

**Final Environmental Assessment**  
**for Hunting on**  
**John W. and Louise Seier National Wildlife Refuge**

July 2020

Prepared by

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# **Environmental Assessment for Hunting on the John W. and Louise Seier National Wildlife Refuge**

**Date:** July 6, 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] 1500-1508) 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 hunting opportunities for game species on the John W. and Louise Seier (Seier) National Wildlife Refuge (NWR) in accordance with the refuge's conceptual management plan. Hunting would be allowed on all 2,400 acres of the refuge with the exception of small safety zones around the building sites (see Figure 1).

This proposed action is often iterative and evolves over time during the process as the agency refines its proposal and learns more from the public, tribes, and other agencies. Therefore, the final proposed action may be different from the original. The final decision on the proposed action will be made at the conclusion of the public comment period for the EA and the Draft 2020–2021 Refuge-Specific Hunting and Sport Fishing Regulations.

### **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 CFR and Fish and Wildlife Service Manual.

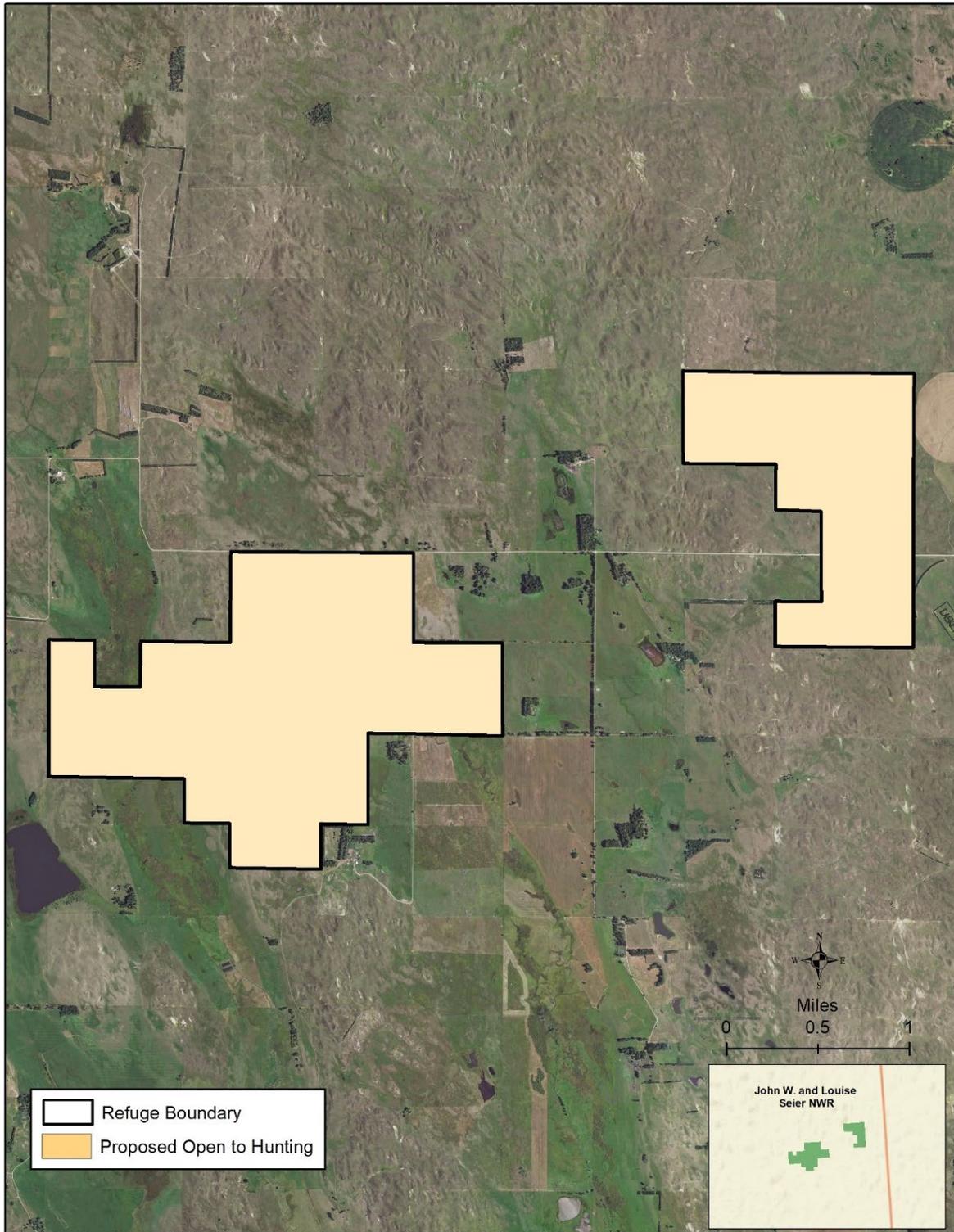
In 1990, the Service and the Seier family, John W. and Louise Seier (brother and sister), exchanged a series of letters and met concerning the donation of their ranch to the Service. The Service agreed to accept the property and assisted them in drafting language in preparation of a trust to deed the property to the Service upon their death. John passed away in 1997 and Louise passed in 2002. The Service began managing the land in 2003.

The refuge was established pursuant to The John W. and Louise Seier Living Trust. The primary purpose of the refuge is to “for the development, advancement, management, conservation, and protection of fish and wildlife resources . . .” (16 U.S. Code a 742fl:[a][4]) and “for the benefit of the Service, in performing its activities and services. Such acceptance may be subject to the terms of any restrictive or affirmative covenant, or condition of servitude” (16 U.S. Code a 742 f[b][1]).



U.S. Fish & Wildlife Service

John W. and Louise Seier National Wildlife Refuge



**Figure 1. John W. and Louise Seier National Wildlife Refuge Map and Proposed Hunting Area**

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; and
- 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 provide compatible wildlife-dependent recreational opportunities on Seier NWR. The need of the proposed action is to meet the Service’s priorities and mandates as outlined by the NWRSA to “recognize compatible wildlife-dependent recreational uses as the priority general uses of the Refuge System” and “ensure that opportunities are provided within the Refuge System for compatible wildlife-dependent recreational uses” (16 U.S. Code 668dd[a][4]). This action satisfies Executive Order 13443 signed August 16, 2007, “Facilitation of Hunting Heritage and Wildlife Conservation;” Secretary’s Order 3347 signed March 2, 2017: Conservation Stewardship and Outdoor Recreation; and Secretary’s Order 3356 signed September 15, 2017: Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories. The proposed action also helps to accomplish a goal in the conceptual

management plan to facilitate compatible, wildlife-dependent recreational opportunities on refuge lands.

## **2.0 Alternatives**

### **2.1 Alternatives Considered**

#### **Alternative A – Open Seier National Wildlife Refuge to Hunting of Resident Game Species and Migratory Birds – Proposed Action Alternative**

The refuge has prepared a hunting plan, which is presented in this document as the Proposed Action Alternative.

Under the Proposed Action Alternative, the Service would open the refuge to hunting of resident game and migratory birds according to state and federal regulations. Resident game is all non-migratory wildlife hunted in Nebraska under the Nebraska Game and Parks Commission (NGPC) hunting regulations. Resident game species are white-tailed deer, mule deer, pronghorn antelope, elk, badger, beaver, bobcat, coyote, fox, long-tailed weasel, mink, muskrat, opossum, prairie dog, porcupine, rabbit and hare, raccoon, skunk, squirrel, woodchuck, greater prairie chicken, grouse, partridge, pheasant, quail, and turkey. Migratory Birds are waterfowl, dove, crow, rail, snipe, and woodcock.

Refuge-specific regulations would be published in the Federal Register as part of the Draft 2020–2021 Refuge-Specific Hunting and Sport Fishing Regulations.

- Dog use would not be allowed during the nesting season of ground nesting birds.
- Camping would not be allowed
- Nontoxic shot would be required for all shotgun use

Mitigation Measures to Avoid Conflicts:

- Because the refuge is not currently open to any public use, opening the refuge to hunting would not conflict with other uses.

This alternative would offer increased opportunities for public hunting and fishing and fulfills the Service’s mandate under the Improvement Act. The Service has determined that the hunting plan is compatible with the purposes of the refuge and the mission of the Refuge System.

#### **Alternative B – Current Management Strategies – No Action Alternative**

Under this alternative, the Seier NWR would remain completely closed to all public use. Refuge habitat management would continue.

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

There was some discussion of opening the refuge for a more limited hunt such as a special youth hunt. A special hunt would require staff and time to administer. Given the lack of staffing and the remoteness of the refuge from any other staffed refuges, we, the Service, decided to open the refuge up to everyone.

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

#### **3.1 Affected Environment**

The boundary of the Seier NWR is approximately three miles northwest of Rose, Nebraska, in Rock County. The 2,400-acre refuge is divided into two parcels. The east unit of the refuge is 800 acres and is in Sections 19, 20, and 29, T. 26 N., R. 19 W. The largest tract of the refuge, the west unit, is 1,600 acres, and is 1.5 miles west of the 800-acre east unit. This 1,600-acre tract is located in Sections 25, 26, 27, 34, and 35, T. 26 N., and R. 20 W. This tract contains the old ranch headquarters in the northwest corner of the southwest quarter of Section 25.

The predominate habitat of the refuge is upland sandhill prairie. Approximately 755 acres of the easterly parcel (94 percent) is upland grassland. The western parcel is also primarily grassland, with 1,250 acres (78 percent) of sandhill prairie. Combined, the entire refuge has 2,005 acres of native prairie (83 percent). The sandhill prairie on the refuge is composed of both sand and choppy sand range sites. Grasslands are dominated by cool season grasses brome and Kentucky blue grass, stipa, and other species. Highly palatable herbaceous species, such as leadplant, are abundant. Very few blowouts exist, and the endangered blowout penstemon has not been observed.

The next major habitat type present on the refuge is wetlands. Approximately 370 acres of the refuge are wetlands. In the eastern 800 acres, small depressions in the sandhill prairie are present (less than one acre). Both temporary and seasonal wetlands are present and scattered across the tract. Approximately 30 acres of subirrigated meadow are present in the east unit. It is wet enough in most years that surface water is present in some of the meadow sites.

The other two major wetland areas were on the western tract. Bloody Creek, a usually intermittent stream, cuts across the ranch for 1.25 miles in sections 25 and 26. Approximately 60 acres of temporary, seasonal, and semipermanent wetlands exist alongside the creek, with an additional 140 acres of subirrigated meadow. Skull Creek, a permanent stream that empties into the Calamus River, flows across half a mile of the western portion of the ranch in sections 27 and 34. An estimated 90 acres of temporary, seasonal, and semipermanent wetlands are associated with the creek system with an additional 60 acres of subirrigated meadows. Portions of this low-lying land along Skull Creek were farmed in the 1920s and 1930s. An old remnant ditch is still visible in the meadow. The subirrigated meadows are dominated by several sedge species with small amounts of rushes in pockets. Seasonal and semipermanent wetland plants (arrowhead, smartweed, cattail, and hardstem bulrush) exist in the depressions of the meadow and along flattened creek edges.

Several areas of the meadow possess fen-like characteristics of floating peat mats, two fern species, and unique sedges. It is unknown whether peat deposits and vegetation are sufficiently developed to be classified as fens, but at least some of these characteristics exist. Skull Creek appears to be spring fed with significant quantities of water upwelling in this valley. One well near the creek has artesian flow.

Within the Skull Creek meadow, stands of peachleaf willow are present. The stands are thin and scattered in clumps along the creek. Ground cover represented by this shrub habitat is no more than five acres, but it represents a habitat niche that is important to migrating songbirds in the Sandhills.

The last habitat of note is approximately 10 acres of cottonwood forest. These acres are old tree claims that were planted in the original homesteading of the Sandhills. Cottonwood trees are large with greater than 18-inch diameter at breast height (dbh) and over 60 feet in height. Reproduction of ash and other species were present in the shade of these plantings. Tree plantings of this type are common in Rock County and the Sandhill counties to the east.

The refuge is in a very rural area. Bassett, Nebraska, located 25 miles north of Seier NWR, is the closest incorporated city, with a population of approximately 560 people. Land use is dominated by cattle grazing, but center pivot irrigated cropland is increasing.

Tables 1 through 6 provides additional, brief descriptions of each resource affected by the proposed action.

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

This section analyzes the environmental consequences of the proposed action on each affected resource, including direct and indirect effects. This EA only includes the written analyses of the environmental consequences on a resource when the impacts on that resource could be more than negligible and therefore considered an “affected resource.” Any resources that would not be more than negligibly affected by the action have been dismissed from further analyses.

