous year. For sharptails, they can be used in combination with reproduction data—brood surveys are completed in late summer—to predict fall populations (Dyke et al. 2015).</p> <p>Overall, the upland game birds that may be harvested on the easement refuges each year would be less than 1 percent of the total harvest (see Table 1). This would be a negligible impact compared to the statewide harvest.</p> <p><b><i>Furbearers</i></b></p> <p>Across the state, furbearer populations are monitored by NDGFD and statewide harvest levels are adjusted accordingly.</p> <p>The bobcat and mountain lion population in southwestern North Dakota is stable (NDGFD 2019j). There is a small but increasing population of bobcats in extreme northeastern North Dakota. Coyotes were nearly absent from the state during the mid-1900s due to widespread use of poisons and aerial hunting. Since then, coyote numbers have rebounded, and they are currently one of the most abundant and commonly harvested furbearer in North Dakota. Although badger, mink, and raccoon numbers are up slightly in some regions in 2019, these species remain well below their long-term averages on a statewide level (NDGFD 2019d). Muskrats have yet to rebound after their numbers dipped back in 2013 (NDGFD 2019d). Similarly, spring surveys indicated decreases in beavers and skunks throughout most of the state (NDGFD 2019d). Although there are no population estimates available for tree squirrels in North Dakota, the harvest nationwide is estimated to be millions and the continental population is considered secure (NatureServe 2019).</p> <p>As described in Table 1, the harvest of furbearers on easement refuges under the proposed action would be expected to have a negligible negative impact on statewide populations.</p> <p><b><i>Other Species</i></b></p> <p>Across their range, black-tailed prairie dogs have experienced dramatic declines due to habitat loss. The most recent survey indicates that North Dakota has roughly 20,000 acres of occupied habitat (NDGFD 2007). The proposed action is unlikely to have an impact on overall black-tailed prairie dog numbers as almost all the easement refuges are located outside current black-tailed prairie dog range in the state.</p>

<b>Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment</b>	<b>Descriptions of Anticipated Cumulative Impacts</b>
	Richardson’s ground squirrels are locally abundant but have been designated a moderate level of conservation priority in the recent State Wildlife Action Plan (Dyke et al. 2015). There is some indication that there has been a decline of Richardson’s ground squirrels within North Dakota (Dyke et al. 2015). This, coupled with a lack of information on the species, makes them a conservation priority. Recreational shooting of Richardson’s ground squirrels may have a minor negative impact on populations at the local level, especially if combined with other impacts known to affect colonies such as poisoning and disease (Dyke et al. 2015).
<b>Hunter and Angler Access</b>	
North Dakota is 93 percent private land ownership. Under North Dakota access laws, private lands are open to hunting unless posted as closed. NDGFD manages the PLOTS program, which is an agreement between private landowners and NDGFD and allows walk-in public access for hunting on private land.	The total number of acres that would be accessible to the public for hunting and fishing on the easement refuges is unknown because public access is controlled by the landowner on private parcels. Less than 10 percent of the lands within easement refuges are public.  Even if all the easement refuges were opened to public access, the almost 49,000 acres would be minimal compared to open public and private lands in the state. Additionally, the state administers the PLOTS program where private landowners can receive financial compensation for allowing public access. This program currently has nearly 800,000 acres enrolled. Under current requirements of PLOTS, private parcels within the easement refuges may be ineligible for enrollment in the PLOTS program due to the legal constraints of the two programs. While the proposed action would result in increased access for hunters and anglers, the overall impact would likely provide a negligible benefit statewide.
<b>Development and Population Increase</b>	
North Dakota’s population decreased from its high of 680,000 in 1931 through 2010 and then, due to oil development, started climbing again to a new peak of 760,077 in 2018 (U.S. Census Bureau). Based on U.S. Census Bureau data, North Dakota is one of the least populated states, ranking 47 <sup>th</sup> in population size in 2018. Even with continued growth, population size alone would not significantly stress wildlife habitat and populations within the state. Development as a factor of population growth combined with extraction of natural resources and industry would likely result in negative cumulative impacts to resident game species and fish and their habitats.	Although there is no statewide development plan, the Service expects that continued development, particularly in the fossil fuel and agricultural industries combined with urbanization, would cumulatively impact resident game species and fish and their habitats over time. The predicted size of these impacts is unknown but would place stress on the ecosystem throughout the state, both through direct loss of habitat and indirect loss through fragmentation and degradation due to development. Since easement refuges are mainly composed of privately owned lands (93 percent), the Service has no control over development on the upland portion of the parcels. The Service does control use on some wetlands identified in the easement contract which would prevent development on these sites. The NDGFD is responsible for monitoring populations of these species, as related to the cumulative impacts of development and population increase, and implementing any adjustments to future harvests as needed, under the existing state regulations to ensure sustainable populations over time.

