

Final Environmental Assessment
for Hunting and Fishing on
Marais des Cygnes National Wildlife Refuge

July 2020

Prepared by

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Kansas National Wildlife Refuge Complex

Marais des Cygnes NWR

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Cost of Preparation of this Environmental Assessment: \$16,575.78

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Date: July 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 for badger, bobcat, mink, muskrat, fox, opossum, raccoon, striped skunk, weasel, and coyote on the 4,995-acre open unit on the Marais des Cygnes National Wildlife Refuge (NWR). The methods of take would be shotgun, muzzleloader, and archery. In addition, the Service proposes allowing crow, in compliance with state regulations and federal migratory bird regulations. Method of takes would be shotgun (nontoxic shot only) and archery. The refuge is located in Linn County, Kansas, along the Marais des Cygnes River (Figure 1).

The 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 proposed action. 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. The Service cannot open a refuge to hunting and fishing until a final rule is published in the Federal Register formally opening the refuge to hunting and fishing.

The hunting and fishing plan proposes to support existing hunting opportunities and provide new hunting opportunities on the 7,565-acre Marais des Cygnes NWR. The hunting program generally will follow State of Kansas regulations with respect to the target species, seasons, bag limits, and method of take. In certain instances, we may deviate from those regulations to meet refuge wildlife population, public use, and public safety goals. This plan may use members of the general public to participate in hunts at specific times and locations that are designed to provide unique hunter opportunities. These hunts will be conducted in cooperation with the Kansas Department of Wildlife, Parks, and Tourism (KDWPT).

Kansas National Wildlife Refuge (NWR) Complex

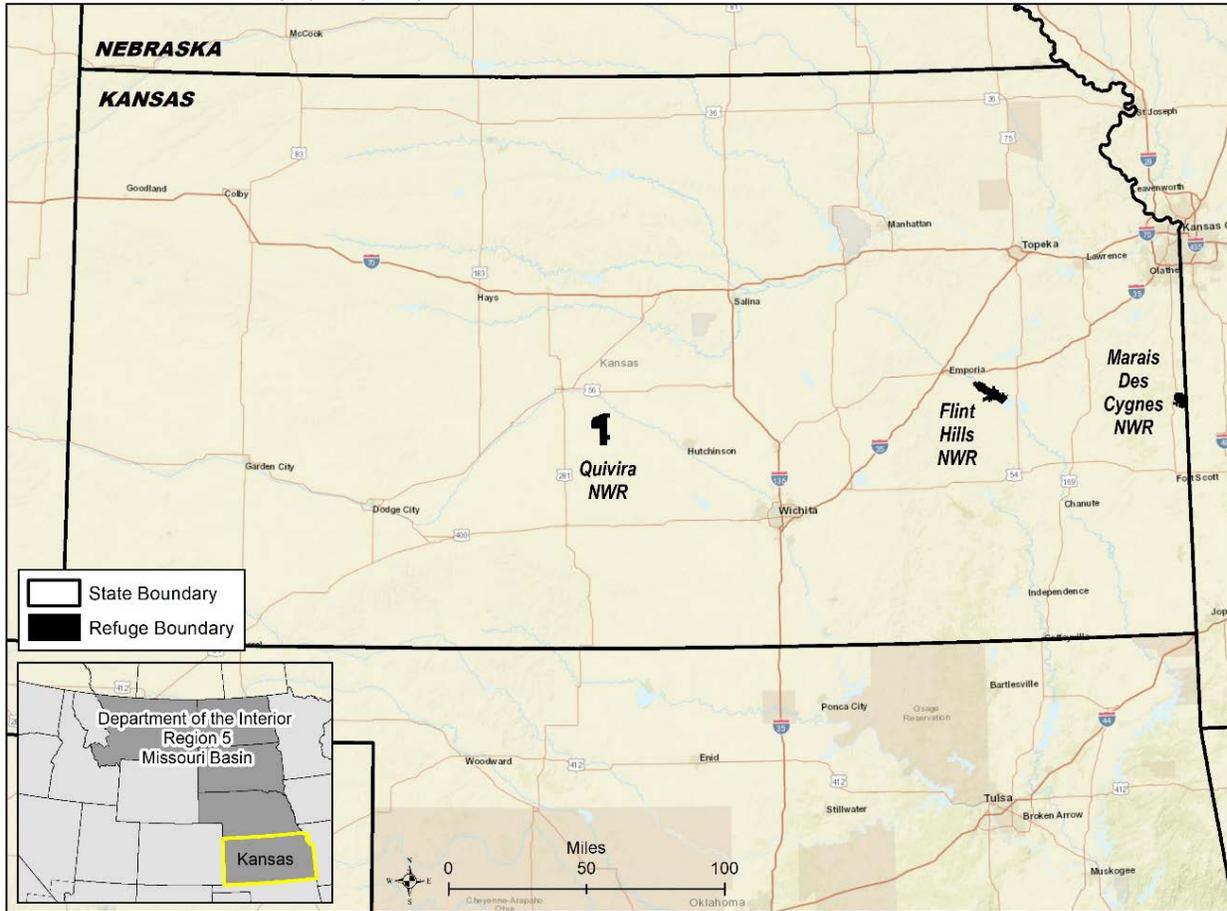


Figure 1. Area Map of Kansas National Wildlife Refuge Complex. (USFWS 2019)

1.2 Background

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

Establishing Legislation

Emergency Wetland Resources Act (1986): “The purpose of this Act is: “To promote the conservation of migratory waterfowl and to offset or prevent the serious loss of wetlands by the acquisition of wetlands and other essential habitat. And for other purposes, “. . . the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions”

Fish and Wildlife Act (1956): “. . . for the development and advancement, management, conservation and protection of fish and wildlife resources”

Refuge Purpose

“The Refuge was established in 1992 to protect bottomland hardwood habitats along the Marais des Cygnes River in Linn County (Marais des Cygnes National Wildlife Refuge decision document). Marais des Cygnes Basin, including threatened and endangered (T&E) species, will be preserved in coordination with partners. In addition, the refuge will serve as an area for wildlife-dependent environmental education, interpretation, and compatible recreational day use” (USFWS 1998, page 6).

Landscape Goal

Restore and maintain an area of Oak-Hickory Deciduous Forest Tallgrass Prairie Ecotone in as natural a condition as possible, to provide quality habitat for federally and state-listed species and support a diverse community of native plants and animals (USFWS 1998, p. 30).

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.

Two-thirds of the refuge (4,995 acres, or 66 percent) is open for hunting and other wildlife-dependent recreational uses. The refuge supports a 34 percent closure to hunting and public use (Figure 2).

1.3 Purpose and Need for the Proposed Action

The purpose of this proposed action is to provide compatible wildlife-dependent recreational opportunities on refuge. 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 NWR" and "ensure that opportunities are provided within the NWR for compatible wildlife-dependent recreational uses" (16 U.S. Code 668dd[a][4]). The need of the proposed action also meets the Service's implementation of Secretarial Order 3347, "Conservation Stewardship and Outdoor Recreation," and Secretarial Order 3356, "Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories," by expanding hunting opportunities and aligning Service regulations with state regulations.

A purpose of this hunting and fishing plan is to bring the refuge into alignment with KDWP regulations, as well as other national wildlife refuges in the Kansas. Furthermore, the coyote hunting proposal would provide consistency of regulations with the adjacent Marais des Cygnes State Wildlife Area, which shares a common border with the refuge. Simplifying regulations could assist with reducing the downward trend in hunters and anglers by providing for the recruitment, retention, and reactivation of sportsmen and women.

2.0 Alternatives

2.1 Alternatives Considered

Alternative A – Expand Hunting to Include Furbearer, Coyote and Crow – Proposed Action Alternative

The refuge has prepared a hunting and fishing plan, which is presented in this document as the Proposed Action Alternative. The proposed alternative would not open additional acres for hunting, but rather new species (crow, furbearers, and coyote). The closed unit (2,750 acres), historically closed to hunting, would remain so.

Furbearer and Coyote

Under the Proposed Action Alternative, the Service would open hunting for badger, bobcat, fox, mink, muskrat, opossum, raccoon, striped skunk, weasel, and coyote on the 4,995-acre open unit on the refuge in accordance with the refuge's hunting and fishing plan. No trapping or use of dogs to run furbearer or coyote is being proposed. Hunting for beaver and otter is not permitted by state regulations and is not proposed in this alternative. Methods of take for furbearers would include shotgun, muzzleloader, and archery. Dogs, vehicles, or bait may not be used to hunt furbearers or coyotes. Coyotes may not be hunted from a vehicle or a road. Electronic calls would be permitted for coyote and furbearer. Hunting would be permitted during daylight hours (one-half hour before legal sunrise until legal sunset). Hunting seasons would be consistent with state regulations.