Tables 1 through 5 provide:

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

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

Impact Types:

- *Direct effects* are those that are caused by the action and occur at the same time and place.
- *Indirect effects* are those that 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>  <i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p><b><u>Alternative B (No Action)</u></b>  <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p><b>Resident Big Game</b></p>		
<p><b><i>Elk</i></b>                      Elk herds once common across all of Nebraska became extinct by 1900. In the 1960s, a few elk returned to Nebraska, and in 1986 Nebraska had its first modern elk season. Since then, elk have expanded into the hills and rivers of western Nebraska, and the annual passage of young bulls through eastern Nebraska is a common occurrence. More than 1,600 elk have been harvested since the first season in 1986.</p> <p><b><i>Pronghorn</i></b>                      The pronghorn is North America’s swiftest land mammal and one of the fastest in the world. Its speed, endurance, and keen eyesight are well adapted to the short-grass prairies and gumbo badland of the western U.S. Herds were at the brink of extinction in Nebraska by 1907, when all hunting seasons were closed. Slow expansion occurred for the next 50 years, and hunting seasons have been held every year since 1958  <a href="http://www.outdoornebraska.gov">www.outdoornebraska.gov</a></p>	<p>Pronghorn and elk are transient species on the refuge. Their harvest would likely be so low as to not affect the local population. Because their populations throughout the Sandhills are transient, their expected yearly harvest cumulatively would be zero to one per year.</p>	<p>No elk, pronghorn, or deer hunting would occur on the refuge. Deer congregate on the refuge in the fall due to hunting pressure on surrounding lands.</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>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p style="text-align: center;"><b><u>Alternative B (No Action)</u></b></p> <p style="text-align: center;"><i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p><b><i>Deer</i></b></p> <p>Nebraska’s modern deer season began in 1945 with a harvest of 275 mule deer and two white-tailed deer from Nebraska National Forest, near Halsey. Since then, deer hunting has become a treasured tradition enjoyed by countless hunters, who have harvested more than 2.2 million deer. Careful management in the past five years has resulted in growth in mule deer herds and a reduction in white-tailed deer herds. Season recommendations for 2019 allowed a harvest of approximately 10,000 mule deer and 46,000 white-tailed deer. Population goals in 2019 are for slight increases in northern and eastern white-tailed deer herds and a modest reduction in mule deer herds in Southwest Nebraska and continued pressure on white-tailed deer along river corridors. Biologists will collect lymph nodes for chronic wasting disease (CWD) testing from deer taken in six Panhandle and Northeast deer units.</p> <p>The Sandhills are home to 55 species of mammals. The most abundant large mammals are mule deer and white-tailed deer. The Sandhills support a few elk and relatively small numbers of pronghorn, particularly in the west (Schneider et al. 2011).</p>	<p>Deer would be taken from the refuge during hunting season. The NGPC would estimate deer populations and establish hunting seasons. We estimate that 10–15 deer may be harvested annually at the refuge.</p>	

<p><b>Affected Resources</b></p>	<p><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p><b><u>Alternative B (No Action)</u></b></p> <p><i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p><b>Upland Game</b></p>		
<p><b><i>Wild Turkey</i></b></p> <p>The wild turkey (<i>Meleagris gallopavo</i>) was extirpated from Nebraska by 1915, but thanks to successful reintroduction efforts beginning in the Pine Ridge in the 1950s, turkeys can be found across the state today. Reintroductions were three subspecies (Merriam’s, Rio Grande, and Eastern wild turkeys), as well as a hybrid between Merriam’s and a game-farm variety that was found to do well where earlier releases failed. The hybrid birds proliferated and intermingled with the pure strains as populations grew. Turkeys in the panhandle and Niobrara River valley are most consistent in showing plumage characteristics of the Merriam’s subspecies. The wild turkey is the largest upland game bird in North America. Adult Merriam’s toms taken in the fall season average 18 pounds and adult hens average 10 pounds. Hybrid birds can be heavier, weighing more than 25 pounds.</p>	<p>According to state records, 17,731 wild turkeys were harvested, with an estimated 61.3 percent hunting success rate, during the 2018 turkey-hunting season in Nebraska. The refuge provides good habitat for turkeys, but currently there are no estimates (by the NGPC or the refuge staff) on the size of the wild turkey populations on the refuge. Given the relatively small size of the refuge compared to all public lands in Nebraska open to turkey hunting, we expect that few hunters (between zero and two) would travel to this refuge to hunt wild turkeys. Given the state’s 61 percent turkey harvest success rate, we estimate that between zero and one turkey could be harvested at the refuge during the upcoming wild turkey hunting season. Therefore, we consider the direct impacts of the local population to be negligible to the overall population in the state. Figure 2 depicts the turkey population in the Sandhills since 2000.</p>	<p>No turkey hunting would occur on the refuge.</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>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p style="text-align: center;"><b><u>Alternative B (No Action)</u></b></p> <p style="text-align: center;"><i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p><b>Furbearers and Non-Game Species</b></p>		
<p>Nebraska has a wealth of furbearing species that provide opportunities for wildlife watching, photography, hunting, and trapping. Furbearers are a group of native mammals that have valuable fur. Furbearers with a harvest season are badger, beaver, bobcat, mink, muskrat, opossum, raccoon, red fox, gray fox, striped skunk, and long-tailed weasels. Coyotes, prairie dog, porcupine, and woodchuck are nongame and thus are not protected as furbearers; however, they are commonly harvested in Nebraska. Coyote are hunted for their fur when pelts are prime.</p> <p>The furbearing species that are harvested are common or abundant in Nebraska. Regulated harvest through hunting and trapping seasons is an important management tool needed to control populations and damage that these species can cause. Hunting and trapping seasons are typically designed to allow the harvest of furbearers during the fall and winter, when the pelts are prime, and they are less likely to have dependent young. There are no bag limits or specific harvest units for furbearers. Trapping and hunting furbearers is a time-honored tradition that provides the ability for families to enjoy time well spent in the great outdoors, earn extra income, and help mitigate problems.</p>	<p>A total of 7,005 fur harvest permits were sold to Nebraska residents in 2017 (down from 7,304 in 2016). Thirty-nine fur harvest permits were sold to non-residents from 14 different states (Colorado, Iowa, Illinois, Kansas, Michigan, Minnesota, Missouri, New Hampshire, Oklahoma, Pennsylvania, South Dakota, Texas, Wisconsin, and Wyoming). Resident fur harvest permit trends from 1943-2017 are shown in Figure 3.</p> <p><b>Harvest</b></p> <p>The estimated harvest during the 2017–2018 season was lower compared with the five-year average. Mink, raccoon, and opossum showed the greatest decrease (down 64 percent, 36 percent, and 20 percent, respectively). Coyote, muskrat, and bobcat showed an increase compared to the five-year average (up 27 percent, 10 percent, and 7 percent, respectively). The total estimated harvest for the 2017–2018 season was higher than that for the 2016/2017 season, with skunk, beaver, and coyote showing the greatest increase (up 49 percent, 36 percent, and 35 percent, respectively). Mink and woodchuck showed the greatest decrease from the 2016–2017 season (down 41 percent and 32 percent, respectively). Fur harvesters reported that 25 percent of coyotes and 4 percent of red foxes harvested showed symptoms of mange.</p> <p>2012–2016 5-Year Average Estimated Furbearer Harvest</p> <ul style="list-style-type: none"> <li>• Raccoon            168,629</li> <li>• Opossum            31,916</li> <li>• Striped Skunk    13,300</li> <li>• Badger              4,351</li> <li>• Red Fox            3,446</li> <li>• Mink                2,256</li> <li>• Bobcat*            1,284</li> </ul> <p><i>* Total harvest based on pelt tagging, hunt column includes harvested road kills</i></p>	<p>Under the No Action Alternative, no furbearer hunting would occur on the refuge.</p>

<b>Affected Resources</b>	<b><u>Alternative A (Proposed Action)</u></b> <i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i>	<b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i>
	<p>The State of Nebraska encompasses nearly 800,000 acres of public lands on about 300 state and federally managed areas. Given the relatively small size of the refuge (2,400 acres, or 0.3 percent of the public lands in Nebraska), we expect that few hunters would visit this refuge to harvest furbearers (around five per year). If the hunting success rate and furbearer harvest trends at the refuge are similar to those for the rest of the state, we would expect that the furbearer harvest at the refuge would be:</p> <ul style="list-style-type: none"> <li>• Raccoon: less than 6</li> <li>• Opossum: less than 3</li> <li>• Skunk: less than 3</li> <li>• Badger: less than 2</li> <li>• Red fox: less than 1</li> <li>• Mink: less than 1</li> <li>• Bobcat: less than 1</li> </ul> <p>Given these estimates, we anticipate that the total number of hunters hunting furbearers would have an insignificant effect on the overall population of furbearers in the local area.</p>	
<b>Migratory Birds</b>		
The refuge contains small areas of emergent marsh, mudflats, and open water that annually support a few ducks, geese, coots, swans, and other migratory birds during fall and spring migrations.	The refuge is not covered by “Inviolate Sanctuary” protections as many other national wildlife refuges are. It was not acquired under the authorities that provide that statutory language. Migratory bird hunting would be implemented, for the first time, within the federal and state frameworks. Given that no hunting has ever occurred at this refuge before, there are no data to correctly estimate expected hunters or hunting visits.	We would preserve feeding and resting habitat for waterfowl throughout the refuge, and no migratory bird hunting would be allowed.

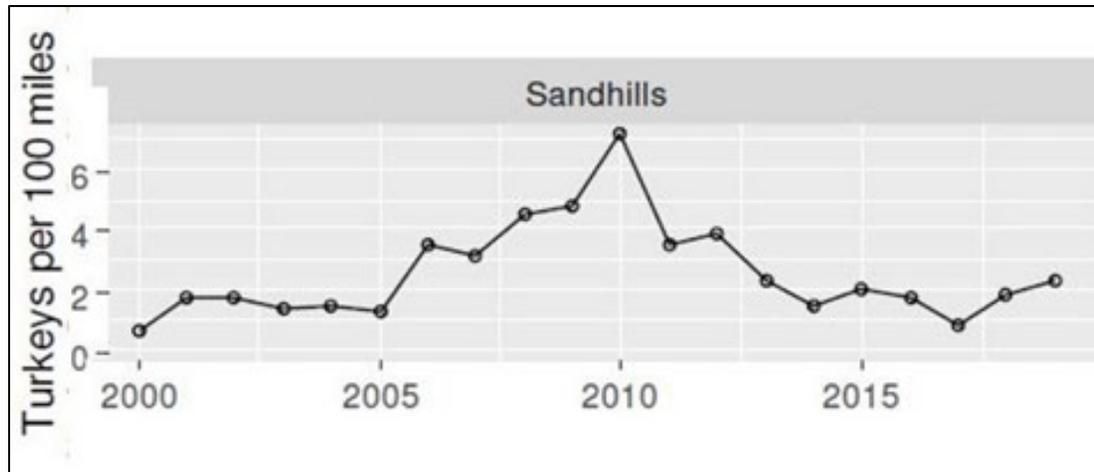
<p style="text-align: center;"><b>Affected Resources</b></p>	<p style="text-align: center;"><b><u>Alternative A (Proposed Action)</u></b></p> <p style="text-align: center;"><i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p style="text-align: center;"><b><u>Alternative B (No Action)</u></b></p> <p style="text-align: center;"><i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p>Common huntable waterfowl and migratory bird species are mallard, northern pintail, northern shoveler, gadwall, green-winged teal, blue-winged teal, American wigeon, Canada geese, Wilson’s snipe, Virginia and sora rail, dove, and crows. Open-water and diver waterfowl species, common goldeneye, redhead, canvasback, common merganser, red-breasted merganser, bufflehead, ruddy duck, and lesser scaup would be much less likely to occur.</p> <p>The refuge is located in the Central Flyway.</p>	<p>However, by using the most recent migratory bird harvest data (August 2019) for Nebraska, and expecting the same hunting success rate, though a much lower rate of hunting participation or pressure at the refuge when compared to the rest of Nebraska (due to the new opening) to assess likely harvest numbers at the refuge, we estimate the following harvest numbers:</p> <ul style="list-style-type: none"> <li>• Mallard: 7</li> <li>• Northern pintail: 1</li> <li>• Northern shoveler: 1</li> <li>• Gadwall: 2</li> <li>• Green-winged teal: 2</li> <li>• Blue-winged teal: 3</li> <li>• Wigeon: 1</li> <li>• Canada goose: 8</li> <li>• Wilson’s snipe: 0-1</li> <li>• Virginia rail: 0-1</li> <li>• Sora rail: 0-1</li> <li>• Dove: 40</li> <li>• Crow: 10</li> </ul> <p>Therefore, we consider that opening the refuge to migratory bird hunting would not significantly affect the overall migratory bird populations at the flyway and national levels.</p> <p>Disturbance to migratory birds other than direct take would be temporary (limited to the hunting season) and minimal. All access is by foot. There are no lakes to support boat use disturbance. There are no roads within the refuge to support vehicle use disturbance.</p>	