<b>Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment</b>	<b>Descriptions of Anticipated Cumulative Impacts</b>
<b>Use of Ammunition and Tackle</b>	
<p>There are no restrictions on using lead ammunition for hunting resident game or lead fishing lures on the easement refuges.</p>	<p>Research has indicated that lead can be present in gut piles left by deer hunters after field dressing. Bald eagles and other raptors feed on the gut piles and may ingest the lead, leading to poisoning. Similarly, lead fishing tackle can be ingested by waterfowl and other wetland bird species and may cause lead poisoning.</p> <p>Hunting and fishing on easement refuges would be expected to be less than one to two percent of the total harvest statewide (see Table 1). We, the Service, also expect that opening the refuges to hunting and fishing would not substantially increase harvest or hunter numbers but would more likely provide additional opportunities for current hunters and anglers. Therefore, the proposed action would likely introduce only small amounts of lead statewide, which would likely have a minor negative impact.</p>
<b>Climate Change</b>	
<p>Climate change, whether it results from anthropogenic or natural sources, would be expected to affect a variety of natural processes and associated resources. However, the complexity of ecological systems means that there is a tremendous amount of uncertainty about the impact climate change would have. The localized effects of climate change are still a matter of much debate. Current predictions suggest that North Dakota would experience more rainfall and heavier storms, which may increase flooding and runoff along with warmer average temperatures and hotter days (USEPA 2016). These changes may result in both positive and negative effects. Longer growing seasons may create agricultural opportunities as well as issues with invasive species. More rainfall may not only increase flooding but may also increase water-oriented recreational opportunities such as fishing and boating and may increase hydroelectric power generation. Extremely hot days and longer period of excessive heat can result in negative impacts to human, wildlife, and fish health.</p>	<p>While the impacts from climate change on wildlife and habitats are not certain, allowing hunting and fishing on easement refuges would not add to the cumulative impacts of climate change. The Service would work with the NDGFD to use an adaptive management approach for the hunting and fishing program on easement refuges, reviewing these programs annually and revising annually (if necessary). The Service’s hunting and fishing program can be adjusted to ensure that it does not contribute further to the cumulative impacts of climate change on resident game species and fish.</p>

Key: NDGFD = North Dakota Game and Fish Department; PIF = Partners in Flight; PLOTS = Private Lands Open to Sportsmen



**Figure 2. North Dakota Breeding Bird Survey Trend for Sharp-tailed Grouse. (Source: Dyke et al. 2015)**

### 3.4 Monitoring

The NDGFD is responsible for monitoring resident game and fish populations within the state and ensuring sustainable populations of these species through appropriate harvest strategies, rules, and regulations. The Service would work with the state, as needed, to monitor these species and promote any changes needed to harvest strategies, rules, and regulations to ensure sustainable populations on easement refuges as well as regionally, statewide, and nationally.

The Service would work with NDGFD to maintain compliance with hunting and fishing regulations using federal and state game wardens. Wardens would conduct routine field checks of hunters and anglers as needed.

### 3.5 Summary of Analysis

The purpose of this EA is to briefly provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact.