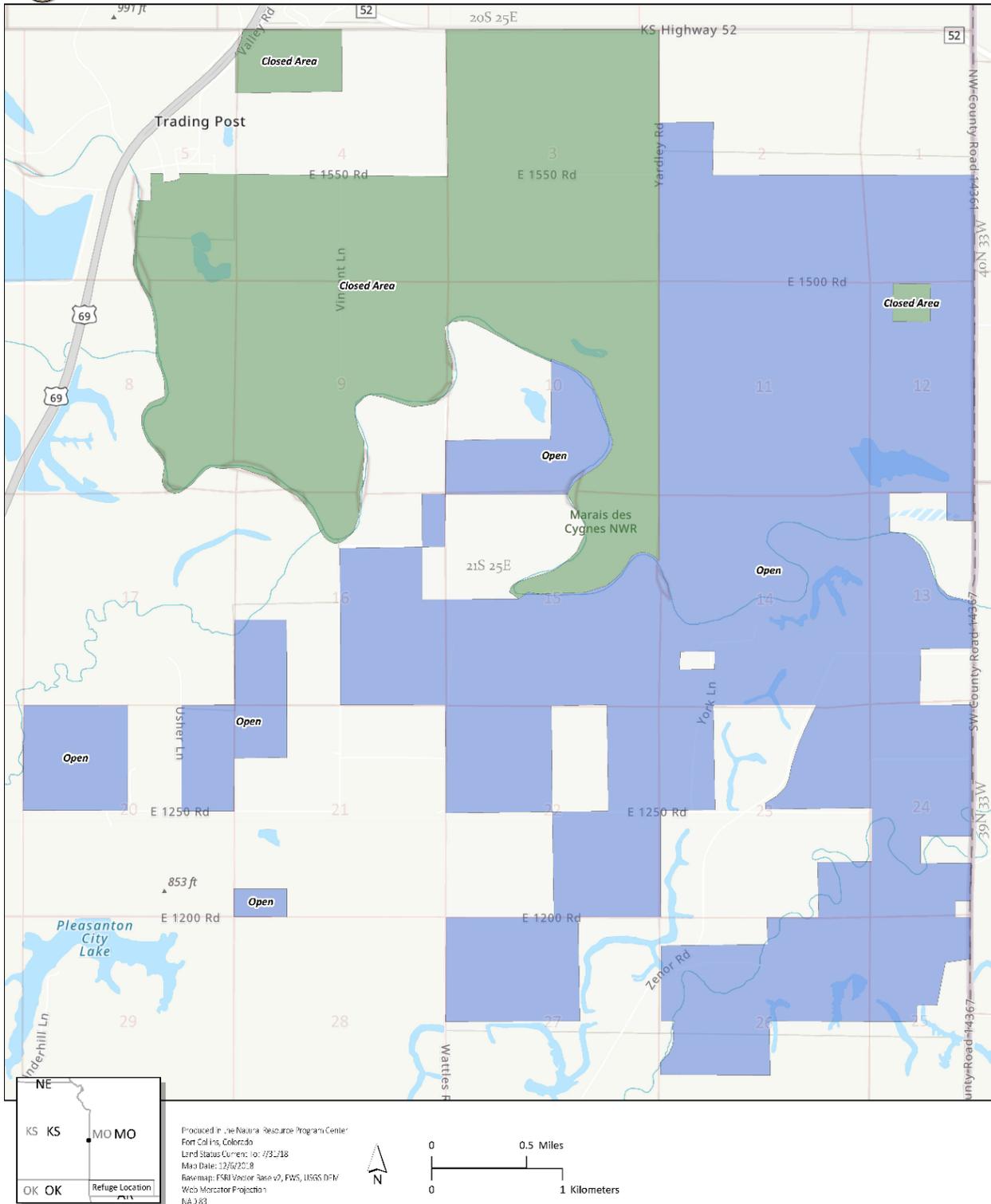


Figure 2. Vicinity Map Showing Open (Blue) Areas and Closed (Green) Areas of Marais des Cygnes National Wildlife Refuge.

Crow

Under the Proposed Action Alternative, the Service would open hunting for crow on the 4,995-acre open unit. Seasons and bag limits would follow state regulations. Methods of take would be limited to shotgun (nontoxic shot only) and archery.

Mitigation Measures to Avoid Conflicts

Mitigating measures include prohibiting the use of centerfire rifles to provide for public safety of the surrounding private landowners. In addition, the refuge is developing a hiking trail near the headquarters. When completed, this will provide recreation for hikers, birdwatchers, and photographers in a nonhunting portion of the refuge.

Under this alternative, the refuge law enforcement officer and/or KDWP wardens would monitor the hunts. They would conduct license, bag limit, and compliance checks.

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

Alternative B – Continue Current Management Strategies – No Action Alternative

Under the No Action Alternative, the refuge would continue to prohibit furbearer and coyote hunting, as well as crow hunting. Other hunting seasons would remain in place, as outlined in the refuge hunting regulations.

3.0 Affected Environment and Environmental Consequences

3.1 Affected Environment

The refuge consists of 7,565 acres of wetlands, riparian forests, tallgrass prairie, and agricultural lands. Established in 1992, the refuge is owned in fee by the Service as part of the Refuge System. Prior to refuge establishment, significant alterations occurred to vegetation and hydrology. Although much of the native tallgrass prairie was cleared for agriculture, native habitats still occur within bottomland hardwood forests, tallgrass prairie, and gravel beds harboring freshwater mussels. Former agricultural fields provide sites for restoration of hardwood forests, tallgrass prairie, and the creation of moist soil wetlands.

The refuge provides significant bottomland hardwood habitat in a 3,300-square-mile watershed which consists primarily of private land managed for agriculture. The majority of the watershed is dominated by grassland/pasture (59 percent of acreage) and cultivated crops (20 percent of acres). Shrublands account for one-tenth of one percent of acreage. Land cover data show only 11 percent of the acreage as forest, the majority of that on upland sites, with very little bottomland hardwood habitat. Therefore, bottomland hardwood habitats at the refuge offer something unique to the Marais des Cygnes River drainage: a bottomland hardwood forest that can be actively managed to counteract the regionally prevalent oak decline resulting from forest densification and reduced fire. Most forests in eastern Kansas are not actively managed, and therefore revert to shade-tolerant elm-ash-hackberry (Hodges 1997). Therefore, bottomland hardwood forests and shrub or scrub wetlands provide important migratory bird habitat along the Marais des Cygnes River. Mensik and Paveglio (2004) present management concepts that apply well to refuge habitats:

“Because many refuges are located in areas that have fragmented habitats as well as dramatically altered hydrology and vegetation, they are often islands of habitat surrounded by large urban areas or intensive agricultural development. Many of the refuges located along the Continent’s four major flyways were established to conserve and intensively manage nesting, migration, and wintering areas for migratory waterfowl and waterbirds.”

For more information regarding the affected environment, please see the refuge’s comprehensive conservation plan (www.fws.gov/mountain-prairie/refuges/mrs.php).

3.2 Environmental Consequences of the Action

This section analyzes the environmental consequences of the action on each affected resource, including direct and indirect effects. This EA 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
- impacts 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.

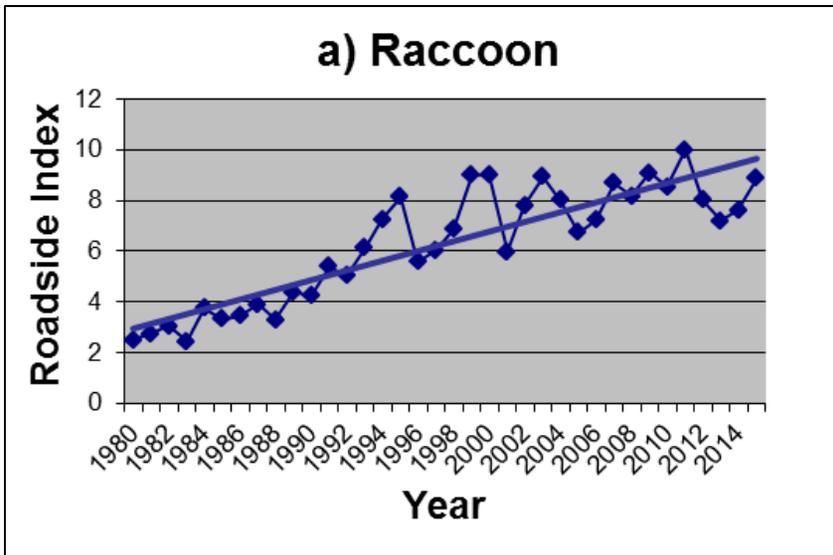
Table 1. Affected Natural Resources and Anticipated Direct and Indirect Impacts of the Proposed Action and Any Alternatives.

<p>Affected Resources</p>	<p><u>Alternative A (Proposed Action)</u></p> <p><i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i></p>	<p><u>Alternative B (No Action)</u></p> <p><i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i></p>
<p>Furbearer and Coyote</p>		
<p>At the statewide level in Kansas, these furbearer species have increasing population trends according to summer roadside surveys by the KDWPT (KDWPT 2018). Coyotes appeared ubiquitous across the refuge, and observed individuals looked relatively healthy.</p> <p>Hunters report seeing furbearers, particularly coyotes when they are deer and turkey hunting. These public users regularly inquire if coyote and raccoon hunting is a possibility at the refuge.</p> <p>The survey trends from 1967–2011 for these species are shown in Figure 3 and Figure 4.</p> <p>Refuge staff members report abundant coyotes and raccoons. The coyote population is dense enough that an unattended harvested deer is quickly shredded and devoured by coyotes. Raccoons are commonly seen during nighttime spotlight deer surveys.</p> <p>Other furbearers (opossum, striped skunk, badger, and fox) do not seem to be increasing as rapidly, either on the refuge, or throughout the state. Frequent flooding of the refuge likely reduces the populations of some species.</p>	<p>Furbearer hunting on the refuge would add to the opportunity and quality of outdoor recreation experience offered on the refuge. The refuge likely would see some “dedicated” raccoon hunters willing to hunt or call furbearers during the day. However, harvest would likely be dominated by incidental take. Deer hunters and squirrel hunters may encounter and harvest furbearers. Refuge law enforcement officers estimate that 20 dedicated raccoon hunters might take approximately 25-30 animals throughout the year. Estimated take of the other furbearer species would be even fewer than that of raccoon.</p>	<p>Furbearer and coyote hunting would continue to be prohibited on the refuge. Populations would likely continue increasing, as they are throughout the state.</p> <p>Neotropical migrant birds have declined continentally over several decades, and mid-sized predators are suspected as part of this problem. Raccoons are known nest predators (Staller et al. 2005). The refuge presents some of the western extent of prothonotary warblers. Within the refuge’s floodplain forests, raccoons are a likely nest predator of this species. Nest predation from these species would continue unabated.</p>

Affected Resources	<u>Alternative A (Proposed Action)</u> <i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i>	<u>Alternative B (No Action)</u> <i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i>
Crow		
<p>American crows are widespread, and long-term population trends continue to increase nationally and worldwide (Verbeek and Caffrey 2002: https://birdsna.org/Species-Account/bna/species/amecro/introduction). Crows are common on the refuge and did not show appreciable declines from the West Nile Virus introduction in the early 2000s.</p>	<p>Refuge law enforcement officers estimate that approximately 5 hunters would take advantage of this expanded hunting opportunity. The success rate would be somewhere around 50 percent. These effects are considered to be negligible due to the small number of hunters and the limited season in which these impacts occur.</p>	<p>Neutral effects on the population because hunting is not permitted under current conditions.</p>
Other Wildlife and Aquatic Species		
<p>The refuge supports a diversity of wildlife species of eastern Kansas, including game and nongame species, reptiles, amphibians, and invertebrates, which are important contributors to the overall biodiversity on the refuge. Songbirds breed at the refuge, whereas waterfowl, rails, and raptors primarily use the refuge as wintering and migratory habitat. The refuge supports 200 acres of managed wetlands within the nonhunting area. This habitat provides sanctuary and roosting areas for migratory birds and helps to offset potential disturbance effects.</p>	<p>Increased hunting may result in little disturbance to wildlife, since no additional units would be open to hunting. The open unit is already open to hunting during the proposed furbearer and coyote hunting season. Similarly, during the crow season, small game, deer, and migratory bird hunting is allowed in the open hunt unit.</p> <p>Hunting would not occur during the active breeding season for most birds; therefore, no disturbance is expected. However, coyotes are known to depredate white-tailed deer fawns and ground nesting birds such as northern bobwhite quail and turkeys (Cooper et al. 2015, Rollins and Carroll 2001, Staller et al. 2005). Raccoons are documented egg predators and opportunistically take multiple migratory bird species (Rollins and Carroll 2001, Staller et al. 2005). Furthermore, high densities of coyotes and raccoons can be reservoirs for distemper, rabies, West Nile Virus, round worm, mange, and likely other understudied diseases (Chronert et al. 2006, Fischer 1995). Some of these diseases are zoonotic, transmittable to humans. Visitors at the refuge enjoy seeing wildlife but do not want to contract diseases from those species.</p>	<p>Furbearer and coyote hunting would continue to be prohibited on the refuge. Populations likely would continue increasing, as they are throughout the state. Nest predation from these species would continue unabated.</p>