<p><b>Affected Resources</b></p>	<p><b><u>Alternative A (Proposed Action)</u></b></p> <p><i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p><b><u>Alternative B (No Action)</u></b></p> <p><i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p><b>Other Wildlife and Aquatic Species</b></p>		
<p>The refuge is located in the Sandhills of north-central Nebraska. The refuge is a unique and ecologically important component of the Refuge System. The native Sandhills prairie and wetlands found here support a diversity of wildlife. Little has changed since historic times.</p> <p>The refuge is home to many species of birds, mammals, reptiles, and amphibians.</p>	<p>As previously explained, we expect hunting activities, hunting pressure, and the numbers of hunters to be low at this refuge due to the refuge’s size, availability of better-known and larger huntable public lands in the region, and the newness of hunting at the refuge. Therefore, we expect that disturbance to non-hunted wildlife species from hunting activities on the refuge would be minimal (few hunters) and temporary (limited to the hunting season). Furthermore, many non-hunted species would have migrated from the refuge when hunting activities begin. Direct effects on non-hunted migratory birds such as songbirds (passerines), shorebirds, raptors, and swans are expected to be negligible. Indirect effects on this group of species are also minimal and do not appreciably reduce their numbers at the population level. Shorebirds and wading birds would not be affected by hunting because, in most cases, they have already migrated through the area prior to the fall hunting season. Disturbance to non-hunted migratory birds by hunting would not have substantial negative indirect effects because most hunting would not coincide with the nesting season. Other disturbance to these species by hunters afield would be temporary in nature.</p> <p>Migratory birds of prey (such as eagles and hawks) are on the refuge during most hunting seasons, but disturbance to them would be minimal. Disturbance to the daily wintering activities, such as feeding and resting, of residential birds might occur but would be insignificant because such interactions would be infrequent and of short duration when they did occur. Small mammals such as voles and mice are generally nocturnal or secretive. Both of these qualities make hunter interactions with small mammals very rare. Hibernation, or torpor, of cold-blooded reptiles and amphibians also limits their activity during most of the hunting season when temperatures are low. Hunters would rarely encounter reptiles and amphibians during most of the hunting season. Some species of butterflies and moths are migratory and would not be present for most of the refuge hunting season. Resident invertebrates are not active during cold weather and would have few interactions with hunters during the hunting season. Impacts on these species due to habitat disturbance related to hunting are negligible at the local and flyway levels.</p>	<p>This refuge is currently closed to all public uses. Therefore, under this alternative, there would continue to be no disturbance caused by human activities, and therefore no impacts on the refuge’s wildlife and plant species.</p>

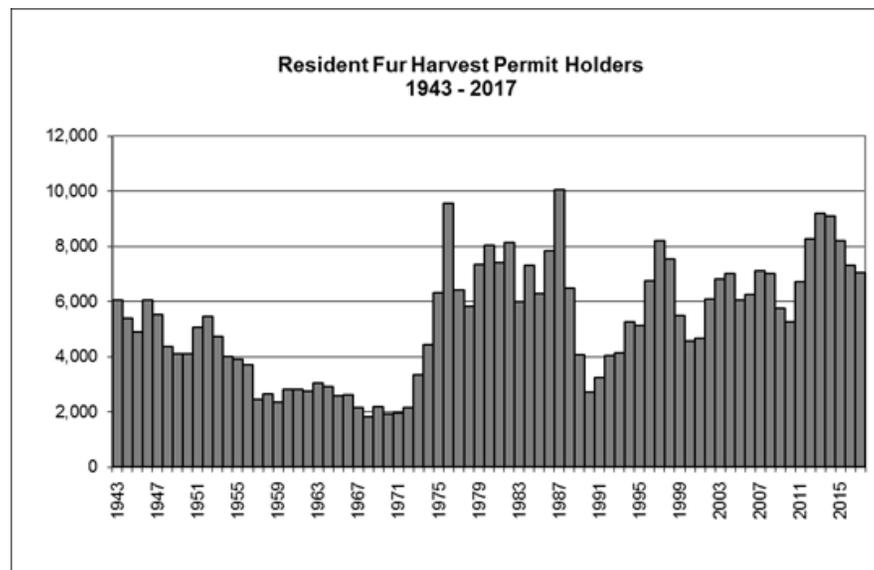
<b>Affected Resources</b>	<b><u>Alternative A (Proposed Action)</u></b> <i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i>	<b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i>
	<p>Overall, hunting impacts on other wildlife and their habitats and impacts on the biological diversity of the refuge would be insignificant.</p> <p>Increased hunting may result in additional short-term disturbance to wildlife over a larger area. This disturbance may include temporary displacement of migratory and resident wildlife from foot traffic moving through the area.</p> <p>There is a possibility of conflict with birds of prey's feeding on dead furbearers that may contain lead fragments from bullets. Research has shown that lead is present in gut piles, but most furbearer hunters remove the entire carcass from the refuge to process off-site.</p>	
<b>Threatened and Endangered Species and Other Special Status Species</b>		
<p>Threatened and endangered species reported for Rock County, Nebraska, are whooping crane, piping plover, least tern, blowout penstemon, western prairie fringed orchid, American burying beetle, and northern long-eared bat.</p> <p>The refuge lies within the migratory path of whooping cranes and does present suitable migratory habitat. We have no reports of whooping cranes using the refuge.</p> <p>The refuge does not contain typical piping plover or least tern habitat. These birds are not documented on the refuge.</p> <p>The refuge is in the range for blowout penstemon and western prairie fringed orchids, although neither are documented on the refuge.</p> <p>American burying beetles probably occur on the refuge. They are seemingly common in the Nebraska Sandhills.</p>	<p>We do not expect this alternative to have any positive or negative effects on threatened and endangered species. None of the refuge lands that would be open to public hunting have been designated as critical habitat for any species listed as endangered or threatened under the Endangered Species Act of 1973, as amended.</p> <p>Whooping cranes may inhabit shallow wetland habitat during spring and fall migrations. As mitigation, all public use would be suspended if whooping cranes were located on the refuge.</p> <p>Additional hunting opportunities could create more forage for American burying beetles.</p>	<p>The No Action Alternative would not have any effect on threatened or endangered species because there is no public access to the refuge.</p>

<b>Affected Resources</b>	<b><u>Alternative A (Proposed Action)</u></b> <i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i>	<b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i>
There may be suitable brood rearing habitat for northern long-eared bats in the large trees around the homestead site and old windbreaks. None of these bats have been documented on the refuge.		
<b>Vegetation</b>		
See Section 3.1, Affected Environment above.	The entire refuge would be open to hunting. We do not expect adverse impacts on the refuge's habitats and vegetation from hunting activities because (1) low number of hunters and hunting pressure, (2) refuge access would be limited to foot traffic (which would have only minor and temporary impact on vegetation from trampling), and (3) we do not anticipate an increase in invasive plant species present.	We do not anticipate impacts on the vegetation from continued closure of the refuge to public uses. Large ungulates and other wildlife do not congregate in this refuge in sufficient numbers to adversely affect the refuge's habitats from herbivory, burrowing, or other life-cycle activities.
<b>Geology and Soils, Air Quality, Water Resources, and Floodplains</b>		
	We do not expect impacts of these resources from implementation of this alternative.	We do not expect impacts of these resources from continued implementation of this alternative.

Key: CWD = chronic wasting disease; NGPC = Nebraska Game and Parks Commission; NWR = National Wildlife Refuge; U.S. = United States



**Figure 2. Wild Turkey Population in the Sandhills Since 2000.**



**Figure 3. Nebraska Resident Fur Harvest Permit Holders 1943-2017.**

**Table 2. Affected Visitor Use and Experience 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>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i>	<b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i>
There is currently no visitor use of the refuge. It is not open to the public.	We anticipate a few hundred hunter use days per year to start. This number may go up, but due to the small size of the refuge, hunter presence would decrease the abundance of huntable game. Because the open hunt area is highly visible and is otherwise off-limits all year to other members of the public, allowing hunters may cause a perception of favoritism for one user group over another. This could be alleviated in the future, if necessary, by opening the hunt area to the general public for other uses such as photography, wildlife observation, and interpretation.	Continued closure of the refuge to public uses would have negative impacts on the quality of the experience of possible visitors to the refuge, the public perception of the Refuge System and the Service, and the availability of outdoor recreational opportunities.

Key: NWR = National Wildlife Refuge

**Table 3. Affected Cultural Resources 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>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i>	<b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i>
Limited cultural resource studies have been conducted by the Service, or any other groups, to locate and describe and evaluate cultural and paleontological resources. Current protection and interpretation of cultural and paleontological resources is minimal. The Seier Ranch buildings have been evaluated and found to not be worthy of special protection. Almost all buildings are destined for removal or destruction.	We do not expect impacts on these resources from implementation of this alternative.	We do not expect impacts on these resources from continued implementation of this alternative.

Key: NWR = National Wildlife Refuge

**Table 4. Affected Refuge Management and Operations 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>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i>	<b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i>
<b>Land Use</b>		
<p>Predominate land use in Rock County is native prairie grazing and haying. Family-owned ranching is the primary source of income. The permitting of some grazing and haying on Service lands benefits the local economy, as do the in-lieu-of-tax payments made to Rock County for Service lands. Grazing of the refuge is awarded to the high bidder in years that portions of the refuge are grazed.</p>	<p>The refuge would continue to engage in habitat management activities during the hunting season to ensure that the refuge meets its other management objectives (see Refuge Annual Performance and Plan). Impacts would be decreased by ensuring that hunters, cooperators, and partners are aware of each other’s activities and timed to reduce conflict, when possible. No impacts are anticipated to habitat, buildings, infrastructure, traffic or roadways. We anticipate a negligible increase in traffic on local or adjacent roadways but no increased cost or impacts on infrastructure.</p>	<p>We do not expect impacts on these resources from continued implementation of this alternative.</p>
<b>Administration</b>		
<p>The hunting program is designed to be administered with minimal refuge resources. The costs of administering and enforcing the refuge hunting program comes out of the refuge’s annual budget. Expenses include program management, staff resources, boundary posting, signage, brochures, parking lot construction, facility maintenance, gate installation, and other hunting-specific activities.</p> <p>Law enforcement of refuge and state hunting regulations, and trespass and other violations associated with management of the refuge, are the responsibility of a refuge law enforcement officer. Refuge officers cooperate with, and are assisted by, state and county officers as well as state conservation officers. Ongoing coordination and communication between refuge staff and law enforcement officers is conducted throughout the year.</p>	<p>Refuge law enforcement would be stretched much thinner with implementation of the Proposed Action Alternative. This would add approximately five percent to the overall time required of the Sandhills Complex’s single officer. With only one officer, this time would reduce the time spent at the other six refuges within the complex. Overtime funding or extra detail officers would be needed to provide even minimal law enforcement.</p> <p>Some additional time would be required of refuge management and maintenance staff to administer the hunt, coordinate with the NGPC, and support parking lots, fences, and gates.</p>	<p>No additional increase in costs for administration, law enforcement, biological monitoring and research, or annual maintenance would be required for the No Action Alternative.</p>

Key: NGPC = Nebraska Game and Parks Commission; NWR = National Wildlife Refuge

**Table 5. Affected Socioeconomics 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> <i>The Service would open Seier NWR to hunting of resident game and migratory birds according to state and federal regulations.</i></p>	<p><b><u>Alternative B (No Action)</u></b> <i>Seier NWR would remain closed to all public use. Refuge habitat management would continue.</i></p>
<p><b>Local and Regional Economics</b></p>		
<p>The refuge is located approximately 25 miles from the city of Bassett, Nebraska, with a population of 560. A few other small towns are also located within a distance of 30–90 miles. The predominant land uses in the vicinity of the refuge are grazing and irrigated farming. The refuge has no visitation other than what occurs by people driving the county and township roads around the refuge.</p> <p>More than 53.6 million visits were made to refuges in fiscal year 2017; these visits generated \$3.2 billion in sales, over 41,000 jobs, and \$1.1 billion in employment income in regional economies. About 86 percent of total recreation-related expenditures are generated by nonconsumptive activities on refuges. Fishing accounted for 10 percent and hunting accounted for four percent of expenditures (Caudill, James and Erin Carver 2019).</p> <p>Nebraska claims \$848 million in economic impact annually from hunting (Nebraska Game and Parks Commission Information Guide, January 31, 2017).</p>	<p>The addition of hunting under this alternative would likely benefit the state and local economy through revenues generated by hunter lodging, food, gas, and miscellaneous purchasing.</p> <p>The proximity of this site to other states (South Dakota, Wyoming, Colorado, Kansas, Iowa, and Minnesota) is likely to attract out-of-state hunters and furbearer harvesters to visit this refuge to pursue outdoor recreational opportunities. Wildlife and furbearer harvest data gathered by the state show that out-of-state hunters visit Nebraska to recreate in the state during the various hunting seasons.</p> <p>We would expect that the increase in the number of hunters would persist and probably grow over time, having a positive impact on the local and state economy.</p>	<p>There would be no anticipated impacts on local and regional economics under this alternative.</p>
<p><b>Environmental Justice</b></p>		
<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 finding 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>The Service has not identified any potential high and adverse environmental or human health impacts from this proposed action or any of the alternatives. The Service has identified no minority or low-income communities within the impact area. Minority or low income communities would not be disproportionately affected by any impacts from this proposed action or any of the alternatives.</p>	<p>Impacts would be the same as described under 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). Cumulative impacts are the overall, net effects on a resource that arise from multiple actions. Impacts can “accumulate” spatially when different actions affect different areas of the same resource. They can also accumulate over the course of time from actions in the past, the present, and the future. Occasionally, different actions counterbalance one another, partially cancelling out each other’s effects on a resource. But more typically, multiple effects add up, with each additional action contributing an incremental impact on the resource.