#### **Alternative A – Proposed Action Alternative**

As described above, this alternative would result in minor, short-term direct and indirect impacts on resident game species, other wildlife, fish, and their habitats. The Service believes that hunting of resident game species and fishing, with boating closed during the regular North Dakota waterfowl season, would not have a significant impact on regional or statewide wildlife and fish populations as the number harvested on easement refuges would be a tiny fraction of regional and statewide populations. In addition, overall populations would continue to be monitored by the NDGFD and future harvests would be adjusted as needed under existing state regulatory processes. Threatened and endangered species and their habitats would not be impacted. Easement refuges consist of a majority of privately owned lands (93 percent) and

conflicts with other land uses and users would be minimal, short duration, and controlled by individual landowners. This alternative would not result in any significant direct or indirect impacts to cultural resources due to the temporary and superficial use of easement refuge habitats during hunting and fishing activities. Administration costs are relatively minor and would necessitate an increase of five percent of the current law enforcement program staff time for monitoring hunting and fishing activities. Local economies would receive minor benefits from hunters and anglers purchasing items related to hunting and fishing. The Service is committed to ensuring that all members of the public have equal access to the Nation's fish and wildlife resources, as well as equal access to information that would enable them to take part meaningfully in activities and policy shaping; therefore, minority and low income populations would not be adversely effected.

The NDGFD is responsible for monitoring populations of resident game and fish and implementing any adjustments to future harvests as needed under the existing state regulations to ensure sustainable populations (<https://gf.nd.gov/>). Their action would prevent potential cumulative impacts from occurring due to hunting and fishing take, development, and population increase. All non-hunted wildlife species occurring on easement refuges may be impacted by disturbances due to hunting and fishing activities. Short-term disturbances may take place at the time of the action when hunting or fishing occurs on an individual easement refuge. In a single season, non-hunted wildlife may be disturbed multiple times; however, there are enough available habitat resources for them to relocate both on refuge and on adjacent lands; there would be minimal negative impacts. Long-term impacts of short-term disturbance would not likely occur and cumulative impacts would be negligible on non-hunted wildlife. The easement refuges would continue to support substantial populations of non-hunted wildlife under all alternatives. Therefore, at the local level, hunting and fishing on easement refuges adds minimally to cumulative impacts on non-hunted wildlife, and negligibly relative to statewide and regional populations.

The minimal use of lead ammunition and fishing tackle on easement refuges spread out across the state would be negligible and would not result in any cumulative impacts relative to lead poisoning of wildlife. Climate change may result in both positive and negative cumulative effects on resident game species and fish. The Service would work with NDGFD to adjust the hunting and fishing program on easement refuges to ensure that it does not contribute further to the cumulative impacts of climate change on resident game species and fish.

Alternative A is the Service's proposed action because it expands public hunting and fishing opportunities that would result in a minimal impact on physical and biological resources. Opening easement refuges to hunting and fishing as proposed under this alternative would be consistent with the purposes of the easement refuges and would meet the need of the Refuge System under the Improvement Act to provide for compatible, wildlife-dependent recreational opportunities while helping to fulfill Secretarial Orders 3447 and 3356. Based on the above analyses, the Service has determined that Alternative A, the Service's proposed action alternative, would not have any significant impact on the human environment.

### **Alternative B – No Action Alternative**

As described above, this alternative would not result in any new direct and indirect impacts on resident game species, other wildlife, fish, and their habitats. Similar to the proposed action alternative, threatened and endangered species and their habitats would not be impacted. No new

conflicts with other land uses and users would occur. This alternative would not result in any significant direct or indirect impacts to cultural resources. No new administration costs would be incurred. Local economies would not receive any new benefits from hunters and anglers purchasing items related to hunting and fishing. Minority and low income populations would not be adversely affected. No new cumulative impacts to resident game species and fish would occur.

Alternative B would not expand public hunting and fishing opportunities and would not meet the needs of the Refuge System under the Improvement Act to provide for compatible, wildlife-dependent recreational opportunities and would not help to fulfill Secretarial Orders 3447 and 3356.