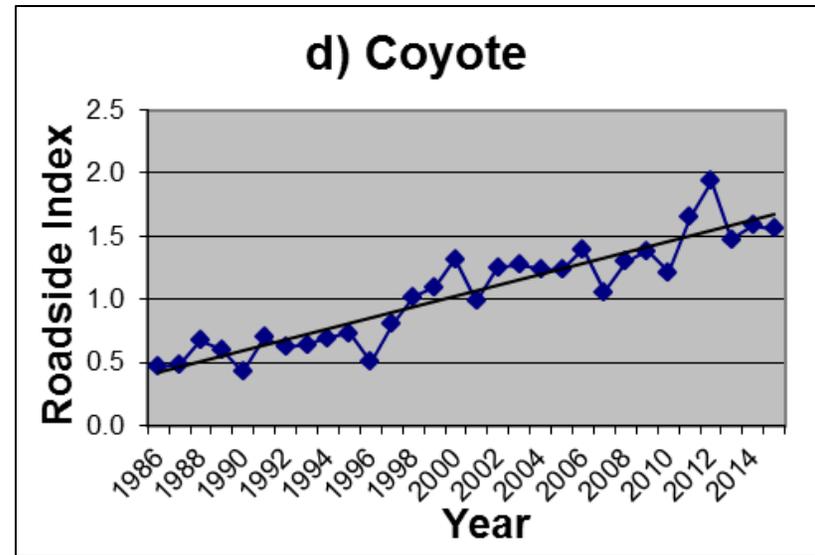
Affected Resources	<u>Alternative A (Proposed Action)</u> <i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i>	<u>Alternative B (No Action)</u> <i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i>
Threatened and Endangered Species and Other Special Status Species		
There are no threatened and endangered species or species of special management concern in the area of the proposed hunting expansion.	The proposed action and alternatives would not affect any species of special management concern.	This alternative would have no impact on threatened and endangered species.
Vegetation		
Forest vegetation may include Pin Oak, Silver maple, American sycamore, elm, pecan, green ash, hackberry, eastern cottonwood, willow, and oak species. Wetland species are mixed, but include shrubs such as coralberry, sedge, millet, and smartweed.	The proposed action would not affect any vegetation of special management concern.	If no changes are made to the hunting regulations, there would be no changes to vegetation species or structure.

Key: KDWPT = Kansas Department of Wildlife, Parks, and Tourism; NWR = National Wildlife Refuge



Source: KDWPT, Summer Roadside Survey (2015)

Figure 3. Kansas Survey Trend for Raccoon (1967–2011).



Source: KDWPT, Summer Roadside Survey (2015)

Figure 4. Kansas Survey Trend for Coyote (1967–2011).

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

<p>Affected Resources</p>	<p><u>Alternative A (Proposed Action)</u></p> <p><i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i></p>	<p><u>Alternative B (No Action)</u></p> <p><i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i></p>
<p>The refuge staff estimates that 7,000 people visit the refuge annually. This number does not include visitors who travel through the refuge on the several county roads that bisect refuge property.</p> <p>The refuge has been tasked with developing its visitor use opportunities, along with its connection to the greater Kansas City Area. The refuge hopes to add a staff member focused on developing these urban connections. The refuge also is planning trails and educational infrastructure to further this message.</p>	<p>Hunters are the primary constituency on the refuge, accounting for more than half of the total visits. Hunting furbearers, coyotes, and crow would be unlikely to disturb refuge visitors engaged in other priority public uses. Furbearer hunting season typically opens from mid-November through mid-February. This is a segment of the year with fewer birders and hikers. The proposed hunt should not conflict with other refuge wildlife-dependent recreational programs such as wildlife observation, wildlife photography, wildlife interpretation, environmental education, or fishing.</p> <p>Furthermore, expanded hunting opportunity could slow the downward trend in hunting at the refuge by providing for the recruitment, retention, and reactivation of sportsmen and women.</p>	<p>The visiting public would continue to be frustrated by a lack of furbearer and coyote hunting options at the refuge. Deer hunters would likely continue to express concern over the abundance of coyotes and predators they see while hunting from a deer stand.</p>

Key: NWR = National Wildlife Refuge

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

<p>Affected Resources</p>	<p><u>Alternative A (Proposed Action)</u></p> <p><i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i></p>	<p><u>Alternative B (No Action)</u></p> <p><i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i></p>
<p>Limited archeological work has been done in the refuge. Preliminary reconnaissance work done by the Kansas State Historical Society in conjunction with development on the Marais des Cygnes Waterfowl Management Area did not yield sites of archaeological significance. However, investigators did report that studies of contour maps of the region and reports of sites located in adjacent drainages indicate the area’s potential for the presence of archaeological sites. Currently, the most notable historical resource in the proposal area would be the old Fort Leavenworth-Fort Scott Military Road.</p> <p>The refuge also encompasses the remains of abandoned farmsteads and two community cemeteries. Agriculture and coal mining have been important economic activities in Linn County since the mid1800s. The refuge lies within the Pleasanton Coal Mining District. The earliest record of coal production in the district is in 1872. Several abandoned coal mines are present on the refuge. These include shaft and open pit mines—both large commercial operations and small family mines.</p>	<p>Because of the temporary and superficial use of refuge habitats during hunting and fishing activities, there should be no direct or indirect impacts on cultural resources under this alternative from visitors engaged in hunting and fishing activities, as delineated in the hunting and fishing plan. The Service has determined that, in accordance with the implementing regulations for Section 106 of the National Historic Preservation Act (36 CFR 800), “. . . the undertaking is a type of activity that does not have the potential to cause effects on historic properties, assuming such historic properties were present, [and] the agency official has no further obligations under Section 106 or 36 CFR 800.3(a)(1).”</p>	<p>Under this alternative, there would be no change to existing environmental conditions; subsequently, no direct or indirect effects on cultural resources would be anticipated.</p>

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

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

Affected Resources	<u>Alternative A (Proposed Action)</u> <i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i>	<u>Alternative B (No Action)</u> <i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i>
Land Use		
<p>The refuge has ongoing projects of habitat management and restoration of forests, shrublands, wetlands, and grasslands. Some of these activities (prescribed fire, tree plantings, water management, and wetland management) coincide with hunting seasons. The staff continues with this habitat work during hunting season, using the opportunity to engage and educate the public in land management.</p>	<p>This alternative likely would not cause any conflicts with the visitor use program. The expanded hunting opportunities would not be adversely affected. The refuge would continue to engage in habitat management and cooperative agriculture during the hunting season to ensure that the refuge meets its other management objectives.</p>	<p>Under the current hunting and fishing plan, there would be no change in the refuge management and operations.</p>
Administration		
<p>The refuge currently has law enforcement coverage from a federal officer, with additional coverage from KDWPT officers.</p>	<p>The expanded hunting opportunities would not require any additional cost for law enforcement. The proposed hunting seasons occur during months of the year when officers would be making other hunter contacts anyway. The hunts would occur in existing hunt units, thus requiring no new signage. The only local administrative change would be reprinting the refuge hunting brochure with the updated regulations. This occurs on an annual basis and would not require any additional expense.</p>	<p>Under the current hunting and fishing plan, there would be no change in refuge management and operations.</p>

Key: KDWPT = Kansas Department of Wildlife, Parks, and Tourism; NWR = National Wildlife Refuge

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

Affected Resources	<u>Alternative A (Proposed Action)</u> <i>No additional acres for hunting would be opened, but hunting of new species (crow, furbearers, and coyote) would be permitted. The closed unit on Marais des Cygnes NWR would remain so.</i>	<u>Alternative B (No Action)</u> <i>Hunting would continue as outlined in the refuge hunting regulations. Furbearer, coyote, and crow hunting would continue to be prohibited.</i>
Local and Regional Economies		
<p>The refuge is approximately a 1.5-hour drive from the Kansas City Metropolitan Area, with a population of 2.3 million. The city of Pleasanton, Kansas, where the refuge is located, has a stable population of more than 1,000 people. The predominant land uses in the vicinity of the refuge are grazing and non-irrigated farming. The refuge averages about 7,000 visitors per year.</p>	<p>Expenditures by hunters in Kansas averaged \$1,240 per year in 2011 (USDOI 2011). Expenditures in Kansas by wildlife watchers in 2011 averaged \$371 (USDOI 2011).</p> <p>The proposed alternative likely would increase hunting on the refuge not only by providing additional hunts, but also by simplifying regulations, bringing them more into alignment with state hunting regulations.</p>	<p>Under the No Action Alternative, there would be no change to the existing refuge hunting program, nor would there be any additional impacts on local and regional economies.</p>
Environmental Justice		
<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 describing and addressing disproportionately high or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.</p>	<p>Within the spirit and intent of Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, and Low Income Populations, no actions being considered in this EA would disproportionately place any adverse environmental, economic, social, or health effects on minority or low-income populations when compared with the public.</p> <p>The Service is committed to ensuring that all members of the public have equal access to the nation’s fish and wildlife resources, and equal access to information that would enable them to take part meaningfully in activities and policy shaping.</p>	<p>Under the No Action Alternative, there would be no change to the existing refuge hunting program. Supporting the existing program would have no effects on minority or low-income communities.</p>

Key: EA = Environmental Assessment; 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).

For more information on the national cumulative impacts of the Service’s hunting and fishing program on the Refuge System, see the 2020–2021 cumulative impacts report.

