

DeSoto

National Wildlife Refuge



Final
**Comprehensive
Conservation Plan**

January, 2001



Executive Summary

Background

In accordance with the National Wildlife Refuge System Improvement Act of 1997, a Draft Comprehensive Conservation Plan (CCP) has been prepared for DeSoto National Wildlife Refuge. The purpose of the CCP is to specify a management direction for the refuge for the next 15 years.

DeSoto NWR straddles the Missouri River about 25 miles north of Omaha, Nebraska, in Harrison and Pottawattamie Counties, Iowa, and Washington County, Nebraska. The refuge is 7,823 acres in size, of which 3,499 are in Iowa and 4,324 in Nebraska. It is best known for its remarkable snow geese migration every autumn and for its *Bertrand* Collection of artifacts from a steamboat that sank in 1865 on the DeSoto Bend of the Missouri River on what is now the refuge. DeSoto Lake is a seven-mile oxbow lake created in 1960 when the Corps of Engineers excavated a shorter channel and constructed a levee to separate the new lake from the river.

DeSoto was established on March 12, 1958. It was authorized by the Migratory Bird Conservation Act of 1929 for "...use as an inviolate sanctuary or for other management purposes, for migratory birds." Later, the Refuge Recreation Act of 1962 identified additional purposes for which the refuge was suitable: "...(1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..."

DeSoto's mission statement elaborates on the refuge's purposes: "*To preserve and restore indigenous biological communities, with emphasis on wetland and riverine flora and fauna, and to provide both cultural and natural history interpretations for environmental education; and wildlife-dependent recreation, where and when such uses are compatible with the primary purposes of the refuge.*"

DeSoto NWR manages a variety of habitats that provide resting, foraging, and nesting opportunities for nearly 250 species of resident and migratory birds. The major habitat types include woodlands (3,345 acres), freshwater aquatic (900 acres), croplands (1,990 acres), and native grasslands (1,640 acres). DeSoto Lake contributes 788 acres of aquatic area to the refuge's rich habitat mix. This diversity of habitats supports an abundance of resident flora and fauna. This CCP recommends that approximately 1,500 acres of cropland on DeSoto NWR be reverted to about 1,140 acres of native grasslands, 355 acres of cottonwood forest, and 14 acres of moist soil management units and other wetland types.

Management techniques now used on the refuge include control of DeSoto Lake water levels, wetlands and moist soil units; biological, chemical and mechanical control of invasive plant species; mowing, haying and prescribed burning of grasslands; biological rotations on cropland; food plots; some tree planting, grass seeding, and hunting of white-tail deer and waterfowl.



The CCP Planning Process

The planning process for this CCP began with a “kick-off” meeting in July 1999. Initially, members of the CCP planning team and refuge staff identified a list of issues and concerns that were associated with refuge management. These preliminary issues and concerns were based on staff knowledge of the area and association with citizens in the community. The planning team, consisting of refuge staff, Service planners and a consultant to the Service, then invited refuge neighbors, organizations, local government agencies, local staff of national and state government agencies, schools, and interested citizens to share their thoughts in a focus group meeting (19 participants) on August 18, 1999 and at an open house session on September 14, 1999 (12 participants). The planning team accepted oral and written comments at the open house.

The focus group identified a number of issues facing DeSoto Refuge:

- Lake management issues
- Grassland/cropland balance
- Snow goose management
- Drainage
- Regional perspective
- Deer and beaver property damage
- DeSoto Lake fishery management
- Public use activities on refuge
- Outreach and education
- Prairie wetlands
- DeSoto Lake water quality
- Invasive species
- Riparian forests
- Endangered species
- Environmental monitoring
- Biodiversity relative to landscape
- Commitment to *Bertrand* exhibit
- Facilities maintenance and upkeep
- Cooperation with public and agencies

In October, 1999, the planning team met for an intensive three-day workshop to develop and consider four management alternatives that addressed these issues and concerns in different ways. The alternatives generally describe levels of management varying from near passive to more intensive. Once an alternative level of management was selected, methods for achieving that level could be developed (goals, objectives and strategies). The four management alternatives considered were:

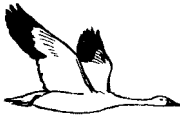
Alternative A: No Action — Current management practices would continue.

Alternative B: Maximize Restoration and Conservation of Historical Natural Resource Conditions — Under this alternative, management would aim to restore pre-settlement, natural resource conditions on the refuge.