### 3.6 List of Sources, Agencies, and Persons Consulted

<b>Name</b>	<b>Position</b>	<b>Organization</b>
Dan Severson	Project Leader	USFWS, Eastern North Dakota Wetland Management District
Matt Sprenger	Project Leader	USFWS, Eastern North Dakota Wetland Management District
Todd Frerichs	Project Leader	USFWS, Central North Dakota Wetland Management District
Barbara Boyle	Refuge Supervisor	USFWS, DOI Region 5
Aaron Mize	Hunt and Fish Coordinator	USFWS, DOI Regions 5 and 7
Bernardo Garza	Hunt and Fish Coordinator	USFWS, DOI Regions 5 and 7
Toni Griffin	LA/PMP	USFWS, DOI Regions 5 and 7
Ella Wagner	Conservation Planner	USFWS, Headquarters
Jeb Williams	Wildlife Division Chief	North Dakota Game and Fish Department

Key: DOI = Department of Interior; USFWS = United States Fish and Wildlife Service

### 3.7 List of Preparers

<b>Name</b>	<b>Position</b>	<b>Work Unit</b>
Frank Durbian	Project Leader	Northwest North Dakota Wetland Management District
Vanessa Fields	Wildlife Biologist	Division of Scientific Resources, Interior Regions 5 and 7

### 3.8 State Coordination

Discussions between the Service and the NDGFD regarding the opening of North Dakota easement refuges to hunting and fishing have taken place for several years during the annual coordination meetings between the two agencies that typically occur in mid-winter. The NDGFD was contacted during the development of the alternatives and asked to provide comments and suggestions in this regard. They responded with a letter stating their support in moving forward with opening easement refuges to hunting and fishing at the discretion of the private landowner.

The NDGFD was provided with an advanced copy of this draft EA on December 9, 2019 and invited to provide comments, prior to issuance of the draft EA and North Dakota Limited-interest Wildlife Refuges Hunting and Fishing Plan for public comment. The NDGFD provided a letter of support for the draft EA and Hunting and North Dakota Limited-interest Wildlife Refuges Hunting and Fishing Plan on January 23, 2020.

### 3.9 Tribal Consultation

The Service mailed an invitation for comments to all Tribes potentially impacted by initiating an EA to open the Limited-interest Easement Refuges in North Dakota to hunting and fishing. The Service extended an invitation to engage in government-to-government consultation in accordance with Executive Order 13175.

### 3.10 Public Outreach

Comments from the public regarding the general concept of opening easement refuges to hunting and fishing and potential alternatives for this EA were solicited at five public meetings held across North Dakota during October and November 2019. A public notice advertising these meetings and contact information for comments was distributed statewide through the news media and posted on all the Wetland Management District web sites in North Dakota. Additionally, each landowner under an easement refuge contract was sent a letter soliciting comments. We plan to release this draft EA for review on all Wetland Management District websites in North Dakota for 30 days. Hard copies will also be available upon request.

### 3.11 Determination

This section will be filled out upon completion of any public comment period and at the time of finalization of the Environmental Assessment.

- The Service's action will not result in a significant impact on the quality of the human environment. See the attached "**Finding of No Significant Impact.**"
- The Service's action **may significantly affect** the quality of the human environment and the Service will prepare an Environmental Impact Statement.

Preparer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name/Title/Organization: \_\_\_\_\_

\_\_\_\_\_

Reviewer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name/Title: \_\_\_\_\_

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**APPENDIX A OTHER APPLICABLE STATUTES, EXECUTIVE ORDERS, AND REGULATIONS**

<b>Cultural Resources</b>	
National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470-470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810	The proposed action includes no ground-disturbing activities or other activities that might disturb undocumented paleontological, archaeological, or historic sites. No additional steps were required to comply with these laws.
<b>Fish and Wildlife</b>	
<p>Endangered Species Act of 1973, as amended, 16 U.S.C. 1531-1544; 36 CFR Part 13; 50 CFR Parts 10, 17, 23, 81, 217, 222, 225, 402, and 450</p> <p>Fish and Wildlife Act of 1956, 16 U.S.C. 742 a-m</p> <p>Migratory Bird Treaty Act, as amended, 16 U.S.C. 703-712; 50 CFR Parts 10, 12, 20, and 21</p> <p>Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Fed. Reg. 3853 (2001)</p>	<p>This Environmental Assessment evaluates effects on resident wildlife, fish, migratory birds, and their habitats to ensure conformance with these laws.</p> <p>A consultation pursuant to Section 7 of the Endangered Species Act was formerly conducted as part of this Environmental Assessment and hunting and fishing plan. A determination of “No Effect” was made for northern long-eared bats, least tern, piping plover, red knot, whooping crane, pallid sturgeon, Dakota skipper, Poweshiek skipperling, and western prairie fringed orchid, as the proposed alternative would not directly or indirectly impact (neither negatively nor beneficially) individuals of listed species or critical habitat for Dakota skipper, piping plover or Poweshiek skipperling.</p>