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
Hunting and Fishing	
<p>Both coyote and furbearer harvest have decreased dramatically over the past decades. One factor may be the significant decline in fur prices over the past 40+ years. Furbearer populations have risen dramatically, in part because of decreased harvest.</p> <p>Between 1955 and 2015, hunter participation among Kansas residents declined by half, from 10 percent down to 5 percent. During that same time-frame, Kansas experienced an increase in hunters from other states.</p> <p>The survey trend from 2017–2018 for the harvest, participation, and activity levels for hunters in Kansas during the 2017–2018 harvest season is shown in Table 7.</p>	<p>The refuge conducts its hunting program in coordination with state regulations and in consultation with state wildlife professionals. In many cases, refuge regulations are more restrictive than state regulations.</p> <p>Under the proposed action, the Service would allow crow hunting, and furbearer and coyote hunting during daylight hours. The proposed action would be more restrictive than state regulations for each hunt. For this reason, as well as the 2,570-acre no hunting zone (closed unit), the proposed hunts would have a negligible cumulative effect on local or statewide wildlife populations.</p> <p>Furbearers</p> <p>Considering the low numbers of occurrence of many furbearer species and refuge hunting limitations (for example, area and hours), the potential take is likely negligible in proportion to regional or state numbers.</p> <p>Coyote</p> <p>Based on an estimated average of 0.47 bag per day over a 181-day refuge season, potential harvest is about 85 coyotes. In reality, it is not expected that coyote hunting would or could occur every day of the season. Also, considering the refuge hunting limitations (for example, no use of vehicles or lights, no dogs, or the hours), we expect that the actual take would be much less.</p> <p>Migratory Birds</p> <p>Crow is the only new migratory bird species proposed to be hunted under the Proposed Action Alternative. American crow are widespread and long-term population trends continue to increase nationally and worldwide (Verbeek and Caffrey 2002; https://birdsna.org/Species-Account/bna/species/amecro/introduction). Harvest of crow on the refuge would be negligible in context of cumulative impacts to the population at regional and larger landscape scales.</p>

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
(Hunting and Fishing continued)	<p>Estimated hunters = 5.00</p> <p>Estimated season days/hunter = 4.00</p> <p>Estimated season bag/hunter = 6.50</p> <p>Estimated average bag/day = 2.10</p>
Other Wildlife-Dependent Recreation	
<p>Hunters comprise a majority of the public use on the refuge. The refuge does keep trails for hiking, nature observation, photography, and nature interpretation. Hunting is prohibited in the 2,750-acre Closed Unit. Significant acreage exists for other wildlife-dependent recreation.</p>	<p>The proposed alternative would not interfere with other wildlife-dependent recreation. Similarly, other wildlife-dependent recreation would not preclude the proposed action. For example, hunting and birding currently coexist in the same areas of the refuge. Yet, if nonhunters want to recreate in areas without hunting, there are many acres for those activities.</p> <p>The net cumulative effect of the proposed action would likely be positive, because the refuge has received numerous requests for the proposed hunts, and this would not adversely affect other recreation.</p>
Development and Population Increase	
<p>Land use has remained relatively stable since the refuge was established. The human population has not increased enough to promote development and habitat conversion.</p>	<p>Since 1980, the population of Linn County, Kansas, has decreased by approximately 1,500 people (from 9,750 to 8,200). The city of Pleasanton, Kansas, where the refuge is located, has a stable population of approximately 1,200 people. Over the past 20 years, development has been minimal. In the past two years, a 60-turbine wind project began construction 20 miles southwest of the refuge. This had been met with some opposition in Linn County. Refuge staff has not observed changes to wildlife populations as a result.</p> <p>Development should remain stable and population may continue to decrease. The effects on the proposed action likely would be negligible.</p>
Agricultural Land Uses	
<p>Tillable agriculture and pastures for cattle dominate the land use in the area surrounding the refuge. Over the past two decades, there has been a slight increase in tillable acres as Conservation Reserve Program acres decrease and some private land pasture are converted to row crops.</p>	<p>Over the same time period, on refuge land, the Service has restored habitats, thus reducing cropland acreage from 900 acres to zero acres today. The refuge staff has not noticed a decrease in deer densities over the past two decades. Furbearer and coyote populations have increased, but reasons for that extend beyond land conversion. Refuge staff anticipates relative stability in agricultural land use. Therefore, cumulative impacts would be minor.</p>

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
Use of Ammunition and Tackle	
<p>The Service prohibits the use of lead shot on the refuge. Lead would not be allowed for crow hunting but would be allowed in muzzleloaders and shotguns under the proposed alternative.</p>	<p>Lead slugs in shotguns, and lead balls in muzzleloaders, would be permitted under refuge regulations. Lead buckshot would not be allowed for furbearer and coyote hunting.</p> <p>Refuge staff anticipates relatively light furbearer hunting pressure, and no use of lead in crow hunting. Therefore, the total accumulation of lead on the refuge landscape would likely be negligible.</p>
Climate Change	
<p>Climate change refers to the increasing changes in the measures of climate over a long period of time—including precipitation, temperature, and wind patterns (USGS 2019). Although climate change is a naturally occurring phenomenon and temperature and precipitation changes are anticipated, there are many unknowns. Consequently, we do not fully understand the potential effects that climate change may have on terrestrial and aquatic habitats and the associated wildlife species.</p> <p>Based on the National Oceanic and Atmospheric Administration’s summary of potential climate change effects on Kansas (Frankson et al. 2017; https://statesummaries.ncics.org/chapter/ks/), the prediction is for future warmer winter and spring temperatures relative to summer and fall. The number of cold (minimum temperature below 0 degrees Fahrenheit) nights would decrease. Annual precipitation, although uncertain, is predicted to be less in summer and more in winter. The intensity of droughts is expected to increase.</p> <p>It is reported that temporal shifts are occurring in species migration patterns in response to climate change. Of relevance to this environmental assessment and hunt plan is reports of temporal shifts in migration of the whooping cranes (Jorgensen and Bomberger Brown 2017).</p> <p>Over the last 20 years there have been changes to farming practices and crop rotations, some of those attributable to weather patterns.</p>	<p>Using available and emerging science, the Service would continue to assess predictions of these complex effects and use an adaptive management approach to implement this action to ensure that it would not add to the effects of climate change on the environment. Hunting programs and mitigation measures would adapt to changing conditions to continue to conserve natural resources and balance compatible recreational uses.</p>

Other Past, Present, and Reasonably Foreseeable Activity Impacting Affected Environment	Descriptions of Anticipated Cumulative Impacts
Although Kansas still leads the nation in hard red winter wheat production, local farmers have significantly reduced their acreage of this crop. Some cite the increased rain and disease problems with winter wheat. This leaves corn and soybeans as the primary crops.	

Table 7. Harvest, Participation, and Activity Levels for Hunters in Kansas during the 2017–2018 Furbearer Harvest Survey.

Species	Survey Respondents Who Pursued (n)	Estimated Harvest	% of Hunters Who Pursued	Harvest/100 Days	Maximum Harvest	Ave Harvest/Hunter
Badger	35	91	5	13.8	2	0.66
Bobcat	310	728	42	10.1	7	0.6
Coyote	637	17,537	86	48.7	100	6.99
Red Fox	44	122	6	10.3	20	0.7
Gray Fox	19	4	3	0.2	1	0.05
Swift Fox	11	4	1	1.5	1	0.09
Opossum	55	980	7	32.4	40	4.49
Raccoon	218	10,378	29	109.8	100	12.09
Skunk	22	153	3	60.6	6	1.77

Source: KDWPT 2018c

Mitigation Measures and Conditions

To mitigate potential conflicts between raccoon hunters’ dogs and the surrounding private landowners, the Service would prohibit the use of dogs and night hunting for furbearers. On national wildlife refuges, no unconfined domestic animals (dogs, hogs, cats, horses, sheep, or cattle) shall be permitted to enter or roam at large (CFR S26.21[b]). Therefore, furbearer hunting would be limited to daylight hours, without dogs.

To provide for safety of neighbors, centerfire rifles and pistols are prohibited on the refuge.

3.4 Monitoring

The State of Kansas conducts and uses surveys that are used to facilitate decision-making related to hunting and fishing activities (www.ksoutdoors.com/Services/Research-Publications/Wildlife-Research-Surveys). The refuge would heavily rely on the same information, such as what was used in this proposed EA and hunting and fishing plan. Local or refuge-specific information would be used to supplement statewide surveys or reports.

Service law enforcement officers would offer the best source of monitoring for both the wildlife populations and also the hunting impact.

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

This alternative helps meet the purpose and needs of the Service as described above, because it provides additional wildlife-dependent recreation opportunities on the refuge. This hunting and fishing plan also would bring the refuge into alignment with the KDWPT regulations and other national wildlife refuges in Kansas. Furthermore, the coyote hunting proposal would provide some consistency of regulations with the adjacent state wildlife area. Simplifying regulations could assist with reducing the downward trend in hunters and anglers by providing for the recruitment, retention, and reactivation of sportsmen and women.

The proposed alternative would create hunting opportunity, yet not likely enough take to adversely affect populations of the hunted species. Vegetation change would be minimal. There would be no impact on threatened and endangered species. Cultural resources would not be affected. The proposed hunts would require minimal additional administration and law enforcement. Visitor use would increase and thus positively affect the local economy.

The Service has determined that the proposed action would be compatible with the purposes of refuge and the mission of the Refuge System (see the final compatibility determination, which is in Appendix B).

Alternative B – No Action Alternative

The visiting public would continue to be frustrated by a lack of furbearer and coyote hunting options at the refuge. Deer hunters likely would continue to express concern over the abundance of coyotes and predators they see while hunting from a deer stand.

3.6 List of Sources, Agencies, and Persons Consulted

- KDWPT
- Barbara Boyle, Refuge Supervisor, USFWS, DOI Region 5
- Aaron Mize, Hunt and Fish Coordinator, USFWS, DOI Regions 5 and 7
- Bernardo Garza, Hunt and Fish Coordinator, USFWS, DOI Regions 5 and 7
- Craig Mowry, Project Leader, USFWS, Kansas NNWR Complex

The Service Ecological Services program Kansas field supervisor was contacted via phone and follow-up email about the Kansas NWR Complex hunting plans (for Flint Hills, Marais des Cygnes, and Quivira NWRs) on October 31, 2019. A request was made by the national wildlife refuges for Ecological Services to review the list of species threatened, endangered, proposed, and under review as part of the Environmental Assessment Section 7 consultation requirement associated with the hunting plans; see Appendix C.

3.7 List of Preparers

Name	Position	Work Unit
Patrick Martin	Refuge Manager	Marais des Cygnes National Wildlife Refuge

3.8 State Coordination

Representatives of the Kansas NWR Complex (Flint Hills, Marais des Cygnes, and Quivira NWRs) met with the Secretary of the KDWPT and a KDWPT wildlife research supervisor migratory bird specialist about potential future hunting opportunities on the refuges on October 30, 2019, in Hartford, Kansas. The state shared organization and public interests and responded to proposed hunting opportunities at the meeting and in follow-up verbal and written communications. These discussions helped adjust our plan to align, where possible, with state management goals. Overall, the state was supportive of the Service’s proposals of expanded hunting opportunities and both agencies confirmed the continuance of a strong partnership. The refuge received a letter of concurrence from the state director on November 18, 2019.

The refuge and KDWPT will continue to work together to ensure safe and enjoyable recreational hunting opportunities. Law enforcement officers from both the Service and KDWPT work together to patrol the refuge, safeguarding hunters, visitors, and both game and nongame species.

3.9 Tribal Consultation

The Service mailed an invitation for comments to all tribes potentially affected by initiating an EA to expand hunting opportunities at the refuge. The Service extended an invitation to engage in government-to-government consultation in accordance with Executive Order 13175.

3.10 Public Outreach

On April 1, 2020, the Service made the draft EA, hunting and fishing plan, and compatibility determination available to the public for a 30-day public review and comment period. The Service received comments from six individuals and two organizations. Two commenters expressed support for expanding hunting opportunities to include furbearers and coyote on Marais des Cygnes NWR. Two commenters expressed opposition to expanding hunting on Marais des Cygnes NWR. We discuss the comments we received below by topic.

