

Executive Summary

Introduction

The U.S. Fish and Wildlife Service (Service) has developed this environmental assessment and draft comprehensive conservation plan (EA/Draft CCP) to guide the long-term management of DeSoto and Boyer Chute National Wildlife Refuges (NWRs, Refuges) located on the border of Nebraska and Iowa 15 miles north of the Omaha–Council Bluffs Metropolitan Area. This EA/Draft CCP has been prepared in accordance with the requirements of both the National Wildlife Refuge System Administration Act of 1966 (as amended) and the National Environmental Policy Act of 1969 (NEPA).

For Boyer Chute NWR, this is the first comprehensive planning effort undertaken to guide future management. For DeSoto NWR, this effort revises the CCP finalized in January of 2001—allowing management to consider changing public values, incorporate new scientific information, and reevaluate the management direction. For both refuges this planning process serves to redirect management in the aftermath of catastrophic flooding that occurred in 2010 and 2011. This plan addresses management challenges and opportunities that have emerged because of these flood events.

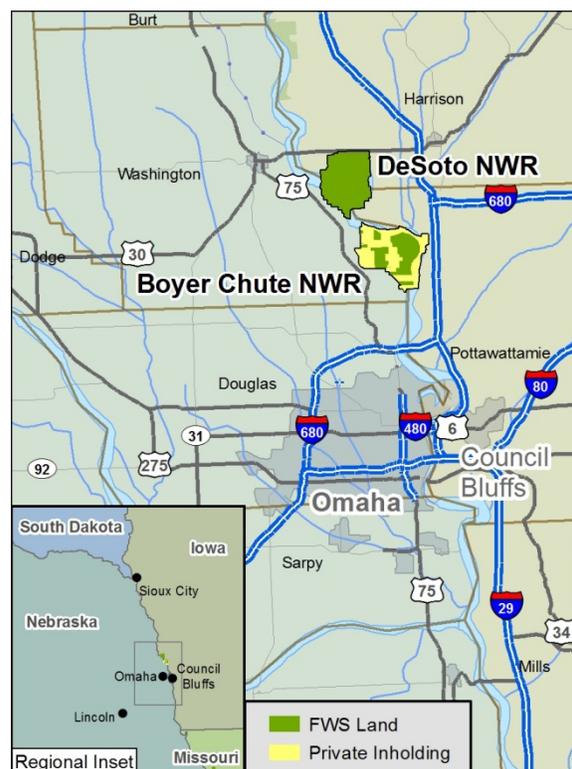
This EA/Draft CCP evaluates and compares four alternatives for managing DeSoto and Boyer Chute Refuges over the next 15 years. The environmental consequences section of the EA/Draft CCP evaluates the potential effects of implementing the proposed management activities and public uses included in these alternatives.

The CCP is designed to ensure that the refuges fulfill their established purposes and play a role in fulfilling the mission of the Service and the National Wildlife Refuge System (Refuge System).

Background

The Missouri River ecosystem is a resource of national importance with a long history of human interaction and ecological change. The lands and waters of the basin host abundant and diverse resident wildlife and provide important stopover sites for migratory birds in the central flyway. Only three refuges straddle the channelized third of the river that flows the 735 miles between Sioux City, Iowa and St. Louis, Missouri. Two of these refuges, DeSoto NWR and Boyer Chute NWR are located side-by-side, 15 miles north of the Omaha–Council Bluffs Metropolitan Area (figure ES-1). These refuges share management, headquartered out of DeSoto NWR, because of their close proximity and the commonality of their habitats, wildlife

Figure ES-1: Location of DeSoto and Boyer Chute Refuges



management, and ecological resources. When fully acquired, these refuges will conserve over 18,000 acres of unique riverine habitats, seasonal wetlands, bottomland forests, and native floodplain grasslands. The refuges are also popular destinations for people due, in part, to the important cultural resources and abundant opportunities for wildlife-dependent recreation they offer to nearby communities and the Greater Omaha–Council Bluffs Metropolitan Area.