Key: CFR = Code of Federal Regulations; U.S.C. = U.S. Code

**APPENDIX B NORTH DAKOTA LIMITED-INTEREST NATIONAL WILDLIFE  
REFUGES COMPREHENSIVE CONSERVATION PLAN REVISION**



**United States Department of the Interior**

FISH AND WILDLIFE SERVICE  
681 Salyer Road  
Upham, ND 58789



In Reply Refer to:  
FWS/R6

**Memorandum**

To: Assistant Regional Director, Refuges

From: Project Leader, Northwest North Dakota Wetland Management District

Through: Refuge Supervisor, Prairie Zone

Subject: Request for Minor Revision to 2006 Comprehensive Conservation Plan for North Dakota Limited Interest National Wildlife Refuges

The Service is currently drafting a Hunting and Fishing Plan for North Dakota Limited Interest National Wildlife Refuges and associated Environmental Assessment for Hunting and Fishing on North Dakota Limited-interest National Wildlife Refuges. The 2006 Comprehensive Conservation Plan (CCP) for North Dakota Limited Interest National Wildlife Refuges covers 39 of these Easement Refuges and states under Goal 4. Visitor Services "Where compatible, and in cooperation with willing landowners, allow public fishing, hunting, trapping and other quality wildlife-dependent recreation opportunities that foster an appreciation and understanding of the management and resources of the Program and the System." Allowing "public" hunting and fishing, where compatible, is further referenced in several other portions of the CCP. I am proposing a minor revision to the CCP that will allow private landowners, who have lands under the jurisdiction of Easement Refuges, to control access for hunting and fishing on their lands. Specifically, I am proposing to revise Goal 4. Visitor Services to "Where compatible allow fishing, hunting, trapping and other quality wildlife-dependent recreation opportunities that foster an appreciation and understanding of the management and resources of the Program and the System." This change will align with private property rights in North Dakota while still providing additional potential hunting and fishing opportunities to the public as referenced in Secretarial Order 3356.

The National Wildlife Refuge System Improvement Act of 1997 and Service policy (Fish and Wildlife Service Manual chapters 602 FW 1 and 3) identify the need to periodically review and revise Comprehensive Conservation Plans. Specifically the Service Manual chapter 602 FW 3, (Comprehensive Conservation Planning Process) Section 3.2 states "We will revise the CCP every 15 years ... or earlier if monitoring and evaluation determine that we need changes to achieve planning unit purpose(s), vision, goals, or objectives".

INTERIOR REGION 5  
MISSOURI BASIN

KANSAS, MONTANA\*, NEBRASKA, NORTH DAKOTA,  
SOUTH DAKOTA

\*PARTIAL

INTERIOR REGION 7  
UPPER COLORADO RIVER BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

This is considered a minor CCP revision because it does not significantly change the management direction of the Easement Refuges. The change to Goal 4 Visitor Services does not change the overall intent of the CCP objectives. Compliance with the National Environmental Policy Act of 1969 (NEPA), meets the criteria for the following categorical exclusion: 516 DM 8.5 C(9) "Minor changes in existing master plans, comprehensive conservation plans, or operations, when no or minor effects are anticipated. Examples include minor changes in the type and location of compatible public use activities and land management practices."

This memorandum complies with the National Wildlife Refuge System Improvement Act of 1997, which states that the "Secretary shall ... revise the plan at any time if the Secretary determines that conditions that affect the refuge or planning unit have changed significantly." Examples of new information or changed conditions include but are not limited to the following: 1) changes in the acreage of a specific habitat type; 2) changes in water management or availability; 3) changes in the status of a listed species; 4) the need for changes to wildlife management or public use programs; 5) changes to Service policy; 6) the need to construct new facilities, and/or 7) changes in sea level or other climate related changes.