Comment (1): Many commenters expressed general opposition to any hunting or fishing in the Refuge System. In many cases, commenters stated that hunting was antithetical to the purposes of a “refuge,” which, in their opinion, should serve as an inviolate sanctuary for all wildlife. Some of these commenters generically opposed expanded or new hunting or fishing opportunities at specific stations.

Response: The Service prioritizes facilitating wildlife-dependent recreational opportunities, including hunting and fishing, on Service land in compliance with applicable Service law and policy. For refuges, the NWRSA, as amended, stipulates that hunting (along with fishing, wildlife observation and photography, and environmental education and interpretation), if found to be compatible, are a legitimate and priority general public use of a refuge and should be facilitated (16 U.S. Code 668dd[a][3][d]). Therefore, we only allow hunting of resident wildlife on refuges if such activity has been determined compatible with the established purpose(s) of the

refuge and the mission of the Refuge System as required by the NWRSA. For hatcheries, we allow hunting and fishing when such activity is determined not to be detrimental to the propagation and distribution of fish or other aquatic wildlife (50 CFR 71.1). For all 106 stations opening or expanding hunting or fishing in this rule, we determined that the proposed actions were compatible or would not have detrimental impacts.

Each refuge manager makes a decision regarding hunting and fishing opportunities only after rigorous examination of the available information, consultation and coordination with States and tribes, and compliance with NEPA (42 U.S. Code 4321 et seq.); Section 7 of the Endangered Species Act of 1973, as amended (16 U.S. Code 1531 et seq.); and other applicable laws and regulations. The many steps taken before a refuge opens or expands a hunting or fishing opportunity on the refuge ensure that the Service does not allow any opportunity that would compromise the purpose of the station or the mission of the agency.

Hunting of resident wildlife on refuges generally occurs consistent with state regulations, including seasons and bag limits. Refuge-specific hunting regulations can be more restrictive (but not more liberal) than state regulations and often are more restrictive in order to help meet specific refuge objectives. These objectives include resident wildlife population and habitat objectives, minimizing disturbance impacts on wildlife, maintaining high-quality opportunities for hunting and other wildlife-dependent recreation, eliminating or minimizing conflicts with other public uses or refuge management activities, and protecting public safety.

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, again, the NWRSA stipulates that hunting, if found compatible, is a legitimate and priority general public use of a refuge. Furthermore, we manage refuges to support healthy wildlife populations that in many cases produce harvestable surpluses that are a renewable resource. As practiced on refuges, hunting and fishing do not pose a threat to wildlife populations. It is important to note that taking certain individuals through hunting does not necessarily reduce a population overall, as hunting can simply replace other types of mortality. In some cases, however, we use hunting as a management tool with the explicit goal of reducing a population; this is often the case with exotic and/or invasive species that threaten ecosystem stability. Therefore, facilitating hunting opportunities is an important aspect of the Service’s roles and responsibilities as outlined in the legislation establishing the Refuge System, and the Service will continue to facilitate these opportunities where compatible with the purpose of the specific refuge and the mission of the Refuge System.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (2): Several commenters pointed out there are hunting opportunities on other public lands, such as U.S. Forest Service, Bureau of Land Management, and State Areas; therefore, the proposed additional hunting opportunities on refuges in Kansas is not necessary.

Response: Facilitating hunting opportunities is an important aspect of the Service’s roles and responsibilities as outlined in the legislation establishing the Refuge System, and the Service will continue to facilitate these opportunities where compatible with the purpose of the specific refuge and the mission of the Refuge System.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (3): We received several comments that other forms of recreation are important to the economy in addition to hunting, and to expand hunting opportunities above other public uses is unfair to other refuge 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. There are several other compatible public uses enjoyed by the public on Marais des Cygnes NWR, and providing an expanded hunting opportunity is not expected to affect other public users or create conflicts.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (4): Several commenters felt that predators (coyotes, bobcats) should not be hunted on refuges due to their biological importance in refuge ecosystems, and that the cumulative impacts of hunting these species were not thoroughly analyzed by the Service. Commenters stated bobcat density estimates vary and are poorly understood, and that bobcats are limited by available prey, competition, and predation, and are susceptible to disease. For these reasons, the commenters felt that “trophy hunting” of these species is inappropriate. They also felt that hunting of these species is unethical, and the common methods of take for these species, including baiting, hounding, and trapping, are unsportsmanlike.

Response: Refuge managers consider hunting individual species on a case-by-case basis. As with all species, a refuge manager makes a decision about managing bobcat/coyote/fox populations, including allowing predator species to be hunted, only after careful examination to ensure the action would comply with relevant laws, policies, and directives. The NWRSA, as amended, directs the Service to manage refuges for “biological integrity, diversity, and environmental health.” Predator species play a critical role in the integrity, diversity, and overall health of ecosystems, so management actions concerning all species must be considered on a refuge-by-refuge basis. We considered the impacts of hunting on predator populations through individual EAs for each of the proposed hunting openings and expansions at each refuge.

Each individual EA looks at the cumulative impact of the openings of predator hunting on a refuge at the local level to ensure that these opportunities do not add significantly to the cumulative impacts of other past, present, or foreseeable future actions, including other hunting in the local or regional area, on these species. None of the individual EAs found more than minor impacts on these species. We also consider the cumulative impacts of all proposed hunts in the 2020–2021 cumulative impacts report accompanying the proposed rule.

To clarify, our determination of the rule’s impact on furbearers, like many other resident wildlife species in the rule, is not based on bag limits, but rather on the limited number of hunters that we expect to pursue these opportunities as a result of the rule. Hunting for furbearers is only open on refuges during the day, while most successful hunting for some species of furbearers is conducted at night. Trapping, not hunting, is the method of take that most hunters of furbearers prefer. Neither hounding nor trapping are valid methods of take as part of hunting programs in

the Refuge System. In other cases, the terrain and habitat of the refuge or hatchery are not conducive to these types of hunting opportunities. Therefore, it was our determination that the proposed rule, while bringing greater alignment with state hunting regulations, will not result in significant impacts on predator or furbearer species.

The Service does not attempt to define or authorize “trophy hunting” in any of our laws, regulations, or policies concerning hunting. We follow state hunting and fishing regulations, except for where we are more restrictive on individual refuges, including state regulations concerning responsible hunting, or prohibitions on wanton waste (defined as “to intentionally waste something negligently or inappropriately”). As stated in our response to *Comment (1)*, we only allow hunting on refuges and hatcheries when we have determined that the opportunity is sustainable and compatible.

Many coyotes and furbearers are only taken incidentally during other refuge hunts. Baiting is prohibited on all refuges outside Alaska under 50 CFR 32.2(h), unless specifically authorized under station-specific regulations, and it is uncommon for baiting to be authorized. The use of dogs for hounding is prohibited on refuges by 50 CFR 26.21(b) unless authorized by refuge-specific regulations, and many refuges only authorize the use of dogs for retrieval of migratory birds, upland game birds, and small game. Most refuges that allow dogs require the dogs to be under the immediate control of the hunter at all times, or leashed unless actively retrieving an animal.

Under the Refuge Improvement Act of 1997 (Public Law 105-57), trapping is not considered a priority wildlife dependent recreational use of the Refuge System. Trapping programs on refuges are generally implemented to accomplish wildlife management objectives. These objectives vary between refuges and are often an essential tool in meeting refuge management objectives (for example, trapping of predators may be necessary to accomplish waterfowl production objectives or to protect an endangered species).

The NWRSA, as amended, also mandates that “[r]egulations permitting hunting or fishing of fish and resident wildlife within the Refuge System shall be, to the extent practicable, consistent with state fish and wildlife laws, regulations, and management plans” (16 U.S. Code 668dd[m]). Therefore, all the opportunities for hunting predators in this rule that are intended to bring greater consistency with state fish and wildlife laws, regulations, and management plans, are part of realizing the Service’s mission. Moreover, these, as with all predator hunting determinations and all hunting and fishing determinations, were only made after careful consideration by the refuge manager to ensure that such actions would not threaten the integrity, diversity, and overall health of the ecosystem and were compatible with both the purpose of the refuge and the mission of the Refuge System. Finally, both the NEPA process and the rulemaking process provide the opportunity for the public to provide comments and any additional information on impacts of our actions. We considered the additional information provided from the public on this issue during the public comment period and determined that they did not affect our initial determinations that these small and minor opportunities for hunting predators had no more than minor impacts on the population health of these species or other wildlife at the local, regional, or national level.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (5): One commenter felt while the EA provides some discussion of population trends for raccoons and coyotes, it provides no estimates of population numbers or trends of other

“furbearer” species—or any other analysis of these species’ ability to withstand additional hunting pressure. The Service has a legal duty 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 Section 668dd[a][1], [4]). The Service cannot act consistent with that duty when authorizing the exploitation of ecologically important predator species like bobcats, especially given the myriad other threats they face and the lack of data on their current populations.

The commenter also felt the draft EA’s analysis of impacts on furbearers is deficient because it provides no analysis of how new hunting “opportunities” on the refuge could affect the other species to be targeted. It also fails to consider an alternative that would not expand hunting to ecologically important predators, such as bobcats, and it provides no cumulative impacts of furbearer hunting on the refuge when combined with hunting elsewhere in the state or country.

Response: We considered the impacts of hunting on predator populations through the individual EA for the proposed hunting opening. As mentioned in the Marais des Cygnes NWR EA, other furbearers (opossum, striped skunk, badger, and fox) all show increasing populations across the state (data from the KDWPT Roadside Survey, 2015). Those populations should support the level of hunting in the proposed changes to the hunting and fishing plan. We also considered the cumulative impacts of all proposed hunts in the 2020–2021 cumulative impacts report accompanying the proposed rule.

A majority of furbearer harvest statewide occurs not through hunting, but rather trapping, which is not being proposed within this plan. Furthermore, impacts on furbearers and coyote on the refuge would be minimized by method of take (no centerfire rifles or pistols) and timing of the hunts (limited to daylight hours). Finally, one-third of the refuge (2,750 acres) would remain closed to hunting.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (6): One commenter was of the opinion that skunks and opossums are not desirable game species, and are largely nocturnal, making hunting of these species an unlikely means of control. The commenter also felt muskrat, mink, fox, badger, and bobcats either are not common on the refuge or are nocturnal and not likely to be desirable quarry for hunters, or, if hunted for, not found. The commenter stated it appears a change in regulation is not required to control burgeoning populations or to fulfill an urgent popular demand for an open season on these species.

Response: The hunting and fishing plan proposes to maintain existing hunting opportunities and provide new hunting opportunities on Marais des Cygnes NWR. The hunting program generally will follow State of Kansas regulations with respect to the target species, seasons, bag limits, and method of take. In certain instances, we may deviate from those regulations to meet refuge wildlife population, public use, and public safety goals. The intent of this proposal is to provide increased hunter opportunity, not necessarily to “control” wildlife populations.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (7): One commenter objected on procedural grounds, and requested all comments be posted online.