DeSoto National Wildlife Refuge was established in 1958 and encompasses 8,365 acres of floodplain habitat on a former oxbow of the Missouri River. In addition to a stretch of the Missouri River channel and a large oxbow lake, the refuge contains riparian forests, grasslands, wetlands, and riverine habitats that host over 250 bird species, 35 mammal species, 30 reptile and amphibian species, and 60 fish species. DeSoto NWR is also the home of the Steamboat Bertrand Museum Collection, one of the premier assemblages of Civil War era artifacts in the United States. In addition to this wildlife observation, hunting, fishing, and a variety of other wildlife-dependent recreation opportunities available to the public attract enough visitors to make DeSoto NWR one of the more heavily visited refuges in the National Wildlife Refuge System.

Boyer Chute NWR was authorized in 1992 in an ongoing effort to recover, restore, and safeguard fish and wildlife habitat along the Missouri River corridor. Approximately 4,040 acres of 10,010 acres authorized for acquisition are currently owned and managed by the Service; the rest remains in private ownership. Similar to DeSoto NWR, the refuge conserves landscape features found only along major rivers systems including backwaters, side channels, and islands as well as a diversity of associated floodplain habitats ranging from wetlands and prairies to riparian shrublands and woodlands.

Planning Process

A year's worth of CCP planning activities occurred for Boyer Chute NWR starting in 2010. However, two successive years of catastrophic flooding on the Missouri River (2010–2011) resulted in the decision to start planning over, and combine the management of DeSoto and Boyer Chute Refuges. This represents the first CCP effort for management of Boyer Chute NWR, and is the second CCP undertaken for DeSoto NWR.

This document often presents “refuge” as a single entity when describing activities associated with comprehensive conservation planning. This CCP, however, is for both DeSoto and Boyer Chute Refuges. Therefore, unless stated otherwise, discussions about “refuge” in this document refer to both stations.

The first stage of planning included team establishment and the development of management issues, a vision statement, and goals. Public involvement, an important component of CCP planning efforts, began in early 2012 with the initiation of the scoping process and publication of our notice of intent to prepare a CCP in the *Federal Register*. To solicit public input, we distributed planning information, conducted public scoping meetings, and held internal and external meetings and workshops. The Service considered the issues and concerns identified by the public, government agencies, non-governmental organizations, tribes, and other partners in refining objectives for the refuges and developing alternatives for how the refuges should be managed over the next 15 years.

During the refuge planning process, all factors of management—including habitats, wildlife, visitor services, facilities, operations, cultural resources, and other relevant issues—are

discussed and evaluated by Service employees, partners, stakeholders, and the public. A range of alternative management options are then clearly defined and presented to partners, stakeholders, and the public to identify and refine the most suitable or “proposed” management plan for the refuge. This document describes the results of the planning process and the details of the alternatives. In this document, the broad goals of the alternatives are defined, and measurable objectives are identified to support each goal. Potential implementation strategies are then offered as available methods to meet these goals and objectives within the 15-year timeframe. Additional information associated with the management objectives including rationale statements, strategies, and related tables and figures are located in appendix A.



Refuge Goals

Three shared goals were identified by DeSoto and Boyer Chute Refuges:

Goal 1: Habitat

Provide quality native grasslands, floodplain forests, wetlands, sandbar, and riverine habitats through land conservation, restoration, and management.

Goal 2: Wildlife

Protect, maintain, and enhance a diversity of resident, migratory, and endangered species native to the Missouri River floodplain.

Goal 3: People

Refuge visitors will understand and appreciate management of the refuges and the National Wildlife Refuge System through participation in diverse wildlife-dependent recreation, environmental education, and outreach opportunities, and will understand the progression of change in the Missouri River Valley as reflected through the Steamboat Bertrand Museum Collection and its history.

Planning Issues

Scoping identified eight broad issue categories that were addressed when developing management alternatives for the refuges:

- **Habitat Management:** What is the best way to manage habitats on the refuges to maximize benefits to wildlife and support conservation in the greater Missouri River ecosystem?
- **DeSoto Lake:** What is the best way to manage DeSoto Lake to maximize benefits to wildlife and people?
- **Land Conservation:** What Service footprint will best accomplish the refuges’ land and water conservation goals and best supplement Missouri River ecosystem conservation?