**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>Hunting</b>	
<p>Total duck and goose harvest in the United States from 2016–2017 was estimated at 12,115,800 (±4 percent) ducks and 3,602,500 (±5 percent) geese (USFWS 2018). For the period of 2016–2017, annual duck harvests for the Central Flyway averaged 2,429,000 (±14 percent) ducks and during the same period, annual goose harvests for the Central Flyway averaged 1,061,500 (±11 percent) geese (Raftovich et al. 2018).</p> <p>For the period 2018–2019, the number of hunters and annual harvest for different resident game species in Nebraska can be found at <a href="http://outdoornebraska.gov">http://outdoornebraska.gov</a>.</p> <p>Public hunting areas near the refuge are Calamus Reservoir WMA, Twin Lakes R.C. WMA, South Pine WMA, and Yellowthroat WMA.</p>	<p><b><i>Migratory Birds</i></b></p> <p>Migratory bird populations throughout the country are managed through an administrative process known as flyways. The refuge is located in the Central Flyway. In North America, the process for establishing hunting regulations is conducted annually. In the U.S., the process involves a number of scheduled meetings (that is, Flyway Study Committees, Flyway Councils, Service Regulations Committee) where information on the status of migratory bird populations and their habitats is shared with individuals of agencies responsible for setting hunting regulations. In addition, public hearings are held and the proposed regulations are published in the Federal Register to allow public comment.</p> <p>Annual waterfowl assessments are based upon the distribution, abundance, and flight corridors of migratory birds. An Annual Waterfowl Population Status Report is produced each year and has the most current breeding population and production information available for waterfowl in North America (USFWS 2018). The report is a cooperative effort by the Service, the Canadian Wildlife Service, various state and provincial conservation agencies, and private conservation organizations. An Annual Adaptive Harvest Management Report provides the most current data, analyses, and decision-making protocols (USFWS 2017). These reports are intended to aid the development of waterfowl harvest regulations in the United States for each hunting season. Coot, moorhen, and rail species are also counted and analyzed.</p> <p>Each state selects season dates, bag limits, shooting hours, and other options using guidance in these reports. The refuge follows the regulations set by the State of Nebraska.</p> <p>The Service believes that hunting on the refuge would not add significantly to the cumulative impacts of migratory bird management on local, regional, or Central Flyway populations.</p>

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
	<p>This is because the percentage likely to be taken on the refuge, though possibly additive to existing hunting takes, would be a very small fraction of the estimated populations. In addition, overall populations would continue to be observed, and future harvests would be adjusted as needed under the existing flyway and state regulatory processes. Several points support this conclusion:</p> <ul style="list-style-type: none"> <li>• The proportion of the national waterfowl harvest that occurs on national wildlife refuges is only six percent (USFWS 2013).</li> <li>• There are no populations that exist wholly and exclusively on national wildlife refuges.</li> <li>• Annual hunting regulations within the U.S. are established at levels consistent with the current population status.</li> <li>• Refuges cannot permit more liberal seasons than provided for in federal frameworks.</li> <li>• Refuges purchased with funds derived from the Federal Duck Stamp must limit hunting to 40 percent of the available area.</li> </ul> <p>As a result, changes or additions to hunting on the refuge would have minor effects on migratory birds in Nebraska. Although the Proposed Action Alternative would increase hunting opportunities compared to the No Action Alternative, the slight increase in hunter activity would not rise to a significant level. Estimated cumulative impacts of expanded waterfowl hunting on Seier NWR are shown in Table 7.</p> <p><b><i>Resident Birds and Mammals</i></b></p> <p>The NGPC manages resident bird and mammal populations in the State of Nebraska. The state selects season dates, bag limits, shooting hours, and other options using data obtained from monitoring efforts and harvest reports.</p> <p>We estimate that there might be approximately five hunters that hunt furbearers on the refuge. The potential harvest of resident game, furbearer, and other species on the refuge is likely negligible in proportion to regional or state harvest numbers and would not add significantly to the cumulative impacts on resident bird and mammal populations in Nebraska. Estimated cumulative impacts of hunting furbearers and resident birds on Seier NWR are shown in Table 8.</p>
<b>Use of Lead Ammunition</b>	
<p>Lead ammunition is permitted for use in rifles. It is prohibited for use in shotguns.</p> <p>Research has shown 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.</p>	<p>Under the proposed alternative, the refuge represents only a very small portion of hunting that would allow the use of lead ammunition (deer and furbearers). We expect that fewer than 10 rifle hunters per year would visit the refuge to hunt (there were over 18,000 hunting licenses issued in Nebraska in 2019). The continued allowance of lead bullets for the hunting of some species is estimated to have a negligible impact on the cumulative impacts of lead in the environment. This impact would be lessened by the retrieval of the harvested animal and the proper disposal of the bullet. The Service's hunting program can be adjusted to ensure that it does not contribute further to the cumulative impacts of lead on refuge habitats or wildlife.</p>

<b>Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment</b>	<b>Descriptions of Anticipated Cumulative Impacts</b>
<b>Climate Change</b>	
<p>Ecological stressors are expected to affect a variety of natural processes and associated resources in the future. Precipitation availability may significantly affect the number of potholes available to breeding waterfowl. These habitat changes may dramatically reduce the amount and quality of both grassland and wetland for migratory birds that are hunted. As a result, wildlife would be displaced into other areas of available habitat.</p>	<p>While the impacts of climate change on the refuge wildlife and habitats are not certain, expanding hunting on the refuge would not add to the cumulative impacts of climate change because the refuge uses an adaptive management approach for its hunting program, consistently monitoring and reviewing the hunting program annually and revising annually (if necessary). The Service would adjust the hunting program as necessary to ensure that it would not contribute further to the cumulative impacts of climate change on resident wildlife and migratory birds.</p>

Key: NGPC = Nebraska Game and Parks Commission; NWR = National Wildlife Refuge; U.S. = United States; WMA = Wildlife Management Area

**Table 7. Estimated Cumulative Impacts of Expanded Waterfowl Hunting on Seier National Wildlife Refuge.**

<b>Species</b>	<b>Central Flyway Harvest</b>	<b>Estimated Seier NWR Harvest</b>	<b>% Increase in Flyway Harvest</b>
Ducks	2,429,000	17	0.0069
Geese	1,061,500	8	0.0075

**Table 8. Estimated Cumulative Impacts for Hunting Furbearers and Resident Birds on Seier National Wildlife Refuge.**

Species	Average Annual Statewide Harvest	Est. Annual Refuge Harvest	% Increase in Statewide Harvest
Mink	813	<1	0.1
Opossum	25386	<3	0.011
Cottontail	14,915	<4	0.02
Jackrabbit	365	<1	0.3
Red Fox	3,391	<1	0.03
Badger	3,741	<2	0.05
Skunk	12,361	<3	0.024
Coyote	46,311	<4	0.008
Raccoon	108,744	<6	0.005
Turkey	18,131*	10	0.06
Bobwhite	82,275^	6	0.007

Furbearer 2017–18 Nebraska Game and Parks Data

\*2019 Spring Turkey harvest Nebraska Game and Parks Data

^2018–2019 Hunter Success Survey Nebraska Game and Parks Data

### 3.4 Monitoring

Inventory and monitoring of wildlife and their habitats would be done on the refuge in conjunction with our state and federal partners. In addition, the refuge would stay knowledgeable on the status of threatened and endangered species through consultation and local monitoring.

### 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 open the refuge to hunting of resident game and migratory birds according to state and federal regulations. Resident game covers all non-migratory wildlife hunted in Nebraska under the NGPC hunting regulations. Resident game species are white-tailed deer, mule deer, pronghorn antelope, elk, badger, bobcat, coyote, fox, long-tailed weasel, mink, muskrat, opossum, prairie dog, porcupine, rabbit and hare, raccoon, skunk, squirrel, woodchuck, greater prairie chicken, grouse, partridge, pheasant, quail, and turkey. Migratory birds are waterfowl, dove, crow, rail, snipe, and woodcock.

We anticipate that this proposed action would have minimal impacts on the refuge. The potential take of most resident and migratory wildlife species open to hunting on the refuge is likely

negligible in proportion to regional or state harvest numbers and would not add significantly to the cumulative effects on the various species. Direct impacts on refuge populations of some species (e.g., turkey or deer) would not be known until the hunting program is implemented. Expanded hunting opportunities would most likely result in increased temporary disturbance or displacement, or both, of hunted and non-hunted wildlife species from foot traffic moving through the area or from gunfire. There would be no impact on threatened and species. There would be no conflict with other public uses, because there are currently no other public uses of the refuge. There would be a minimal impact on refuge management. The one negative aspect of this opening is that law enforcement would not be adequate, or it would reduce enforcement activities at other refuges in the Sandhills NWR Complex.

This alternative would help meet the purpose and needs of the Service as described above, because it would provide additional wildlife-dependent recreation opportunities on the refuge, meeting the Service’s priorities and mandates. This alternative also would help align Service regulations with state regulations in an effort to make hunting more accessible and understandable by the American public. The Service has determined that the proposed action would be compatible with the purposes of the refuge and the mission of the Refuge System.

**Alternative B – No Action Alternative**

The No Action Alternative would not change use of, or have any impacts on, the refuge. It does not provide compatible wildlife-dependent recreational opportunities. It does not satisfy current executive and secretarial orders to facilitate or provide more hunting opportunities on national wildlife refuges. It does not accomplish the goal in the conceptual management plan to facilitate compatible, wildlife-dependent recreational opportunities on refuge lands. It does not satisfy the purpose and need statement of this environmental assessment.

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

- Kelly Corman, Area Biologist, NGPC

**3.7 List of Preparers**

Name	Position	Work Unit
Steven A. Hicks	Project Leader	Sandhills NWR Complex

**3.8 State Coordination**

On July 10, 2018, NGPC leadership provided suggestions for expanded hunting and fishing opportunities on Service lands in Nebraska. Their input was consistent with the Department of Interior Secretarial Order 3356, “Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories.” The refuge reviewed the operations and regulations for neighboring state wildlife management areas, public lands administered by other agencies (e.g., U.S. Forest Service), and other national wildlife refuges in Nebraska to find consistency, where possible. Additional conversations have occurred with local NGPC biologists in development of this EA and hunting plan. The Service will be sending a letter to the state summarizing efforts to increase hunting opportunity and align with state hunting regulations. We, the Service, will continue to consult and coordinate on specific aspects of the hunting plan to ensure safe and enjoyable recreational hunting opportunities. In the

near future, we will send a letter and the environmental assessment to the state asking to coordinate with them to adjust the hunting plan to align, where possible, with state management goals.

Refuge manager Steve Hicks also coordinated with Kelly Corman, Area Biologist, NGPC.

### **3.9 Tribal Consultation**

The Service mailed an invitation for comments to all tribes potentially affected by initiating an environmental assessment to open the refuge to hunting. The Service extended an invitation to engage in government-to-government consultation in accordance with Executive Order 13175. We did not receive any responses from tribes.

### **3.10 Public Outreach**

On April 1, 2020, the Service put the hunting plan and EA out for 30-day public review and comment. The refuge made the public aware of the availability of the final EA and hunting plan via public notices on the refuge's website, through local newspapers, and in Sandhills NWR Complex headquarters office. During the 30-day public comment period, the Service received comments from various individuals and from large non-governmental organizations, which are addressed below.