Response: Comments submitted through the Federal Register regulatory process are available at www.regulations.gov. While not required by NEPA, it is our policy to summarize all comments received through the individual refuge NEPA process in the final EA.

We did not make any changes to the hunting and fishing plan or EA as a result of this comment.

Comment (8): One commenter asserted that we should prepare an environmental impact statement (EIS) before proposing to expand hunting or fishing opportunities on the refuge. According to the commenter, the proposed hunting openings and expansions are significant enough to warrant an EIS, and that the Service did not adequately analyze the cumulative impacts across the country on all huntable populations with the cumulative impacts report.

Response: The Service disagrees with the assertion that we should prepare an EIS before proposing expanded hunting and fishing opportunities on the refuge. The Service's NEPA-related analysis of the impacts of the proposed openings and expansions demonstrated that the proposal would not have significant impacts at the local, regional, or national level, and the commenter has provided no additional information that would change our analysis. 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 other users; and conducting law enforcement activities.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

Comment (9): We received one comment with concern that the proposed hunting opportunities on the refuge would create an increased need for law enforcement capacity and have a detrimental impact on public safety, wildlife, and other Service resources.

Response: In order to open or expand hunting or sport fishing on a refuge, we must find the activity compatible. To find an activity compatible, the activity must not "materially interfere or detract from" public safety, wildlife resources, or the purposes of the refuge. We have determined that the proposed action would not have detrimental impacts and found the actions to be compatible.

Service policy (603 FW 2.12[7]) requires refuge managers to determine that adequate resources (including personnel, which would include 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/or 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. We have considered the factors involved in this opening and find we have adequate law enforcement coverage for this use.

We did not make any change to the hunting and fishing plan or EA based on this comment.

Comment (10): One commenter expressed concern that the draft plan would allow use of lead in rimfire rifles, muzzleloaders (single projectile), and shotguns (as slugs only). Because of

ecological risks of lead ammunition, the commenter requested that any expansion of hunting require the use of nontoxic ammunition only. The commenter stated science demonstrates harm that lead poisoning causes eagles and other wildlife that live on this refuge, and provided a link (www.diversity.box.com/s/631kfzz46uprpu67sfk31on118ixnj4f) to supporting documentation, requesting that these studies be included in the official record for this project. The commenter also felt the draft EA acknowledged potential impacts from lead poisoning but failed to take the “hard look” required under NEPA. Furthermore, the EA should consider an alternative that would require use of nontoxic ammunition for all hunting on the refuge.

Response: The Service shares commenter’s concerns regarding the bioavailability of lead in the environment. See, for example, 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.

Historically, the principal cause of lead poisoning in waterfowl was the collection of high densities of lead shot in wetland sediments associated with migratory bird hunting activities (Kendall et al. 1996). In 1991, as a result of high bird mortality, the Service instituted a nationwide ban on the use of lead shot for hunting waterfowl and coots (50 CFR 32.2[k]). The Service requires any new shot types for waterfowl and coot hunting to undergo rigorous testing in a three-tier approval process that involves an ecological risk assessment and an evaluation of the candidate shot’s physical and chemical characteristics, short- and long-term impacts on reproduction in waterbirds, and potential toxic impacts on invertebrates (50 CFR 20.134). Because of this rigorous testing, the shot toxicity issue of the past is now substantially less of an ecological concern.

However, there remains a concern about the bioavailability of spent lead ammunition (bullets) and sinkers on the environment, endangered and threatened species, birds, mammals, and humans or other fish and wildlife susceptible to biomagnification. The impacts of lead on human health and safety have been a focus of several scientific studies. We share commenter’s concerns about the adverse impacts of lead. We have reviewed the literature provided during the public comment period and have updated our station-specific analyses, as well as the national cumulative impact report, as appropriate.

Although there is not a Service-wide ban on lead ammunition for non-migratory bird hunting activities or lead sport fishing tackle, the Service has taken specific steps to limit the use of lead in hunting and fishing activities on refuges and hatcheries. The Service continues to educate hunters and anglers on the impacts of lead on the environment, and particularly on human health and safety concerns of ingesting animals harvested with lead ammunition. We always encourage hunters and fishers to voluntarily use nontoxic ammunition and tackle for all harvest activities. Lead alternatives to both ammunition and tackle are becoming more widely available and used by hunters and anglers; however, they remain more expensive.

The Service believes it is important to encourage refuge–state partnerships to reach decisions on lead usage. We continue to research this issue and engage with states and other partners to promote the use of non-lead ammunition and tackle. We share a strong partnership with the states in managing wildlife, and, therefore, we are proceeding with the phase-out of toxic ammunition in a coordinated manner with each respective state wildlife agency. For example, in

California the use of lead ammunition is prohibited statewide including on all Service lands, largely in response to the adverse impacts of lead on the California condor.

At those stations where the Service is continuing to allow lead ammunition and tackle in order to be consistent with the states, the number of new hunters or anglers expected to be using lead bullets or lead tackle as a result of the new or expanded opportunities are expected to be very low, so the resulting addition of lead into the environment is negligible or minor. Where lead ammunition or tackle is still allowed (although discouraged) on Service lands, when compared to the lead in the environment as a result of other fishing, hunting, or other activities in the local, regional, and national area, the addition of lead and the associated impacts on the environment are negligible.

We disagree with the assertion that any use of lead shot in connection with opening and expanding hunting and fishing on the refuge in this rulemaking will harm endangered or threatened species. The refuge carefully evaluated possible impacts on endangered and threatened species as part of the NEPA process. As discussed above, on refuges where lead ammunition or tackle is allowed, we found that the low number of hunters and anglers using lead ammunition or tackle would result in only a negligible increase of lead in the environment, when compared to the lead ammunition and tackle being used in the surrounding areas.

We did not make any changes to the hunting and fishing plan or EA as a result of these comments.

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**" in Appendix D.
- 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: Craig Mowry, Project Leader, Kansas National Wildlife Refuge Complex

Reviewer Signature: _____ Date: _____

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

3.12 References

- Chronert, J.M.; Jenks, J.A.; Roddy, D.E.; Wild, M.A.; Powers, J.G. 2006. Effects of sarcoptic mange on coyotes at Wind Cave National Park. *The Journal of Wildlife Management*. 71(6):1987–1992.
- Cooper, S.M.; Jhala, S.; Rollins, D.; Feagin, R.A. 2015. Nocturnal movements and habitat selection of mesopredators encountering bobwhite nests. *Wildlife Society Bulletin*. 39(1):138–146; 2015; DOI: 10.1002/wsb.499.
- Fischer, J.R. 1995. Human health concerns in the practice of wildlife damage management. *Great Plains Wildlife Damage Control Workshop Proceedings*. Paper 433.
<www.digitalcommons.unl.edu/gpwdcwp/433>
- Gehrt, S.D.; Prange, S. 2007. Interference competition between coyotes and raccoons: a test of the mesopredator release hypothesis. *Behavioral Ecology*. 18(1):204–214.
doi:10.1093/beheco/arl075.
- Mensik, J.G.; Paveglio, F.L. 2004. Biological integrity, diversity, and environmental health policy and the attainment of refuge purposes: a Sacramento National Wildlife Refuge case study. *Natural Resources Journal*. 44:1162–83.
- Riley, S.P.D.; Hadidian, J.; Manski, D.A. 1998. Population density, survival, and rabies in raccoons in an urban national park. *Canadian Journal of Zoology*. 76:1153–1164.
- Rollins, D.; Carroll, J.P. 2001. Impacts of predation on Northern bobwhite and scaled quail. *Wildlife Society Bulletin* 29(1):39–51.
- Staller, E.L.; Palmer, W.E.; Carroll, J.P.; Thornton, R.P.; Sisson, D.C. 2005. Identifying predators at northern bobwhite nests. *The Journal of Wildlife Management*. 69(1):124–132.
<www.jstor.org/stable/3803591>
- [USDOI] U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.
- [USFWS] U.S. Fish and Wildlife Service. 1998. Marais des Cygnes National Wildlife Refuge Comprehensive Conservation Plan. Region 6. 70 p.

APPENDIX A OTHER APPLICABLE STATUTES, EXECUTIVE ORDERS, AND REGULATIONS

Statutes, Executive Orders, and Regulations
Cultural Resources
<p>American Indian Religious Freedom Act, as amended, 42 U.S. Code 1996–1996a; 43 CFR Part 7</p> <p>Antiquities Act of 1906, 16 U.S. Code 431–433; 43 CFR Part 3</p> <p>Archaeological Resources Protection Act of 1979, 16 U.S. Code 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. Code 470–470x-6; 36 CFR Parts 60, 63, 78, 79, 800, 801, and 810</p> <p>Paleontological Resources Protection Act, 16 U.S. Code 470aaa–470aaa-11</p> <p>Native American Graves Protection and Repatriation Act, 25 U.S. Code 3001–3013; 43 CFR Part 10</p> <p>Executive Order 11593 – Protection and Enhancement of the Cultural Environment, 36 Federal Register 8921 (1971)</p> <p>Executive Order 13007 – Indian Sacred Sites, 61 Federal Register 26771 (1996)</p>
Fish and Wildlife
<p>Bald and Golden Eagle Protection Act, as amended, 16 U.S. Code 668–668c, 50 CFR 22</p> <p>Endangered Species Act of 1973, as amended, 16 U.S. Code 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. Code 742a–m</p> <p>Lacey Act, as amended, 16 U.S. Code 3371 et seq.; 15 CFR Parts 10, 11, 12, 14, 300, and 904</p> <p>Migratory Bird Treaty Act, as amended, 16 U.S. Code 703–712; 50 CFR Parts 10, 12, 20, and 21</p> <p>Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, 66 Federal Register 3853 (2001)</p>
Natural Resources
<p>Clean Air Act, as amended, 42 U.S. Code 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. Code 1131 et seq.</p> <p>Wild and Scenic Rivers Act, 16 U.S. Code 1271 et seq.</p> <p>Executive Order 13112 – Invasive Species, 64 Federal Register 6183 (1999)</p>
Water Resources
<p>Coastal Zone Management Act of 1972, 16 U.S. Code 1451 et seq.; 15 CFR Parts 923, 930, 933</p> <p>Federal Water Pollution Control Act of 1972 (commonly referred to as Clean Water Act), 33 U.S. Code 1251 et seq.; 33 CFR Parts 320–330; 40 CFR Parts 110, 112, 116, 117, 230-232, 323, and 328</p> <p>Rivers and Harbors Act of 1899, as amended, 33 U.S. Code 401 et seq.; 33 CFR Parts 114, 115, 116, 321, 322, and 333</p> <p>Safe Drinking Water Act of 1974, 42 U.S. Code 300f et seq.; 40 CFR Parts 141–148</p> <p>Executive Order 11988 – Floodplain Management, 42 Federal Register 26951 (1977)</p> <p>Executive Order 11990 – Protection of Wetlands, 42 Federal Register 26961 (1977)</p>

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

APPENDIX B COMPATIBILITY DETERMINATION

Final Compatibility Determination for Hunting and Fishing on Marais des Cygnes National Wildlife Refuge

Use: Hunting and fishing

Refuge Names: Marais des Cygnes National Wildlife Refuge

Establishing and Acquisition Authorities:

- Emergency Wetlands Resources Act (1986) 16 United States (U.S.) Code Section 3901, and the Fish and Wildlife Act (1956) 16 U.S. Code Section 742a.