Alternative C: Maximize Compatible Public Use Potentials — Refuge management would emphasize the six compatible, priority wildlife-dependent uses.

Alternative D: Optimize Natural Resource Conditions and Public Use Potentials (Preferred) — Management would seek the best or optimal balance between the competing ideals of natural resource conservation and public use.

Developing and implementing the CCP constitutes a “proposed action” by a Federal agency, and



is therefore subject to the National Environmental Policy Act of 1969, which requires that the environmental effects of the proposed action and alternatives to the proposed action be analyzed. Accordingly, the above alternatives and the preferred alternative (D) are more fully described and evaluated in an attached Environmental Assessment (Appendix A). This EA concludes that the preferred alternative would not generate significantly adverse environmental impacts.

Subsequent planning team meetings in November, 1999 and January, 2000 were held with Region 3 U.S. Fish and Wildlife Service officials and biologists in Fort Snelling, Minnesota to critique and revise these draft alternatives and associated goals and objectives. In February, 2000 the planning team again met for two days at DeSoto Refuge to further refine goals, objectives, and strategies. The first draft of the CCP, prepared in February and March, was subjected to three rounds of review and revision by the planning team and refuge staff, regional office, and the national office and other refuges in subsequent months.

Highlights of the Recommended Comprehensive Conservation Plan

The CCP contains a number of goals, objectives, and strategies that will guide refuge management over the next 15 years. These are presented in Chapter 5. Four goal areas were identified: wildlife populations and habitat management, resource protection, public education and recreation, and partnerships. The goals under each of these areas are presented below:

Wildlife Populations and Habitat Management Goals

- < Manage DeSoto Refuge habitat to be attractive and beneficial to migratory waterfowl, especially during migration seasons.
- < Actively assist international efforts to reduce the mid-continent population of snow geese by at least 5% each year from the 1998 population of about 3 million, down to an eventual level of about half of that, in accordance with recommendations of the Arctic Goose Habitat Working Group.
- < Monitor the health, viability, and size of fish and wildlife populations on the refuge with enough accuracy to detect significant changes and take appropriate management actions.
- < Augment opportunities on the refuge for nesting, resting and foraging of non-game and Trust bird species, in particular those songbird and neotropical species listed in Region 3's *Resource Conservation Priorities*, by gradually reverting cropland into other more natural habitats.
- < Manage refuge croplands in a manner compatible with refuge purpose, mission, and identified wildlife habitat needs. Ensure that cropland acreage is at the minimum necessary to accomplish habitat and wildlife food objectives.



- < Enhance the survival of indigenous threatened and endangered species.
- < Manage DeSoto Lake so that it makes the highest possible contribution to the refuge's mission to "...preserve and restore indigenous biological communities..."
- < Control and reduce the presence of exotic, invasive, and nuisance species of plants and animals on the refuge.
- < Manage the size of the white-tailed deer herd on the refuge through controlled hunts in order to minimize over-browsing and complaints of crop damage while continuing wildlife-dependent, compatible uses of hunting and wildlife observation.
- < Conserve cottonwood dominance in the canopy of DeSoto NWR riparian forests for wildlife habitat value.
- < Evaluate opportunities and needs to acquire additional lands that would enhance accomplishment of refuge goals and objectives.

Resource Protection Goals

- < Adequately protect all natural and cultural resources, staff and visitors, equipment, facilities, and other property on the refuge from those of malicious intent in an effective, professional manner.
- < Maintain and preserve, in perpetuity, the entire *Bertrand* Collection and associated records.
- < Provide for the safety of staff and visitors.

Public Education and Recreation Goals

- < Provide a variety of educational and interpretive opportunities for an increasing number and broad diversity of on-site visitors – including those from local communities, the region, the nation and the world – about the natural and cultural resources of DeSoto NWR, the Lower Missouri River ecosystem, and the mission of FWS.
- < Provide and maintain a variety of sites and facilities at a number of locations throughout the refuge that encourage visitors to observe and photograph wildlife and other refuge resources and features, either from their vehicles or on foot.
- < Protect, restore, and manage sport fish habitat and populations in DeSoto Lake to provide quality recreational fishing opportunities for refuge visitors as long as the oxbow lake environment is maintained.
- < Provide opportunities for compatible consumptive uses of natural resources such as hunting waterfowl and deer.



- < Raise the profile and visibility of DeSoto National Wildlife Refuge locally, regionally and nationally by maintaining an active public affairs program that keeps local communities and officials aware of refuge events and activities.