*Comment (1):* We received comments opposed to hunting coyote and bobcat on the refuge because it is deemed biologically unsound, contrary to the Service's mandate, and not supported by legally sufficient environmental analysis.

*Response:* The NWRSAA, as amended and passed by Congress, states that hunting, fishing, wildlife observation and photography, and environmental education and interpretation are to be treated as priority public uses throughout all the units of the Refuge System. Thus, provided they are found to be compatible, the Service endeavors to facilitate these public uses on the units of the Refuge System. Pursuant to the priority given to these public uses by the NWRSAA, the Service proposed expanding hunting opportunities, including hunting of coyote and bobcat, at Seier NWR.

The Service does not allow hunting if its effect would conflict with refuge purposes or the mission of the Service, including significant cumulative effects on individual species, federally listed species, or migratory birds.

We follow state hunting and fishing regulations, except for where we are more restrictive on individual stations, including state regulations concerning responsible hunting, or prohibitions on wanton waste (defined as "to intentionally waste something negligently or inappropriately"). Furbearer populations are monitored by the state and statewide harvest levels are adjusted accordingly. The Service follows state hunting regulations, but we do so within the regulations governing and the objectives set out by the Refuge System, as well as the purposes of each of its units. For example, Seier NWR will differ from the state's furbearer hunting regulations in the duration of the season, the hunting hours, and the allowance of hounds and electronic calls.

The refuge manager makes a decision about managing furbearer populations, including allowing hunting, only after careful examination to ensure the action would comply with relevant laws, policies, and directives. Furbearer populations are monitored by the State of Nebraska and statewide harvest levels are adjusted accordingly. We considered the impacts of hunting on

furbearer populations through the individual environmental assessment for the proposed hunting opening. We also considered the cumulative impacts of all proposed hunts in the 2020-2021 cumulative impacts report accompanying the proposed rule.

According to research (Landholt and Genoways 2000), coyote and bobcat are among the furbearer species whose populations have increased in Nebraska since 1941. Populations of coyotes have increased and expanded despite numerous control methods and increasing urbanization (Voight and Berg 1987). Further, although wolves and coyotes coexisted in the past, the extirpation of the larger wolves also has allowed coyotes to expand populations (Hamilton and Fox 1987). Harvest numbers of bobcats showed a minimal increase over the years, but increased resources may have helped them expand their geographic range in Nebraska. Although a variety of small mammals are taken by the bobcat, white-tailed deer are a significant part of their diet (Rolley 1987). Increased food and decreased predation by large predators have allowed Nebraska's population of deer to greatly expand in recent years.

These data support the Service's estimate that the hunting of bobcat and coyote at Seier NWR, as proposed, will result in an insignificant impact to the overall populations of these species in Nebraska.

If bobcats are harvested only rarely, and a very small percentage of the state's coyote population is hunted at the refuge as a result of the proposed action, we would expect a negligible impact to these species at the local and statewide level. Similarly, we would expect their removal to have a minimal impact on the ecosystem.

Through our analysis we have determined that hunting of coyote and bobcat are compatible uses at the refuge. We believe that current and proposed management actions at Seier NWR are ensuring the overall biological integrity and diversity of the wildlife and habitats entrusted to the Service.

The Service did not modify the proposal as a result of these comments.

*Comment (2):* We also received comments from birders and other nonconsumptive users of the Refuge System that other forms of recreation are important to them and to the economy in addition to hunting, and that some areas of the refuge should only be open to nonconsumptive users.

*Response:* Congress, through the NWRSA, as amended, envisioned that hunting, fishing, wildlife observation and photography, and environmental education and interpretation would all be treated as priority public uses of the Refuge System. Therefore, the Service facilitates all of these uses on refuges, as long as they are found compatible with the purposes of the specific refuge and the mission of the Refuge System.

We did not make any changes to the rule as a result of this comment.

*Comment (3):* We received a comment that any regulation changes should be postponed until public meetings are held.

*Response:* NEPA regulations require opportunities for the public to review proposals such as the ones presented by this refuge, and a time for the public to provide comments. When developing an EA, there is no NEPA requirement to hold public meetings as part of the public review and comment period on the proposed action. Since the Service values and seeks public participation for proposed actions, we like to hold public meetings whenever appropriate and necessary.

Unfortunately, due to ongoing nationwide gathering restrictions, and in following with departmental guidance, the Service did not organize public meetings to help prevent further spread of dangerous viruses and preserve public health. Since it is unclear when these national health guidelines will change, and we have the possibility of receiving public comments without the need for public meetings, we decided to not postpone a decision until public meetings may take place.

The Service did not modify the proposal as a result of this comment.

*Comment (4):* We received comments that wildlife refuges should not allow hunting.

*Response:* The word “refuge” includes the idea of providing a haven of safety for wildlife, and as such, hunting might seem an inconsistent use of the Refuge System. However, the NWRSA stipulates that hunting, if found compatible, is a legitimate and priority general public use of a refuge. In this case, the hunting opportunities in our proposal have been found to be compatible on this refuge (please see the final compatibility determination).

We did not make any changes to the rule as a result of this comment.

*Comment (5):* We received a comment that the Service has a legal duty to take a hard look to ensure that the biological integrity, diversity, and environmental health (BIDEH) of the system are maintained for the benefit of present and future generations of Americans. The commenter stated that the Service cannot act consistent with that duty when authorizing the hunting of ecologically important animal species.

*Response:* We do not allow hunting on a refuge if it is found incompatible with that individual refuge's purposes or with the mission of the Refuge System. Part of the mission of the Refuge System is to “ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans” (16 U.S. Code 668dd[a][4][B]). Therefore, each Service station manager uses “sound professional judgment” in making these inherently complex management decisions to ensure that each proposed action complies with this mandate (see the Service’s Service Manual at 603 FW 2.6.U., available online at [www.fws.gov/policy/603fw2.html](http://www.fws.gov/policy/603fw2.html)). Each manager incorporates field experience, knowledge of refuge resources, considerations of the refuge’s role within an ecosystem, applicable laws, and best available science in making these decisions. Service biologists and wildlife professionals, in consultation with the state, determine the optimal number of each game animal that should reside in an ecosystem and then establish hunt parameters (e.g., bag limits, sex ratios) based on those analyses. We carefully consider how a proposed hunt fits with individual refuge goals, objectives, and strategies before allowing the hunt. Based on the analysis in the EA, we did not find that the proposed action would have any significant impact on predator species such as mountain lion and bobcat, ecologically important furbearers such as beavers, or rare animals and, consequently, would have no significant impact on the BIDEH of refuges.

Several factors (addressed in our response to concerns over hunting opportunities at this refuge) make it unlikely that providing the proposed hunting opportunities would affect the BIDEH on the refuge.

The Service consistently coordinates with the state regarding the refuge’s hunting program. The Service looks at the state to monitor game and fish species populations and implement any adjustments to future harvests as needed under the existing state regulations to ensure sustainable

populations of predators, furbearers, and other ecologically important species; minimize cumulative impacts; and maintain the biological integrity, diversity, and ecological health of refuges and state-managed lands.

The Service did not modify the proposal as a result of this comment.

*Comment (6):* We received comments opposing the proposal to allow use of lead ammunition for hunting resident game because of concerns that it may lead to poisoning of eagles and other wildlife on the refuge. Some comments also asked the Service to consider an alternative that would require the use of nontoxic ammunition for all hunting on the refuge.

*Response:* The Service shares commenters' concerns regarding the bioavailability of lead in the environment and the fragments that can be deposited in killed game (see Nancy Golden, et al., "A Review and Assessment of Spent Lead Ammunition and Its Exposure and Effects to Scavenging Birds in the United States," which is available online at [www.fws.gov/midwest/refuges/Review%20and%20Assessment%20paper.pdf](http://www.fws.gov/midwest/refuges/Review%20and%20Assessment%20paper.pdf)). The impacts of spent lead on predators and scavengers on the refuge are analyzed in the EA in the cumulative impacts section. We also expect that expanding hunting opportunities would not substantially increase harvest or hunter numbers but would more likely provide additional opportunities for current hunters. As a result of the proposed action, the potential overall increase in and cumulative impact of lead in the environment, both in number of animals harvested and area impacted, is expected to be minor and would not make a significant contribution to the cumulative effects of lead at the local or state level.

In addition to potential impacts to wildlife, recent studies have found that lead ammunition can increase the risk to human health due to the ingestion of lead (Hunt et. al 2009). While no lead poisoning of humans has been documented from ingestion of wild game, some experts including the Center for Disease Control, have recommended the use of non-toxic bullets when hunting to avoid lead exposure and that pregnant women and children under six should not consume wild game shot with lead ammunition (Streater 2009). This recommendation comes after a study done in North Dakota found that those who ate wild game had significantly higher levels of lead in their blood than those who did not (Iqbal et. al 2009).

The Service encourages refuge-state partnerships to reach decisions on usage and will continue to encourage hunters and anglers to voluntarily use non-toxic ammunition and tackle for all harvest activities. Non-toxic ammunition is becoming more available as the demand for this ammunition increases (Kelly et al. 2011). Copper ammunition is a good alternative since it is less toxic and frangible than lead ammunition (Hunt et al. 2006). The Service's intent is to reduce the potential of lead poisoning to migratory birds and birds of prey, as well as lower the risk of lead exposure for humans ingesting wild game hunted on refuges.

The Service did not modify the proposal as a result of these comments.

*Comment (7):* We received a comment stating that the EA on this proposal is insufficient, and the Service must not publish a final EA or finding of no significant impact on activities at the refuge before it has accepted and analyzed all comments on the proposed rule, including on the cumulative impacts report.

*Response:* The Service disagrees with the assertion that the EA was insufficient for this proposal. We completed the EA, in compliance with NEPA, to evaluate the impacts of opening or expanding hunting opportunities on the refuge. The EA underwent regional review to address

and consider all proposed actions from a local and regional perspective, and to consider the cumulative impacts. After analyzing the impacts, we concluded that the proposed actions would not have significant impacts at the local or regional level. The commenters who have raised these environmental analysis concerns have provided no additional information that would change this analysis or our conclusion. We annually conduct management activities on the refuge that minimize or offset impacts of hunting on physical and cultural resources, including establishing designated areas for hunting, restricting levels of use, confining access and travel to designated locations, providing education programs and materials for hunters, and conducting law enforcement activities.

The Service is expanding opportunities for recreational hunting. Expanding opportunities does not necessarily result in increased impacts to the refuge resources. Overall, considering the decreasing trends in hunting generally and decreasing trends of hunting on refuges in general, we do not expect this proposal to have a significant impact on the environment. As noted by the Service in the final rule, hunter participation trends have been generally declining and some refuges attract a very small number of participants, and often participation rates decline over the course of a season.

After analyzing all comments received the Service did not find it necessary to modify the proposal.

*Comment (8):* One commenter noted that refuges in Nebraska have had drastic reductions in staffing over the last 15 years. Expansion of hunting and fishing will place an additional work load on already strained budgets and staff, especially law enforcement officers.

*Response:* Each refuge manager makes a decision regarding hunting and sport fishing on that particular refuge only after rigorous examination of the available information. Referencing a comprehensive conservation plan (CCP) is generally the first step a refuge manager takes. Our policy for managing refuges is to manage them in accordance with an approved CCP which, when implemented, will achieve refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; help achieve the goals of the National Wilderness Preservation System; and meet other mandates. The CCP guides management decisions and sets forth goals, objectives, and strategies to accomplish these ends. The next step for refuge managers is developing or referencing step-down plans, of which a hunting plan would be one. Part of the process for opening a refuge to hunting after completing the step-down plan is complying with NEPA (42 U.S. Code 4321 et seq.), such as conducting an environmental assessment accompanied by the appropriate decision documentation (record of decision, finding of no significant impact, or environmental action memorandum or statement). The rest of the elements in the opening package are an evaluation of Section 7 of the Endangered Species Act of 1973, as amended (16 U.S. Code 1531 et seq.); copies of letters requesting State and/or tribal involvement; and draft refuge-specific regulatory language. We make available the CCP, hunting plan, and NEPA documents, and request public comments on them, as well as on any proposed rule, before we allow hunting or sport fishing on a refuge.

In sum, this illustrates that the decision to allow hunting on a national wildlife refuge is not a quick or simple process. It is full of deliberation and discussion, including review of all available data to determine the relative health of a population before we allow it to be hunted.