Refuge Purpose(s):

Marais des Cygnes National Wildlife Refuge (NWR) was established in 1992 to protect bottomland hardwood habitats along the Marais des Cygnes River in Linn County, Kansas. The Marais des Cygnes Basin, including threatened and endangered species will be preserved in coordination with partners. The refuge will serve as an area for wildlife-dependent environmental education, interpretation, and compatible recreational day use.

National Wildlife Refuge System Mission:

The mission of the National Wildlife Refuge System (Refuge System) is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the U.S. for the benefit of present and future generations of Americans.

Description of Use:

What is the use?

The use includes hunting opportunities in addition to the existing approved hunting and fishing uses. Additional species to be hunted include crow, coyote, and state-defined hunted furbearers (raccoon, opossum, striped skunk, bobcat, fox, mink, badger, muskrat, and weasel).

Where is the use conducted?

The additional hunting uses will occur within the existing open hunt unit (4,995 acres) on Marais des Cygnes NWR. The proposed hunts will not occur in the closed hunt unit (2,570 acres), since it provides sanctuary for migratory birds and to help offset potential disturbance to wildlife.

When will the use be conducted?

All new hunting opportunities will occur within the existing state hunting seasons. Hunting will not be allowed at night. Refuge and shooting hours for coyote and furbearers will be one-half hour before sunrise until sunset. Crow hunting will follow migratory bird hunting hours, one-half hour before sunrise until sunset.

How will the use be conducted?

The use will be conducted according to state, federal, and refuge-specific regulations. The Service limits the hunting area, season, hours, and other aspects of operations and procedures to ensure compatibility of multiple wildlife-dependent uses and with conservation priorities.

Why is this use being proposed?

Hunting is a priority general public use of the Refuge System that is also an important wildlife management tool. The Service recognizes hunting as a healthy, traditional outdoor pastime, deeply rooted in the American heritage. Hunting can instill a unique understanding and appreciation of wildlife, their behavior, and their habitat needs. Hunting programs can promote understanding and appreciation of natural resources and their management on lands and waters in the Refuge System. This interest is congruent with the Department of the Interior Secretarial Order 3356, "Hunting, Fishing, Recreational Shooting, and Wildlife Conservation Opportunities and Coordination with States, Tribes, and Territories."

Availability of Resources:

Although additional hunting opportunities will require more time and monetary resources, implementation can occur under current administrative conditions. Existing programs, such as signs, brochures, and other communications, can be updated with available resources. Maintenance of infrastructure is closely tied to the Service Asset Maintenance Management System. The refuge's base budget will cover the cost of updates. Current law enforcement is sufficient for safety and management related to expanded hunting uses.

Anticipated Impacts of the Use:

This alternative meets the purpose and needs of the Service as described above, but with expanded wildlife-dependent recreation opportunities. There will be an increased number of species allowed to be hunted, as well as associated seasons and methods of take to satisfy different hunting user groups. Observations from the refuge staff indicate that there are sustainable wildlife populations to support the proposed hunts. Hunting will only occur in the open unit, with 2,570 acres remaining as a sanctuary for wildlife. Although the proposed hunts could occur in the trail areas, their impact on nonconsumptive public use should be minimal. There will be a negligible effect on vegetation and threatened and endangered species. Refuge staff anticipates positive response from the hunting public and will periodically assess impacts to allow adjustments in hunting and fishing activities.

Public Review and Comment:

This compatibility determination was prepared concurrently with the environmental assessment and companion hunting and fishing plan for the refuge. Public review and comment were achieved concurrently with the public review and comment period for the draft hunting and fishing plan and environmental assessment. Public review and comment were solicited through public posting of notices at the refuge and on the refuge's website.

Determination (check one below):

- Use is not compatible.
- Use is compatible with the below stipulations.

Stipulations Necessary to Ensure Compatibility:

To ensure compatibility with the Refuge System and refuge goals and objectives, hunting and fishing can only occur under the following conditions:

- Implementation of uses as described in the refuge hunting and fishing plan, and according to applicable state, federal, and refuge-specific regulations.

Justification:

In view of the above and with the stipulations previously described, hunting will not materially interfere with or detract from the Refuge System mission or purposes of the refuge. Hunting is a priority public use of the Refuge System, and providing a hunting and fishing program contributes to achieving one of the refuge goals. Disturbance of wildlife will occur, but the impacts are expected to be temporary and minimal. Hunting is not expected to adversely affect the biological integrity, diversity, and environmental health of the refuge or the Refuge System.

The Service and the State of Kansas consider hunting an acceptable and desirable form of public use and wildlife-dependent recreation. Hunting is considered an educational and recreational opportunity that increases the public's awareness of wise stewardship and management of wildlife resources in the public's trust. Recreational public hunting is a historic, wildlife-dependent use of the Refuge System and is one of the six priority public uses established by Executive Order 12996 (March 25, 1996) and legislatively authorized by the National Wildlife Refuge System Improvement Act of 1997 (Public Law 105-57).

Current staffing levels and funding are adequate to administer the hunting program. Kansas state law further controls hunter activities. Hunting is a legitimate wildlife-management tool that can be used to control wildlife populations. Hunting harvests a small percentage of the renewable resources, which is in accordance with wildlife-management objectives and principles.

Signatures:

Craig Mowry, Project Leader

Date

Review:

Barbara Boyle, Refuge Supervisor

Date

Approval:

Maureen Gallagher, ARD-NWRS

Date

Mandatory 10- or 15-year Re-Evaluation Date: 2035

APPENDIX C SECTION 7 BIOLOGICAL EVALUATION FORM

Section 7 Biological Evaluation Form

Originating Person: Patrick D. Martin Date Submitted: 6/3/2020
Telephone Number: 913-352-8956

- I. **Service Program and Geographic Area or Station Name:** Marais des Cygnes National Wildlife Refuge
- II. **Flexible Funding Program** (e.g. Joint Venture, etc) if applicable: N/A
- III. **Location:** Location of the project including County, State and TSR (township, section & range):
Linn County, Kansas: Township 21 South, Range 25 East
- IV. **Species/Critical Habitat:** List federally endangered, threatened, proposed, and candidate species or designated or proposed critical habitat that may occur within the action area. To obtain species lists: <http://ecos.fws.gov/ipac/>
Northern long-eared bat, *Myotis septentrionalis*
Spectaclecase (mussel), *Cumberlandia monodonta*
Mead's milkweed, *Asclepias meadii*
*There is no designated or proposed critical habitat for any of these species within the area.

Project Description: Describe proposed project or action or, if referencing other documents, prepare an executive summary (attach additional pages as needed):

Under the Proposed Action Alternative, the Service will open hunting for badger, bobcat, fox, mink, muskrat, opossum, raccoon, striped skunk, weasel, and coyote on the 4,995-acre open unit on the refuge in accordance with the refuge's hunting and fishing plan. No trapping is being proposed. Hunting for beaver and otter is not permitted by state regulations and is not proposed in this alternative. Methods of take for furbearers and coyote will include shotgun, muzzleloader, and archery. Dogs, vehicles, or bait may not be used to hunt furbearers or coyotes. Coyotes may not be hunted from a vehicle or a road. Electronic calls will be permitted for coyote and furbearer. Hunting will be permitted during daylight hours (one-half hour before legal sunrise until one-half hour past legal sunset).

VI. Determination of Effects:

(A) Description of Effects: Describe the action(s) that may affect the species and critical habitats listed in item IV. Your rationale for the Section 7 determinations made below (B) should be fully described here.

The proposed changes to hunting regulations do not include any changes to habitat, vegetation structure, or river/stream locations. Furthermore, the additional public use as a result of these new hunts will be negligible and of limited impact to habitats.

(B) Determination: Determine the anticipated effects of the proposed project on species and critical habitats listed in item IV. Check all applicable boxes and list the species (or attach a list) associated with each determination.

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.**

X

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. **Concurrence from ESFO required.**

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.**

Signature **PATRICK MARTIN**
[Supervisor at originating station]

Digitally signed by
PATRICK MARTIN
Date: 2020.06.12
11:26:20 -05'00'

Date _____

Reviewing Ecological Services Office Evaluation (check all that apply):

A. **Concurrence** _____ **Nonconcurrence** _____
Explanation for nonconcurrence:

B. **Formal consultation required** _____
List species or critical habitat unit

C. **Effects are addressed in the Programmatic Consultation on R6's
Recovery Program – no further consultation needed** _____

D. **Conference required** _____
List species or critical habitat unit

Name of Reviewing ES Office _____

Signature

Date

APPENDIX D FINDING OF NO SIGNIFICANT IMPACT

FINDING OF NO SIGNIFICANT IMPACT AND DECISION TO IMPLEMENT THE HUNTING AND FISHING PLAN

MARAIS DES CYGNES NATIONAL WILDLIFE REFUGE

Pleasanton, Kansas

The United States (U.S.) Fish and Wildlife Service (Service) is implementing the Marais des Cygnes National Wildlife Refuge Hunting and Fishing Plan in Kansas. The refuge will expand hunting opportunities to include hunting of badger, bobcat, mink, muskrat, fox, opossum, raccoon, striped skunk, weasel, and coyote on the 4,995-acre open unit on the Marais des Cygnes National Wildlife Refuge (NWR). In addition, the Service proposes to allow crow hunting.

Selected Action

Alternative A – Proposed Action Alternative: The hunting and fishing plan proposes to maintain existing hunting opportunities and provide new hunting opportunities on the 7,565-acre Marais des Cygnes NWR. The hunting program generally will follow State of Kansas regulations with respect to the target species, seasons, bag limits, and method of take. Two-thirds of the refuge (4,995 acres or 66 percent) is open for hunting and other wildlife-dependent recreational uses. The proposed alternative would not open additional acres for hunting, but rather new species (crow, furbearers, and coyote). The closed unit (2,750 acres), historically closed to hunting, would remain as such. In certain instances, we may deviate from those regulations to meet refuge wildlife population, public use, and public safety goals. This plan may use members of the general public to participate in hunts at specific times and locations that are designed to provide unique hunter opportunities. These hunts will be conducted in cooperation with Kansas Department of Wildlife, Parks, and Tourism (KDWPT).