**Submitted By**

Project Leader:  - Acting 01/30/2020  
(Signature) (Date)

**Concurrence:**

Refuge Supervisor:  12-20-2019  
(Signature) (Date)

**Approval:**

Assistant Regional Director, Refuges:  2/3/2020  
(Signature) (Date)

# APPENDIX C TEWAUKON COMPREHENSIVE CONSERVATION PLAN REVISION



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
681 Salyer Road  
Upham, ND 58789



In Reply Refer to:  
FWS/R6

### Memorandum

To: Assistant Regional Director, Refuges

From: Project Leader, Northwest North Dakota Wetland Management District

Through: Refuge Supervisor, Prairie Zone

Subject: Request for Minor Revision to 2000 Comprehensive Conservation Plan for  
Tewaukon National Wildlife Refuge

The Service is currently drafting a Hunting and Fishing Plan for North Dakota Limited Interest National Wildlife Refuges and associated Environmental Assessment for Hunting and Fishing on North Dakota Limited-interest National Wildlife Refuges. The 2000 Comprehensive Conservation Plan (CCP) for Tewaukon National Wildlife Refuge covers two of these Easement Refuges, Storm Lake and Wild Rice Lake, and states under E1.1 Objective: Protect all easement refuge property interests from hunting, draining, or conversion in Sargent County. I am proposing two minor revisions to the CCP that will align with the draft Hunting and Fishing Plan for North Dakota Limited Interest National Wildlife Refuges. Specifically, I am proposing to revise E1.1 to "Protect all easement refuge property interests from draining or conversion in Sargent County." I am also proposing to add the following: E1.4 Objective: Where compatible allow fishing and hunting opportunities that foster an appreciation and understanding of the management and resources of the Program and the System. These changes will provide additional potential hunting and fishing opportunities to the public as referenced in Secretarial Order 3356.

The National Wildlife Refuge System Improvement Act of 1997 and Service policy (Fish and Wildlife Service Manual chapters 602 FW 1 and 3) identify the need to periodically review and revise Comprehensive Conservation Plans. Specifically the Service Manual chapter 602 FW 3, (Comprehensive Conservation Planning Process) Section 3.2 states "We will revise the CCP every 15 years ... or earlier if monitoring and evaluation determine that we need changes to achieve planning unit purpose(s), vision, goals, or objectives".

The change to E1.1 and addition of E1.4 are considered minor CCP revisions because they do not significantly change the management direction of the Easement Refuges. The change to E1.1 and addition of E1.4 does not change the overall intent of the CCP objectives. Compliance with

INTERIOR REGION 5  
MISSOURI BASIN

KANSAS, MONTANA\*, NEBRASKA, NORTH DAKOTA,  
SOUTH DAKOTA

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INTERIOR REGION 7  
UPPER COLORADO RIVER BASIN

COLORADO, NEW MEXICO, UTAH, WYOMING

the National Environmental Policy Act of 1969 (NEPA), meets the criteria for the following 2  
categorical exclusion: 516 DM 8.5 C(9) "Minor changes in existing master plans,  
comprehensive conservation plans, or operations, when no or minor effects are anticipated.

Examples include minor changes in the type and location of compatible public use activities and  
land management practices."

This memorandum complies with the National Wildlife Refuge System Improvement Act of  
1997, which states that the "Secretary shall ... revise the plan at any time if the Secretary  
determines that conditions that affect the refuge or planning unit have changed significantly."  
Examples of new information or changed conditions include but are not limited to the following:  
1) changes in the acreage of a specific habitat type; 2) changes in water management or  
availability; 3) changes in the status of a listed species; 4) the need for changes to wildlife  
management or public use programs; 5) changes to Service policy; 6) the need to construct new  
facilities, and/or 7) changes in sea level or other climate related changes.

**Submitted By**

Project Leader:  - Acting 01/30/2020  
(Signature) (Date)

**Concurrence:**

Refuge Supervisor:  12-22-2019  
(Signature) (Date)

**Approval:**

Assistant Regional  
Director, Refuges:  2/3/2020  
(Signature) (Date)