In order to open or expand hunting or sport fishing on a refuge, we must find the activity compatible. In order to find an activity compatible, the activity must not “materially interfere or detract from” public safety, wildlife resources, or the purpose of the refuge. For the proposed openings and expansions, we determined that the proposed actions would not have these detrimental impacts and found the actions to be compatible.

Service policy (603 FW 2.12[7]) requires station managers to determine that adequate resources (including personnel, such as law enforcement) exist or can be provided by the Service or a partner to properly develop, operate, and maintain the use in a way that will not materially interfere with or detract from fulfillment of the refuge purpose(s) and the Service mission. If resources are lacking for establishment or continuation of wildlife-dependent recreational uses, the refuge manager will make reasonable efforts to obtain additional resources or outside assistance from states, other public agencies, local communities, and private and nonprofit groups before determining that the use is not compatible. When Service law enforcement resources are lacking, we are often able to rely upon state fish and game law-enforcement capacity to assist in enforcement of hunting and fishing regulations.

The Service did not modify the proposal as a result of this comment.

### 3.11 Determination

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

- 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: Steven Hicks, Project Leader, Sandhills NWR Complex

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

Name/Title: Noreen Walsh, Regional Director, Interior Regions 5 and 7, Lakewood, CO

### 3.12 References

Caudill, J.; Carver, E. 2019. Banking on Nature 2017: The Economic Contributions of National Wildlife Refuge Recreational Visitation to Local Communities. U.S. Fish and Wildlife Service, Falls Church, VA.

Hamilton, D. A., and L. B. Fox. 1987. Wild furbearer management in the midwestern United States. In M. Novak, J. A. Baker, M. E. Obbard, B. Malloch (eds.), Wild Furbearer Management and Conservation in North America. Ontario, Canada, Ontario Trappers Association: 1100-1116.

L. M. Landholt, and Hugh H. Genoways, 2000. Population Trends in Furbearers in Nebraska., University of Nebraska-Lincoln.

Nebraska Game and Parks Information Guide, January 31, 2017.

<[www.outdoornebraska.gov/wp-content/uploads/2017/02/Information-Guide-1-31-17-low-res.pdf](http://www.outdoornebraska.gov/wp-content/uploads/2017/02/Information-Guide-1-31-17-low-res.pdf)>

Raftovich, R.V.; Chandler, S.C.; Fleming, K.K. 2018. Migratory Bird Hunting Activity and Harvest during the 2016–17 and 2017–2018 Hunting Seasons. U.S. Fish and Wildlife Service, Laurel, MD.

Rolley, R. E. 1987. Bobcat. In M. Novak, J. A. Baker, M. E. Obbard, B. Malloch (eds.), Wild Furbearer Management and Conservation in North America. Ontario, Canada, Ontario Trappers Association: 670-68 1.

Schneider, R.; Stoner, K.; Steinauer, G.; Panella, M.; Humpert, M., editors. 2011. The Nebraska Natural Legacy Project: State Wildlife Action Plan. 2nd ed. The Nebraska Game and Parks Commission, Lincoln, NE.

[USFWS] U.S. Fish and Wildlife Service. 2018. Waterfowl Population Status, 2018. U.S. Department of Interior, Washington, D.C. <[www.fws.gov/migratorybirds/pdf/surveys-and-data/Population-status/Waterfowl/WaterfowlPopulationStatusReport18.pdf](http://www.fws.gov/migratorybirds/pdf/surveys-and-data/Population-status/Waterfowl/WaterfowlPopulationStatusReport18.pdf)>

Voight, D. R., and W.E. Berg. 1987. Coyote. In M. Novak, J. A. Baker, M. E. Obbard, B. Malloch (eds.), Wild Furbearer Management and Conservation in North America. Ontario, Canada, Ontario Trappers Association: 344-357.

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

<b>Statutes, Executive Orders, and Regulations</b>
<b>Cultural Resources</b>
<p>American Indian Religious Freedom Act, as amended, 42 U.S.C. 1996 – 1996a; 43 CFR Part 7</p> <p>Antiquities Act of 1906, 16 U.S.C. 431–433; 43 CFR Part 3</p> <p>Archaeological Resources Protection Act of 1979, 16 U.S.C. 470aa – 470mm; 18 CFR Part 1312; 32 CFR Part 229; 36 CFR Part 296; 43 CFR Part 7</p> <p>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</p> <p>Paleontological Resources Protection Act, 16 U.S.C. 470aaa – 470aaa-11</p> <p>Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001–3013; 43 CFR Part 10</p> <p>Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Fed. Reg. 8921 (1971)</p> <p>Executive Order 13007 – Indian Sacred Sites, 61 Fed. Reg. 26771 (1996)</p>
<b>Fish and Wildlife</b>
<p>Bald and Golden Eagle Protection Act, as amended, 16 U.S.C. 668–668c, 50 CFR 22</p> <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>Lacey Act, as amended, 16 U.S.C. 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904</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>
<b>Natural Resources</b>
<p>Clean Air Act, as amended, 42 U.S.C. 7401–7671q; 40 CFR Parts 23, 50, 51, 52, 58, 60, 61, 82, and 93; 48 CFR Part 23</p> <p>Wilderness Act, 16 U.S.C. 1131 et seq.</p> <p>Wild and Scenic Rivers Act, 16 U.S.C. 1271 et seq.</p> <p>Executive Order 13112 – Invasive Species, 64 Fed. Reg. 6183 (1999)</p>
<b>Water Resources</b>
<p>Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S.C. 1251 et seq.; 33 CFR Parts 320-330; 40 CFR Parts 110, 112, 116, 117, 230–232, 323, and 328</p> <p>Safe Drinking Water Act of 1974, 42 U.S.C. 300f et seq.; 40 CFR Parts 141–148</p> <p>Executive Order 11988 – Floodplain Management, 42 Fed. Reg. 26951 (1977)</p> <p>Executive Order 11990 – Protection of Wetlands, 42 Fed. Reg. 26961 (1977)</p>

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

## APPENDIX B FINDING OF NO SIGNIFICANT IMPACT

### FINDING OF NO SIGNIFICANT IMPACT AND DECISION TO OPEN HUNTING FOR RESIDENT GAME AND MIGRATORY BIRDS

#### JOHN W. AND LOUISE SEIER NATIONAL WILDLIFE REFUGE

##### *Rock County, Nebraska*

The United States (U.S.) Fish and Wildlife Service (Service) is proposing to open hunting opportunities for resident game and migratory birds on the John W. and Louise Seier (Seier) National Wildlife Refuge (NWR) in accordance with the refuge's conceptual management plan. Accordingly, the Service has prepared a new hunting plan to describe and implement the new hunt program and regulations on refuge lands.

#### **Selected Action**

***Alternative A – Proposed Action Alternative:*** Under this alternative, hunting opportunities would be opened for resident game and migratory birds within the entire area encompassed by the refuge boundary. Resident game hunting covers all non-migratory wildlife hunted in Nebraska under the Nebraska Game and Parks Commission (NGPC) hunting regulations. In Nebraska, resident game species include white-tailed deer, mule deer, pronghorn antelope, elk, badger, bobcat, coyote, fox, long-tailed weasel, mink, muskrat, opossum, prairie dog, porcupine, rabbit and hare, raccoon, skunk, squirrel, woodchuck, greater prairie chicken, grouse, partridge, pheasant, quail, and turkey. Migratory bird hunting covers waterfowl, dove, crow, rail, snipe, and woodcock.

All NGPC regulations and bag limits, as well as mitigation measures outlined in the hunting plan, would apply to hunting resident game species and migratory birds on the refuge, and all state and federal licenses, tags, permits, and stamps required to participate in hunting of the species under both of these categories would apply. The refuge will provide a brochure that shows maps of the refuge hunt program and contains pertinent rules and regulations.

Under this alternative, Service law enforcement officers and NGPC wardens would monitor the hunting program, and they would conduct license, possession limits, and gain access to compliance checks. Refuge staff would administer the hunting program by supporting parking areas, producing and updating the hunting brochure, answering the public's questions, and other associated activities.

This alternative was selected over the other alternatives because it offers the best opportunity for public hunting that would result in a minimal impact on physical and biological resources, maintain sustainable populations of resident game and migratory birds and meet the Service's mandates under the National Wildlife Refuge System Administration Act of 1966 (NWRSA) and Secretarial Order 3356. This alternative has the best opportunity to increase public satisfaction and opportunity to enjoy the refuge. The Service has also determined that hunting of

resident game and migratory birds would be compatible with the purposes of refuge and the mission of the National Wildlife Refuge System (Refuge System) (USFWS 2020b).

### **Other Alternatives Considered and Analyzed**

***Alternative B – No Action Alternative:*** Under this alternative, the refuge would have continued to be closed to all public uses, including hunting. Current habitat management activities for this refuge would continue, and no further coordination would occur with the NGPC to open hunting opportunities.

The No Action Alternative would not change use of, or have any impacts on, the refuge. It would not provide compatible wildlife-dependent recreational opportunities. It would not satisfy the Service's mandate under NWRSA or Secretarial Order 3356 to facilitate or provide more hunting opportunities on national wildlife refuges. It does not accomplish the goal in the conceptual management plan to facilitate compatible, wildlife-dependent recreational opportunities on refuge lands. It does not satisfy the purpose and need statement of the environmental assessment (EA).

### **Summary of Effects of the Selected Action**

An EA was prepared in compliance with the National Environmental Policy Act (NEPA) guidelines to provide a decision-making framework that (1) explored a reasonable range of alternatives to meet project objectives; (2) evaluated potential issues and impacts to the refuge, resources, and values; and (3) identified mitigation measures to lessen the degree or extent of these impacts. The EA evaluated the effects associated with two alternatives. It is incorporated as part of this finding.

Implementation of the agency's decision would be expected to result in the following environmental, social, and economic effects:

- We, the Service, anticipate that this action would have minimal impacts on the refuge. The potential take of most resident game and migratory bird species open to hunting on the refuge is likely negligible in proportion to regional or state harvest numbers and would not add significantly to the cumulative effects on the various species. Most migratory game bird hunters in the area would probably seek wetland habitats outside of the refuge, where these species are more common, rather than the uplands of the refuge. Direct impacts on refuge populations of some species (e.g., turkey or deer) would not be known until the hunting program is implemented. Expanded hunting opportunities would most likely result in increased temporary disturbance or displacement of hunted and non-hunted wildlife species from foot traffic moving through the area or from gunfire. There would be no impact on threatened or endangered species. There would be no conflict with other public uses, because there are currently no other public uses of the refuge. There would be a minimal impact on refuge management. The effects on refuge soils, geology, air quality, wetlands, and floodplains would all be considered to be nonexistent to negligible.
- No public-use conflicts would be expected since the refuge is currently closed to all public uses and the only public use being proposed for opening is hunting. Refuge management and operations would not be affected. There would be minimal additional expenses, due to developing and printing brochures and posting new signs, to open the

new hunting opportunities. Service law enforcement officers and NGPC wardens would conduct compliance checks. Participation is expected to be light and would not require significant time to conduct compliance checks. Although estimating the economic impact is difficult, it is anticipated to be very small, because participation is not expected to increase due to opening hunting of resident game and migratory birds.

Measures to mitigate or minimize adverse effects have been incorporated into the selected action. These measures include:

- Endangered whooping cranes may occasionally use the refuge for resting and feeding. If whooping cranes are present on the refuge in an area on or near the open hunting area, a closed buffer zone within the hunting area would be temporarily established. Additional hunting opportunities could create more forage for American burying beetles.
- Access to the site would be on foot from established parking areas, which would limit impacts to refuge resources. No additional or existing facilities, such as roads, trails, and parking lots, would be kept or constructed.
- Federal and state waterfowl hunting regulations do not allow possession or use of other than nontoxic shot. This regulation would remain and be enforced for migratory bird hunting on the refuge.
- Tree marking and electronic or photographic monitoring devices are prohibited. This would keep the untrammled appearance of the hunt area.

While refuges, by their nature, are unique areas protected for conservation of fish, wildlife, and habitat, the proposed action would not have a significant impact on refuge resources and uses for several reasons:

- Combined total harvest of all migratory birds at the refuge is estimated to be around 75 birds annually, which is a very small fraction of the migratory birds harvested in Nebraska in 2018. Annual hunting regulations for migratory birds within the U.S. are established at levels consistent with the current population status.
- Given the relatively small number of hunters and hunting pressure expected at the refuge, the estimated harvest numbers for resident species, consistent with recent years, would be similarly low. The trimming of the resident game species herds caused by hunting activities should support the overall health of the remaining herd.
- The proposed action would result in beneficial impacts to the human environment, including wildlife-dependent recreational opportunities and socioeconomics of the local economy, with only negligible adverse impacts to the human environment, such as other nonconsumptive users.
- The adverse direct and indirect effects of the proposed action on air, water, soil, habitat, and wildlife are expected to be minor and short-term.
- The Refuge System uses an adaptive management approach to all wildlife management on refuges, monitoring and re-evaluating the hunting opportunities on the refuge on an annual basis to ensure that the hunting programs continue to contribute to the biodiversity and ecosystem health of the refuge and that these opportunities do not contribute to any

cumulative impacts to habitat or wildlife from climate change, population growth and development, or local, state, or regional wildlife management.