Furbearer and Coyote

The Service proposes to open hunting of badger, bobcat, mink, muskrat, fox, opossum, raccoon, striped skunk, weasel, and coyote on the 4,995-acre open unit on Marais des Cygnes NWR in accordance with the refuge's hunting and fishing plan. No trapping or running is being proposed. Hunting for beaver and otter is not permitted by state regulations and is not proposed in this alternative. Method of take for furbearers would include shotgun, muzzleloader, and archery. Dogs, vehicles, or bait may not be used to hunt furbearers or coyotes. Coyotes may not be hunted from a vehicle or a road. Calling would be permitted for coyote and furbearer in compliance with state regulations. Hunting would be permitted during daylight hours (one-half hour before legal sunrise until legal sunset). Hunting seasons would be consistent with state regulations.

Crow

Under the Proposed Action Alternative, the Service would open hunting for crow on the 4,995-acre open unit. Seasons and bag limits would follow state regulations. Method of take would be limited to shotgun (nontoxic shot only) and archery.

The refuge law enforcement officers and KDWPT wardens will monitor the hunts and conduct license, bag limit, and compliance checks.

This alternative was selected over other alternatives because this alternative offers the best opportunities for public hunting while meeting the Service's mandates under the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, and Secretarial Order 3356. The proposed alternative will result in an estimated increase of 25 hunter use days and minor increase of economic inputs to local communities while minimizing potential direct and indirect impacts on biological resources. This alternative balances the needs of the multiple user groups on the refuge and uses existing roads and infrastructure to the extent possible, thereby minimizing impacts on physical resources.

The Service has determined that the hunting and fishing plan is compatible with the purposes of the Marais des Cygnes NWR and the mission of the National Wildlife Refuge System (Refuge System).

Other Alternatives Considered and Analyzed

Alternative B – No Action Alternative: Under the No Action Alternative, the refuge would continue to prohibit furbearer and coyote hunting, as well as crow hunting. Other hunting seasons would remain in place, as outlined in the Marais des Cygnes NWR Hunting Regulations.

This alternative was not selected because even though it would have the least direct impacts on physical and biological resources, it does not meet the main purpose of the proposed action, which is to expand hunting opportunities on the refuge.

Summary of Effects of the Selected Action

An environmental assessment (EA) was prepared in compliance with the National Environmental Policy Act (NEPA) 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, and 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:

- The selected alternative would result in minor, short-term direct and indirect impacts on resident game species, other wildlife, fish, and their habitats. The Service believes that hunting of these species would not have a significant impact on regional or statewide wildlife and fish populations as the number harvested on Marais des Cygnes NWR would be a small fraction of regional and statewide populations. In addition, overall populations would continue to be monitored by the KDWPT, and future harvests would be adjusted as needed under existing state regulatory processes.

- Administration costs would be negligible. The furbearer, coyote, and crow hunting seasons occur during months of the year when officers would be making other hunter contacts; therefore, additional law enforcement would not be required.
- Local economies receive minor benefits from hunters and anglers purchasing items related to hunting and fishing. The Service is committed to ensuring that all members of the public have equal access to the Nation's fish and wildlife resources, as well as equal access to information that would enable them to take part meaningfully in activities and policy shaping; therefore, minority and low income populations will not be adversely affected.
- The Service is committed to ensuring that all members of the public have equal access to the Nation's fish and wildlife resources, as well as equal access to information that would enable them to take part meaningfully in activities and policy shaping; therefore, minority and low income populations would not be adversely affected.
- The KDWPT is responsible for monitoring populations of resident game and fish and implementing any adjustments to future harvests as needed under the existing state regulations to ensure sustainable populations (www.ksoutdoors.com/). Their action will prevent potential cumulative impacts from occurring due to hunting take, development, and population increase.
- Non-hunted wildlife species occurring on the refuge may be affected by disturbances due to hunting activities. Short-term disturbances may take place at the time of the action when hunting occurs on the refuge. In a single season, non-hunted wildlife may be disturbed multiple times; however, there are enough available habitat resources for them to relocate, both on refuge and on adjacent lands, so there are minimal negative impacts. Long-term impacts of short-term disturbance are not likely to occur, and cumulative impacts would be negligible on non-hunted wildlife.
- The refuge will continue to support substantial populations of non-hunted wildlife under all alternatives. Therefore, at the local level, hunting on the refuge adds minimally to cumulative impacts on non-hunted wildlife, and negligibly relative to statewide and regional populations.
- Climate change may result in both positive and negative cumulative effects on resident game species. The Service will work with KDWPT to adjust the hunting program on the refuge to ensure that it does not contribute further to the cumulative impacts of climate change on resident game species and fish.
- The proposed action may lead to some adverse impacts on nonconsumptive user groups on the refuge during hunting season. The increased hunting opportunities will create additional noise and visual impacts on those users visiting the refuge when hunters are present. However, these impacts to nonconsumptive users will be balanced out by the setting aside other areas for nonconsumptive public use.

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

- Prohibiting the use of centerfire and rimfire firearms to provide for public safety of the surrounding private landowners.

- The refuge is developing a hiking trail near the headquarters. When completed, this will provide recreation for hikers, birdwatchers, and photographers in a non-hunting portion of the refuge.
- The refuge law enforcement officers and KDWPT wardens would monitor the hunts and conduct license, bag limit, and compliance checks.

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

- The proposed action would result in an anticipated 50 furbearers harvested, 20 coyote harvested, and 25 crows harvested. The potential take would likely be negligible in proportion to regional or state numbers. The Service works closely with the state to ensure that additional species harvested on a refuge are within the limits set by the state to ensure healthy populations of the species for present and future generations of Americans.
- The adverse direct and indirect effects of the proposed action on air, water, soil, habitat, wildlife, and aesthetic/visual resources are expected to be minor and short term.
- Managed and limited harvest of furbearers, coyote, and crow has been shown to be consistent with long-term population maintenance and enhancement, and the action is not irreversible.
- 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 program continues to contribute to the biodiversity and ecosystem health of the refuge and these opportunities do not contribute to any cumulative impacts on habitat for wildlife from climate change, population growth and development, or local, state, or regional wildlife management.
- The monitoring and mitigation measures related to this action will ensure that the Service can act swiftly under any worst-case scenario to ensure this action does not contribute to any significant adverse impacts on furbearers, coyote, crow, or other habitat and wildlife on the refuge.
- The action would result in beneficial effects on the human environment, including increased wildlife-dependent recreational opportunities and socioeconomics of the local economy, with only minimal adverse impacts on the human environment as discussed in the EA.
- The action, along with mitigation measures, will ensure that there is low danger to the health and safety of refuge staff, visitors, and the hunters and fishers themselves.
- The effects on the quality of the human environment of the activities are not highly controversial. The Service acknowledges some opposition to aspects of the proposed activities but concludes that this opposition does not rise to the level of significant scientific controversy regarding the impacts of the proposed action.
- The Service notes that those voicing opposition to the Service's proposed alternative do not provide data or evidence to refute the numeric estimates of loss and the related

potential for distributional impacts, which the Service has concluded are not of a magnitude to threaten the wildlife or habitat of the refuge.

- The possible effects of the activities on the quality of the human environment are relatively certain and do not involve unique or unknown risks. Hunting is already occurring on the refuge, and wildlife and habitat on the refuge continue to thrive despite the loss of habitat outside the refuge boundaries.
- The activities do not establish a precedent for actions with future significant effects or represent a decision in principle about a future consideration, because regulations with regard to take in sport hunting seasons are determined annually and all harvest regulations are reviewed, based on new biological information.
- There are no significant cumulative effects identified in the EA. Additional hunting would only slightly add to the cumulative impacts on furbearer, coyote, and crow populations stemming from hunting at the local and regional levels, and would result in minor impacts on furbearers, coyote, and crow on the refuge.
- There are no irreversible or irretrievable resource commitments identified by this assessment, except for a minor consumption of fossil fuels for routine operations.
- The activities would not threaten a violation of federal, state, or local law or requirements imposed for the protection of the environment.
- The activities would not have an adverse effect on historical or cultural resources due to the temporary and superficial use of refuge habitats during hunting activities.
- The action would not affect any threatened or endangered species, or any federally designated critical habitat.
- The action would not affect any federally designated wilderness areas.
- The action is not expected to have any significant adverse effects on wetlands and floodplains, pursuant to Executive Orders 11990 and 11988.

Public Review

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

- KDWPT; Pratt, Kansas
- Kansas State Historic Preservation Office; Topeka, Kansas
- Potentially affected tribes

Refuge staff met with KDWPT on October 30, 2019, to discuss the current hunting program and recommendations for the future. During that meeting, the state shared organization and public interests and responded to proposed hunting opportunities at the meeting and in follow-up verbal and written communications. These discussions helped adjust our plan to align, where possible, with state management goals. The state was supportive of the Service's proposals of expanded hunting opportunities and both agencies confirmed the continuance of a strong partnership. The refuge received a letter of concurrence from the Secretary of KDWPT on November 18, 2019.

The Service consulted with the Kansas State Historic Preservation Office, requesting review and comment concerning the Service's determination of no adverse effect on historic properties with regard to the opening of additional species to hunting on Marais des Cygnes NWR.

The Service mailed an invitation for comments to all tribes potentially affected by initiating an EA to expand hunting opportunities at Marais des Cygnes NWR. The Service extended an invitation to engage in government-to-government consultation in accordance with Executive Order 13175.

On April 1, 2020, the Service released the draft EA for a 30-day public comment period. The Service received eight responses to our request for public comments on the EA. Most of the comments expressed opposition to the proposed action from those concerned about impacts on hunted species and other wildlife on the refuge, and to other wildlife-dependent recreation on the refuge. The Service addressed and clarified some of the concerns raised during the review process (see the Public Outreach Section in the EA).

In addition, on April 9, 2020, the Service published the Draft 2020–2021 Station-Specific Hunting and Sport Fishing Regulation Regulations in the Federal Register. The Service has removed all refuge-specific regulations from 50 Code of Federal Regulations Part 32 that were duplicative of other Service or state regulations, and thus unnecessary. The regulations removed from the refuge-specific regulations are all still enforceable on the refuge under federal and state law. The regulations applicable to the hunting on the refuge have been clarified concerning the use of temporary hunting blinds as a result of the rulemaking this year. The refuge will ensure that refuge's hunting brochure includes all applicable regulations for hunting on the refuge.

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 expanded hunting on Marais des Cygnes 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 amended). As such, an environmental impact statement is not required.

Decision

The Service has decided to open hunting of badger, bobcat, mink, muskrat, fox, opossum, raccoon, striped skunk, weasel, and coyote on the 4,995-acre open unit on Marais des Cygnes NWR. In addition, the Service will allow crow hunting. These actions will be effective at the end of the final national process period for hunting and fishing on Refuge System lands.

This action is compatible with the purpose of the refuge and the mission of the Refuge System (see the final compatibility determination, which is in Appendix B of the EA).

The action is consistent with applicable laws and policies regarding the establishment of hunting on refuges. Refuge-specific regulations promulgated in conjunction with this action are in the process of being finalized. This action will not be implemented until the regulations are finalized.

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

Date