- **Wildlife:** How can the refuges have the greatest beneficial impact on wildlife in the Missouri River ecosystem?
- **Refuge Administration:** In what ways can the administration of the refuges be improved?
- **Visitor Services & Public Use:** How can the refuges direct resources to provide the best visitor services possible while adhering to capability standards for such uses (given wildlife as the Service's first and highest priority)?
- **Infrastructure:** What is the best configuration of refuge infrastructure for both administration and visitor use?
- **Outreach, Support, & Partnerships:** How can the refuges bolster their relationships with partners, visitors, and other constituents?

Management Alternatives

The comprehensive conservation planning process for refuges is guided by NEPA and calls for the development and consideration of alternative management scenarios. Four management alternatives were developed as a part of the EA covering a wide spectrum of biological and visitor services management possibilities.

Alternative A, per NEPA guidelines, is the No Action Alternative—current management projected out over the next 15 years. The habitat management emphasis on both refuges will continue to be mesic grassland and bottomland forest habitats with a minor seasonal wetland component. The cooperative farming program on DeSoto NWR will be maintained at approximately 500 acres. Wildlife management will continue to consist predominantly of seasonal monitoring activities—often conducted in collaboration with partners. The refuges will retain a sizeable visitor services program centered on interpretation of the natural history of the Missouri River Valley, the significance of the Steamboat Bertrand Museum Collection, a robust environmental education program with area schools, managed seasonal opportunities for consumptive uses (hunting, fishing, and mushroom gathering), and a high level of non-consumptive uses (wildlife observation and photography).

Alternative B reduces active management in favor of a passive, low-maintenance philosophy. Grassland maintenance and DeSoto's agriculture program will end, dramatically increasing the forest/shrub community. Working with the U.S. Army Corps of Engineers, DeSoto Lake will be reconnected to the Missouri River to a limited extent—creating additional backwater areas and wide seasonal fluctuations in the associated wetland habitat. Wildlife monitoring and the visitor services programs on both refuges will be greatly reduced. Periodic floods will have greater impacts on the refuges due to limited controls, and much of the infrastructure will be eliminated or relocated out of the floodplain—including the Steamboat Bertrand Museum Collection.

Alternative C also favors passive, low-maintenance management of biological resources, but this time in favor of expanding the visitor services program on the refuges. Similar to Alternative B, grassland habitats and DeSoto's agriculture program will decrease as these areas succeed to forest/shrub communities. DeSoto Lake will be managed to enhance its sport fishery. The public will have increased access to the refuges for a larger diversity of uses, and additional visitor services facilities will be constructed.

Alternative D, the proposed action, takes an active approach to habitat and wildlife management and monitoring, focusing on an expansion of seasonal wetland habitat to emulate preregulation flood cycles of the Missouri River. This alternative also provides a moderate increase in visitor services available to the public, with seasonal access managed to minimize disturbance of migratory birds.

Environmental Consequences

The EA/Draft CCP includes an analysis, evaluation, and summary of the environmental consequences of implementing the four alternatives. This impact evaluation considers all aspects of the affected environment, including physical, biological, socioeconomic, and cultural resources. Most effects from the alternatives will be beneficial over the long-term; however, the resources type that benefits varies across the alternatives.

In general across all alternatives the vast majority of effects are beneficial and long-term, predominantly minor or moderate, and local in scope. Transitioning habitats from one type to another (e.g., grassland to wetland) would benefit some species while adversely impacting others, incurring a net neutral impact on the system. All management decisions involve tradeoffs. For example prescribed burns have both positive impacts (to habitat and wildlife) and adverse impacts (to air quality and climate change); or the conversion of cropland to natural cover types benefits biological and abiotic resources but adversely impacts area cooperative farmers.

Alternative A, the current management (no action) alternative, sets the baseline with its emphasis on mesic habitats. Alternative B provides beneficial new backwater habitat and reduces the overall management workload and footprint—at the expense of visitor opportunities and habitat diversity (both decrease substantially). Alternative C reduces the habitat management workload at the expense of habitat diversity (similar to Alternative B), but under this alternative these freed resources are transferred to the visitor services program, which is greatly expanded across the refuges. Alternative D, the proposed action, offers minor to moderate increases in both habitat diversity and visitor opportunities, placing slightly greater demands on available finances and staff.