- The proposed action, along with proposed mitigation measures, would ensure that there is low danger to the health and safety of refuge staff, visitors, federally listed species, and the hunters themselves.
- The proposed action is not in an ecologically sensitive area.
- The proposed action would not impact any threatened or endangered species with the use of temporarily closed buffer zones when necessary; or any federally-designated critical habitat.
- The proposed action would not impact any cultural or historical resources.
- The proposed action would not have a detrimental impact on the refuge's wilderness areas.
- There is no scientific controversy over the effects of this proposed action and the effects of the proposed action are relatively certain.
- The proposal is not expected to have any significant adverse effects on wetlands and floodplains, pursuant to Executive Orders 11990 and 11988 because the action of opening the refuge to migratory bird and resident game hunting would not cause any destruction or degradation of wetlands or result in any floodplain development.

The Service believes that hunting on the refuge would not have a significant impact on local, regional, or Central Flyway migratory bird populations because the percentage likely to be taken on the refuge would be a tiny fraction of the estimated populations. In addition, overall populations would continue to be monitored and future harvests would be adjusted as needed under the existing flyway and state regulatory processes. Additional hunting would not add more than slightly to the cumulative impacts to waterfowl stemming from hunting at the local, regional, or flyway levels, and would only result in minor, negative impacts to migratory waterfowl populations.

### **Public Review**

The proposal has been thoroughly coordinated with all interested or affected parties. Parties contacted include:

#### ***Coordination with Nebraska Game and Parks Commission***

Various conversations concerning public hunting at the refuge were held with NGPC, including regionally and with their state leadership. The NGPC was informed during the development of the refuge's conceptual management plan, which included discussion on hunting. Within the last six months, one-on-one conversations have also taken place locally, regionally, and with state leadership. The NGPC has consistently supported opening refuge to hunting, including migratory birds and resident game, according to applicable state regulations. NGPC provided comments and recommendations on opening and expanding the refuge's hunting program to the Service. These comments and recommendations were instrumental in the development of the hunting plan in accordance with NGPC seasons, regulations, and bag limits.

The Service provided NGPC the draft EA, hunting plan, and compatibility determination for review during the 30-day comment period. NGPC expressed their support for the proposed action to open the refuge to hunting migratory birds and resident game. We will continue to consult and coordinate on specific aspects of the hunting plan with NGPC to ensure safe and enjoyable recreational hunting opportunities.

### ***Tribal Coordination***

The Service mailed an invitation for comments to all tribes potentially impacted by initiating an EA to open the refuge to migratory bird and resident game hunting. The Service extended an invitation to engage in government-to-government consultation in accordance with Executive Order 13175. We did not receive any responses from tribes.

### ***Public Comment***

On April 1, 2020, the Service put the draft EA, hunting plan, and compatibility determination out for 30-day public review and comment. The Service received comments from various individuals and from large non-governmental organizations, which are addressed below.

*Comment (1):* We received comments opposed to hunting coyote and bobcat on the refuge because it is deemed biologically unsound, contrary to the Service's mandate, and not supported by legally sufficient environmental analysis.

*Response:* The NWRSA, as amended and passed by Congress, states that hunting, fishing, wildlife observation and photography, and environmental education and interpretation are to be treated as priority public uses throughout all the units of the Refuge System. Thus, provided they are found to be compatible, the Service endeavors to facilitate these public uses on the units of the Refuge System. Pursuant to the priority given to these public uses by the NWRSA, the Service proposed expanding hunting opportunities, including hunting of coyote and bobcat, at Seier NWR.

The Service does not allow hunting if its effect would conflict with refuge purposes or the mission of the Service, including significant cumulative effects on individual species, federally listed species, or migratory birds.

We follow state hunting and fishing regulations, except for where we are more restrictive on individual stations, including state regulations concerning responsible hunting, or prohibitions on wanton waste (defined as "to intentionally waste something negligently or inappropriately"). Furbearer populations are monitored by the state and statewide harvest levels are adjusted accordingly. The Service follows state hunting regulations, but we do so within the regulations governing and the objectives set out by the Refuge System, as well as the purposes of each of its units. For example, Seier NWR will differ from the state's furbearer hunting regulations in the duration of the season, the hunting hours, and the allowance of hounds and electronic calls.

The refuge manager makes a decision about managing furbearer populations, including allowing hunting, only after careful examination to ensure the action would comply with relevant laws, policies, and directives. Furbearer populations are monitored by the State of Nebraska and statewide harvest levels are adjusted accordingly. We considered the impacts of hunting on furbearer populations through the individual environmental assessment for the proposed hunting opening. We also considered the cumulative impacts of all proposed hunts in the 2020-2021 cumulative impacts report accompanying the proposed rule.

According to research (Landholt and Genoways 2000), coyote and bobcat are among the furbearer species whose populations have increased in Nebraska since 1941. Populations of coyotes have increased and expanded despite numerous control methods and increasing urbanization (Voight and Berg 1987). Further, although wolves and coyotes coexisted in the past, the extirpation of the larger wolves also has allowed coyotes to expand populations (Hamilton and Fox 1987). Harvest numbers of bobcats showed a minimal increase over the years, but increased resources may have helped them expand their geographic range in Nebraska. Although a variety of small mammals are taken by the bobcat, white-tailed deer are a significant part of their diet (Rolley 1987). Increased food and decreased predation by large predators have allowed Nebraska's population of deer to greatly expand in recent years.

These data support the Service's estimate that the hunting of bobcat and coyote at Seier NWR, as proposed, will result in an insignificant impact to the overall populations of these species in Nebraska.

If bobcats are harvested only rarely, and a very small percentage of the state's coyote population is hunted at the refuge as a result of the proposed action, we would expect a negligible impact to these species at the local and statewide level. Similarly, we would expect their removal to have a minimal impact on the ecosystem.

Through our analysis we have determined that hunting of coyote and bobcat are compatible uses at the refuge. We believe that current and proposed management actions at Seier NWR are ensuring the overall biological integrity and diversity of the wildlife and habitats entrusted to the Service.

The Service did not modify the proposal as a result of these comments.

*Comment (2):* We also received comments from birders and other nonconsumptive users of the Refuge System that other forms of recreation are important to them and to the economy in addition to hunting, and that some areas of the refuge should only be open to nonconsumptive users.

*Response:* Congress, through the NWRSA, as amended, envisioned that hunting, fishing, wildlife observation and photography, and environmental education and interpretation would all be treated as priority public uses of the Refuge System. Therefore, the Service facilitates all of these uses on refuges, as long as they are found compatible with the purposes of the specific refuge and the mission of the Refuge System.

We did not make any changes to the rule as a result of this comment.

*Comment (3):* We received a comment that any regulation changes should be postponed until public meetings are held.

*Response:* NEPA regulations require opportunities for the public to review proposals such as the ones presented by this refuge, and a time for the public to provide comments. When developing an EA, there is no NEPA requirement to hold public meetings as part of the public review and comment period on the proposed action. Since the Service values and seeks public participation for proposed actions, we like to hold public meetings whenever appropriate and necessary. Unfortunately, due to ongoing nationwide gathering restrictions, and in following with departmental guidance, the Service did not organize public meetings to help prevent further spread of dangerous viruses and preserve public health. Since it is unclear when these national health guidelines will change, and we have the possibility of receiving public comments without

the need for public meetings, we decided to not postpone a decision until public meetings may take place.

The Service did not modify the proposal as a result of this comment.

*Comment (4):* We received comments that wildlife refuges should not allow hunting.

*Response:* The word “refuge” includes the idea of providing a haven of safety for wildlife, and as such, hunting might seem an inconsistent use of the Refuge System. However, the NWRSA stipulates that hunting, if found compatible, is a legitimate and priority general public use of a refuge. In this case, the hunting opportunities in our proposal have been found to be compatible on this refuge (please see the final compatibility determination).

We did not make any changes to the rule as a result of this comment.

*Comment (5):* We received a comment that the Service has a legal duty to take a hard look to ensure that the biological integrity, diversity, and environmental health (BIDEH) of the system are maintained for the benefit of present and future generations of Americans. The commenter stated that the Service cannot act consistent with that duty when authorizing the hunting of ecologically important animal species.

*Response:* We do not allow hunting on a refuge if it is found incompatible with that individual refuge's purposes or with the mission of the Refuge System. Part of the mission of the Refuge System is to “ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans” (16 U.S. Code 668dd[a][4][B]). Therefore, each Service station manager uses “sound professional judgment” in making these inherently complex management decisions to ensure that each proposed action complies with this mandate (see the Service’s Service Manual at 603 FW 2.6.U., available online at [www.fws.gov/policy/603fw2.html](http://www.fws.gov/policy/603fw2.html)). Each manager incorporates field experience, knowledge of refuge resources, considerations of the refuge’s role within an ecosystem, applicable laws, and best available science in making these decisions. Service biologists and wildlife professionals, in consultation with the state, determine the optimal number of each game animal that should reside in an ecosystem and then establish hunt parameters (e.g., bag limits, sex ratios) based on those analyses. We carefully consider how a proposed hunt fits with individual refuge goals, objectives, and strategies before allowing the hunt. Based on the analysis in the EA, we did not find that the proposed action would have any significant impact on predator species such as mountain lion and bobcat, ecologically important furbearers such as beavers, or rare animals and, consequently, would have no significant impact on the BIDEH of refuges.

Several factors (addressed in our response to concerns over hunting opportunities at this refuge) make it unlikely that providing the proposed hunting opportunities would affect the BIDEH on the refuge.

The Service consistently coordinates with the state regarding the refuge’s hunting program. The Service looks at the state to monitor game and fish species populations and implement any adjustments to future harvests as needed under the existing state regulations to ensure sustainable populations of predators, furbearers, and other ecologically important species; minimize cumulative impacts; and maintain the biological integrity, diversity, and ecological health of refuges and state-managed lands.

The Service did not modify the proposal as a result of this comment.

*Comment (6):* We received comments opposing the proposal to allow use of lead ammunition for hunting resident game because of concerns that it may lead to poisoning of eagles and other wildlife on the refuge. Some comments also asked the Service to consider an alternative that would require the use of nontoxic ammunition for all hunting on the refuge.

*Response:* The Service shares commenters' concerns regarding the bioavailability of lead in the environment and the fragments that can be deposited in killed game (see Nancy Golden, et al., "A Review and Assessment of Spent Lead Ammunition and Its Exposure and Effects to Scavenging Birds in the United States," which is available online at [www.fws.gov/midwest/refuges/Review%20and%20Assessment%20paper.pdf](http://www.fws.gov/midwest/refuges/Review%20and%20Assessment%20paper.pdf)). The impacts of spent lead on predators and scavengers on the refuge are analyzed in the EA in the cumulative impacts section. We also expect that expanding hunting opportunities would not substantially increase harvest or hunter numbers but would more likely provide additional opportunities for current hunters. As a result of the proposed action, the potential overall increase in and cumulative impact of lead in the environment, both in number of animals harvested and area impacted, is expected to be minor and would not make a significant contribution to the cumulative effects of lead at the local or state level.

In addition to potential impacts to wildlife, recent studies have found that lead ammunition can increase the risk to human health due to the ingestion of lead (Hunt et. al 2009). While no lead poisoning of humans has been documented from ingestion of wild game, some experts including the Center for Disease Control, have recommended the use of non-toxic bullets when hunting to avoid lead exposure and that pregnant women and children under six should not consume wild game shot with lead ammunition (Streater 2009). This recommendation comes after a study done in North Dakota found that those who ate wild game had significantly higher levels of lead in their blood than those who did not (Iqbal et. al 2009).

The Service encourages refuge-state partnerships to reach decisions on usage and will continue to encourage hunters and anglers to voluntarily use non-toxic ammunition and tackle for all harvest activities. Non-toxic ammunition is becoming more available as the demand for this ammunition increases (Kelly et al. 2011). Copper ammunition is a good alternative since it is less toxic and frangible than lead ammunition (Hunt et al. 2006). The Service's intent is to reduce the potential of lead poisoning to migratory birds and birds of prey, as well as lower the risk of lead exposure for humans ingesting wild game hunted on refuges.

The Service did not modify the proposal as a result of these comments.