Partnership Goals

- < Augment DeSoto staff productivity through participation of volunteers in a variety of capacities at the refuge.
- < Actively encourage and provide assistance and logistical support to qualified researchers for ongoing cooperative investigations of long-term management importance to the refuge, such as lake management and renovation, lake water quality, Missouri River issues, habitat utilization by wildlife, snow geese population management, grassland ecology, sustainable agriculture, Steamboat *Bertrand* artifacts preservation and so forth.
- < Increase acreage of new and restored privately-owned wetland and upland habitat within the 18-county management district of the DeSoto NWR Private Lands program. This involves actively providing technical assistance to private landowners and habitat-related interagency coordination with other state and federal agencies and non-governmental organizations.
- < Seek opportunities to partner with federal, state, and local resource management agencies to develop ecosystem protection and restoration projects that complement the programs of involved partners.
- < Increase level of active cooperation with NGO's (Non-Governmental Organizations) on different aspects of on-refuge and off-refuge management and educational efforts, both with greater number of NGO's as well as a greater level of effort.
- < Assist outside parties interested in research and study of the *Bertrand* Collection.

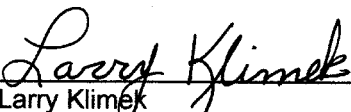


Snow goose by Bob Hines, USFWS



DeSoto National Wildlife Refuge
Comprehensive Conservation Plan Approval
U.S. Fish and Wildlife Service, Region 3


Submitted By:



Larry Klimek
Refuge Manager

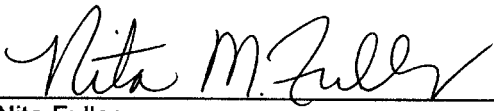
12-19-00
Date

Concur:



Jon Kauffeld
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1-9-01
Date



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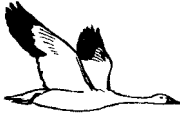
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Date

Approved:



William Hartwig
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1-24-01
Date



Acknowledgments

Many organizations, agencies and individuals provided valuable assistance with the preparation of this Comprehensive Conservation Plan. We gratefully acknowledge the input and support of those natural resource professionals and refuge neighbors who participated with DeSoto staff in the kick-off meeting on July 8, 1999, including Mike LeValley and Mark Wilson of the Service's Missouri River Natural Resources Committee and Columbia Field Office, respectively; a focus group meeting on August 18, 1999, including Warren Bielenberg, Gary Guge, Scott Hygnstrom, Russell Kurth, Bruce Mountain, Steve Rothe, Rich Scebold, Jeff Schuckman, Bob Seitz, Tim Sproul, Kent Thomas and Fred Van Dyke; members of the public and agency representatives who participated in an open house on September 14, 1999, including Bob Crogan, Brian Hansen, David Hansen, Richard L. Johnson, Bob Moore, George Oliver, Lester Rurup, Ed Tuttle, Bruce Thomas, William Thomas, Fred Wupper and John Wupper; and finally, those dedicated DeSoto staff who enthusiastically brainstormed during a 3-day alternatives workshop in October, 1999 and a 2-day meeting in February, 2000, to consider goals, objectives, and strategies, including George Gage, Marco Buske, Bill Lutz, Mindy Sheets, Sarah Tuttle, Steve Van Riper, and Bruce Weber, as well as Jim Milligan of the Fish and Wildlife Service's Columbia FRO.

Region 3 of the U.S. Fish and Wildlife Service is grateful to the Midwest Interpretive Association, Ducks Unlimited, the Omaha Chapter of the National Audubon Society, and the Boy Scouts and Girl Scouts of America for their dedication to DeSoto National Wildlife Refuge and making it an outstanding example of cooperation and partnership with the community.

The Region is equally grateful to every volunteer who contributes time to the programs offered at DeSoto National Wildlife Refuge. Volunteers are truly the backbone of the nation's conservation efforts. America and the world are crossing the threshold of a new century and a new millennium, one filled with both promise and peril for wildlife and wild places. Thanks in no small part to a century of civic action, professional stewardship and committed volunteers, America's wildlife faces better prospects at the onset of the 21st century than 100 years ago at the onset of the 20th.



U.S. Fish and Wildlife Service Notification Clause

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Publication Accessibility

Available in alternative formats upon request.



DeSoto National Wildlife Refuge Visitor Center
credit: David Menke