*Comment (7):* We received a comment stating that the EA on this proposal is insufficient, and the Service must not publish a final EA or finding of no significant impact on activities at the refuge before it has accepted and analyzed all comments on the proposed rule, including on the cumulative impacts report.

*Response:* The Service disagrees with the assertion that the EA was insufficient for this proposal. We completed the EA, in compliance with NEPA, to evaluate the impacts of opening or expanding hunting opportunities on the refuge. The EA underwent regional review to address and consider all proposed actions from a local and regional perspective, and to consider the cumulative impacts. After analyzing the impacts, we concluded that the proposed actions would not have significant impacts at the local or regional level. The commenters who have raised these environmental analysis concerns have provided no additional information that would change this analysis or our conclusion. We annually conduct management activities on the refuge that

minimize or offset impacts of hunting on physical and cultural resources, including establishing designated areas for hunting, restricting levels of use, confining access and travel to designated locations, providing education programs and materials for hunters, and conducting law enforcement activities.

The Service is expanding opportunities for recreational hunting. Expanding opportunities does not necessarily result in increased impacts to the refuge resources. Overall, considering the decreasing trends in hunting generally and decreasing trends of hunting on refuges in general, we do not expect this proposal to have a significant impact on the environment. As noted by the Service in the final rule, hunter participation trends have been generally declining and some refuges attract a very small number of participants, and often participation rates decline over the course of a season.

After analyzing all comments received the Service did not find it necessary to modify the proposal.

*Comment (8):* One commenter noted that refuges in Nebraska have had drastic reductions in staffing over the last 15 years. Expansion of hunting and fishing will place an additional work load on already strained budgets and staff, especially law enforcement officers.

*Response:* Each refuge manager makes a decision regarding hunting and sport fishing on that particular refuge only after rigorous examination of the available information. Referencing a comprehensive conservation plan (CCP) is generally the first step a refuge manager takes. Our policy for managing refuges is to manage them in accordance with an approved CCP which, when implemented, will achieve refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; help achieve the goals of the National Wilderness Preservation System; and meet other mandates. The CCP guides management decisions and sets forth goals, objectives, and strategies to accomplish these ends. The next step for refuge managers is developing or referencing step-down plans, of which a hunting plan would be one. Part of the process for opening a refuge to hunting after completing the step-down plan is complying with NEPA (42 U.S. Code 4321 et seq.), such as conducting an environmental assessment accompanied by the appropriate decision documentation (record of decision, finding of no significant impact, or environmental action memorandum or statement). The rest of the elements in the opening package are an evaluation of Section 7 of the Endangered Species Act of 1973, as amended (16 U.S. Code 1531 et seq.); copies of letters requesting State and/or tribal involvement; and draft refuge-specific regulatory language. We make available the CCP, hunting plan, and NEPA documents, and request public comments on them, as well as on any proposed rule, before we allow hunting or sport fishing on a refuge.

In sum, this illustrates that the decision to allow hunting on a national wildlife refuge is not a quick or simple process. It is full of deliberation and discussion, including review of all available data to determine the relative health of a population before we allow it to be hunted.

In order to open or expand hunting or sport fishing on a refuge, we must find the activity compatible. In order to find an activity compatible, the activity must not “materially interfere or detract from” public safety, wildlife resources, or the purpose of the refuge. For the proposed openings and expansions, we determined that the proposed actions would not have these detrimental impacts and found the actions to be compatible.

Service policy (603 FW 2.12[7]) requires station managers to determine that adequate resources (including personnel, such as law enforcement) exist or can be provided by the Service or a partner to properly develop, operate, and maintain the use in a way that will not materially interfere with or detract from fulfillment of the refuge purpose(s) and the Service mission. If resources are lacking for establishment or continuation of wildlife-dependent recreational uses, the refuge manager will make reasonable efforts to obtain additional resources or outside assistance from states, other public agencies, local communities, and private and nonprofit groups before determining that the use is not compatible. When Service law enforcement resources are lacking, we are often able to rely upon state fish and game law-enforcement capacity to assist in enforcement of hunting and fishing regulations.

The Service did not modify the proposal as a result of this comment.

### **Finding of No Significant Impact**

Based upon a review and evaluation of the information contained in the EA, as well as other documents and actions of record affiliated with this proposal, the Service has determined that the proposal to implement hunting of migratory birds and resident game species, as well as expand existing hunting opportunities on John W. and Louise Seier NWR does not constitute a major federal action significantly affecting the quality of the human environment under the meaning of Section 102 (2) (c) of NEPA. As such, an environmental impact statement is not required.

### **Decision**

The Service has decided to open hunting of migratory birds and resident game species on John W. and Louise Seier NWR. These hunting opportunities will conform with NGPC hunting regulations, seasons, and bag limits that comply with Refuge System regulations.

This action is compatible with the purposes of the refuge and the mission of the Refuge System (see the final compatibility determination).

The action is consistent with applicable laws and policies regarding the establishment of hunting on national wildlife refuges. Refuge-specific regulations promulgated in conjunction with this action for are in the process of being finalized (see 85 FR 20030). This action will not be implemented until the regulations are finalized.

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Noreen Walsh  
Regional Director, Interior Regions 5 and 7  
U.S. Fish and Wildlife Service  
Lakewood, CO

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Date

**APPENDIX C INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM –  
REGION 6**

Originating Person: Steven A. Hicks

Date Submitted: 1/27/2020

Telephone Number: (402) 376-3789

**I. Service Program and Geographic Area or Station Name:** John W. and Louise Seier (Seier) National Wildlife Refuge (NWR)

**II. Flexible Funding Program:** N/A

**III. Location:** Rock County, NE, Headquarters located at lat 42.193619o lon -99.605643o; T26N, R20W, Sec 26.

**IV. Species/Critical Habitat:**

The hunting area is within the range and potential habitat of seven federally-listed species.

**Whooping crane (*Grus americana*)**

Whooping cranes primarily roost and forage within and along the channels of major river systems, floodplains, and wetlands where suitable undisturbed habitat exists. Major rivers frequented by whooping cranes include the central Platte, North Platte, Niobrara, and Loup River systems. Wetland complexes frequently used by whooping cranes include the western Rainwater Basins, Sandhill wetlands, and central table playas. No records exist that document whooping cranes using Seier NWR as stopover habitat.

**Piping plover (*Charadrius melodus*)**

In the Northern Great Plains, piping plovers breed and raise young on sparsely vegetated sandbars and reservoir shorelines on river systems as well as on the shorelines of alkaline lakes. The Seier NWR does not have this type of habitat. No records show presence of piping plovers at the Seier NWR.

**Least tern (*Sterna antillarum*)**

Interior least terns breed in the Mississippi and Rio Grande River basins from Montana to Texas and from eastern New Mexico and Colorado to Indiana and Louisiana. From late April to August they occur primarily on barren to sparsely vegetated riverine sandbars, dike field sandbar islands, sand and gravel pits, and lake and reservoir shorelines. The Seier NWR does not have this type of habitat. No records show presence of least terns at the Seier NWR.

**Blowout penstemon (*Penstemon haydenii*)**

Blowout penstemon populations occur in the Sandhills region of Nebraska. Plants occur at the top and typically northwest side of sand dunes in loose sandy soils that are open and prone to movement by wind activity. The Seier NWR is not prone to blowouts and has no classic blowout habitat. No records show presence of blowout penstemon at the Seier NWR.

**Western prairie-fringed orchid (*Platanthera praeclara*)**

The western prairie-fringed orchid (WPFO) exists in the Sandhills of central and western Nebraska and specifically occurs in the sandy soils of sub-irrigated meadows and prairie swales. While wet or mesic soils are present within the areas open for hunting, there are no records of WPFO at Seier NWR.

**American burying beetle (*Nicrophorus americanus*)**

The American burying beetle (ABB) has been documented in habitats having sandy and loess soils (grassland, woodland, and scrubland) in the Sandhills and Loess Hills regions of Nebraska. In the Sandhills, ABB primarily occupy mesic and lowland grassland habitats. The Seier NWR contains this type of habitat and most likely contains ABB.

**Northern long-eared bat (*Myotis septentrionalis*)**

During summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees. Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on suitability to retain bark or provide cavities or crevices. It has also been found, rarely, roosting in structures like barns and sheds. Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They typically use large caves or mines with large passages and entrances, constant temperatures, and high humidity with no air currents. Specific areas where they hibernate have very high humidity, so much so that droplets of water are often seen on their fur. Within hibernacula, surveyors find them in small crevices or cracks, often with only the nose and ears visible. There are no hibernacula at the Seier NWR. Northern long-eared bats may be present during summer using the few trees in wet areas on the refuge. There are no records of northern long-eared bats at Seier NWR.

**V. Project Description:**

Under the Proposed Action Alternative, the United States Fish and Wildlife Service (Service) would open the Seier NWR to hunting of resident game and migratory birds according to state and federal regulations. Resident game includes all non-migratory wildlife hunted in Nebraska under the Nebraska Game and Parks Commission (NGPC) hunting regulations. Resident game species included are: white-tailed deer, mule deer, pronghorn antelope, elk, badger, beaver, bobcat, coyote, fox, long-tailed weasel, mink, muskrat, opossum, prairie dog, porcupine, rabbit and hare, raccoon, skunk, squirrel, woodchuck, greater prairie chicken, grouse, partridge, pheasant, quail, and turkey. Migratory Birds include: waterfowl, dove, crow, rail, snipe, and woodcock.

Refuge-specific regulations will be published in the Federal Register as part of the Draft 2020–2021 Refuge-Specific Hunting and Sport Fishing Regulations.

- Dog use is not allowed during the nesting season of ground nesting birds.
- Camping is not allowed.
- Nontoxic shot is required for all shotgun use.
- Endangered whooping cranes could potentially use the Seier NWR for resting and feeding. If whooping cranes are present on the refuge, a closed buffer zone within the hunting area will be temporarily established.

This alternative offers increased opportunities for public hunting and fulfills the Service's mandate under the National Wildlife Refuge System Improvement Act of 1997. The Service has determined that the hunting plan is compatible with the purposes of the Seier NWR and the mission of the National Wildlife Refuge System.

## **VI. Determination of Effects:**

### **(A) Description of Effects:**

#### **Whooping crane**

Whooping cranes migrate through the Sandhills of Nebraska. No whooping cranes have been documented on the refuge. If whooping cranes are present on the refuge, a closed buffer zone will be temporarily established. The proposed use should have no effect on whooping cranes.

#### **American burying beetle**

Hunting activities may benefit any American burying beetles that might be present on the refuge because of a potential increase in carrion and gut piles. However, American burying beetles are usually inactive from early September to late May and therefore will be hibernating in the soil during most of the hunting seasons.

#### **Northern long-eared bat**

Northern long-eared bats may use trees on the refuge. There are no bat hibernacula located on the refuge. Bats are not a species confused with huntable species. Hunting activities should not disturb bats inside roost trees. The proposed use should have no effect on northern long-eared bats.

#### **Other species**

Potential presence of interior least tern, piping plover, blowout penstemon, and western prairie fringed orchid was evaluated. None of these species have been found within the refuge or have been documented on the refuge. Negative effects on the above mentioned listed species are not anticipated.

#### **Determination:**

*No Effect:* This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) individuals of listed/proposed/candidate species or designated/proposed critical habitat of such species. **No concurrence from ESFO required.**

#### **Response requested**

- Whooping crane
- Western prairie-fringed orchid
- Northern long-eared bat
- Piping plover
- Interior least tern
- Blowout penstemon

*May Affect but Not Likely to Adversely Affect:* This determination is appropriate when the proposed project is likely to cause insignificant, discountable, or wholly beneficial effects to individuals of listed species and/or designated critical habitat. **No concurrence from ESFO required.**

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- American burying beetle

*May Affect and Likely to Adversely Affect:* This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species and/or designated critical habitat. **Formal consultation with ESFO required.**

*May Affect and Likely to Adversely Affect but the proposed action is for the purpose of endangered or threatened species recovery and falls under Region 6's Programmatic Consultation on Service-initiated Recovery Actions:* This determination is appropriate when adverse effects are likely, but the project is designed to assist with recovery of listed species and/or designated critical habitat. **Concurrence from the ESFO that the project is covered by the programmatic consultation is required.**

*May Affect but Not Likely to Jeopardize candidate or proposed species/critical habitat:* This determination is appropriate when the proposed project may affect, but is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. **Concurrence from ESFO optional.**

*Likely to Jeopardize candidate or proposed species/critical habitat:* This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. **Conferencing with ESFO required.**

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Signature

Date

[Project Leader of originating station]

ES concurrence is not needed as per Exhibit 1, Director's Order 194, 04/17/2008.