

Chapter 5: Plan Implementation

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5.1 Introduction

This chapter summarizes the actions, funding, coordination, and monitoring needed to implement the Comprehensive Conservation Plan (CCP). As noted in the inside cover of this document, this plan does not constitute a commitment for staffing increases or operational and maintenance increases. These decisions are at the discretion of Congress in overall appropriations and in budget allocation decisions made at the Washington and Regional levels of the U.S. Fish and Wildlife Service (FWS, Service).

5.2 Funding

This CCP outlines an ambitious course of action for the future management of Neal Smith National Wildlife Refuge (NWR, Refuge). The ability to enhance wildlife habitats and to develop and maintain quality public use facilities will require a significant commitment of staff and funding from the Service. The Refuge will continually need appropriate operational and maintenance funding to implement the objectives of this plan. This section provides a brief description of the highest priority Neal Smith NWR projects as chosen by the Refuge staff.

Expansion of Bison Fence

The existing enclosure is approximately 700 acres and supports approximately 70 bison and 20 elk. The 8-foot tall woven wire fence with wooden posts will be reconfigured. This project would enlarge the size of the enclosure to as much as 1,500 acres, and could allow a doubling of the size of the bison herd. This will allow Neal Smith NWR to better manage for a more botanically and structurally diverse prairie and support the Service's bison genetics conservation efforts by moving to expand and protect bison genetic material that lacks evidence of cattle gene introgression and by expanding the unique genetics represented in the National Bison Range herd through relocation. Reconfiguring the enclosure is needed to maintain adequate space and forage for the existing herd of elk and bison. In addition, through more aggressive grassland management practices, the Refuge may be in a better position to eventually reintroduce the Greater Prairie-Chicken.

Estimated Cost \$105,000

Repair Deteriorated Bison Containment Fence

This asset consists of 30,000 linear feet of 8-foot tall by 6-inch diameter (exposed, 12 feet total) posts that are about ten-feet apart with wire containment fencing. Most of the fenceline is in good condition but approximately five to ten percent of posts are damaged and/or degraded and require replacement in order to prevent wildlife from breaching the containment area.

Estimated Cost \$20,000

Building Visitor Center and Office Rehabilitation

General rehabilitation work is required as follows:

- The security system is inadequate due to inadequate materials for the size and commercial function of the building. Remove and replace with commercial grade security system. There are 12 air handlers for the building with carbon dioxide (CO₂) monitors. The air handlers and sensors are failing and must be replaced. Eighteen of the 20 compressors and five of the six geothermal pumps are failing and must be replaced. Abandoned conduit through the concrete into the HVAC room needs to be fire caulked/sealed.
- The roof was replaced five years ago, but interior damage has not been repaired. Remove and replace 15,000 square feet ceiling tile. Remove and replace 500 board feet of interior window trim, and refinish an additional 1,000 board feet. Replace 2,500 square feet water-damaged wall coverings with sheetrock. Replace electrical circuits damaged during the roof replacement. This will require 1,000 linear feet of #12 stranded and 100 linear feet of ¾-inch electrical metallic tubing. Exterior windows and casings need existing caulking removed and replaced, as it is weathered and failed.
- Replace 15,000 square feet of carpet in the Visitor Center due to mildew and potential mold caused by inadequate drainage beneath the floor. No water barrier was installed beneath the concrete flooring when the building was originally constructed. To correct this structural problem, an electric osmotic pulse system was installed to stop water percolation through the floor. The system has failed causing chemical reactions to occur at cathode/diode sites creating a leachate to stain carpet. Leaky roof drains, leaking roof, thermal expansion, and differential settling have caused damage and cracking to drywall in office area. Five thousand square feet of drywall needs to be replaced, taped and repainted; install ten expansion joints, and repaint 10,000 square feet sheetrock. The building's 119-gallon gas water heater does not meet current energy efficiency standards (built in 1990, installed in 1996) and must be replaced. Fifteen thousand square feet of soffits, fascia, and wood timber exterior needs pressure washing and resealing.
- Integrated neon lighting in the theater does not function properly and must be replaced with more energy efficient lighting. Fifty emergency battery back-up lamps are failing and must be replaced. Four dome skylights in the gift shop have failed and must be replaced. Drains in greenhouse, planting room, and men's shower floors are not graded to drain. Remove and replace 1,000 square feet tile, and mill 100 square feet concrete floor for adequate slope to drain.
- Foundation waterproofing on the building exterior has delaminated and must be replaced. Apply three-ply waterproofing to perimeter of entire building. Erosion, settling, and animal burrows are apparent around the perimeter of the building. Re-grade, compact, and seed. A 15 by 20 foot false ceiling in the loading dock platform of the Visitor Center needs to be installed to prevent bird access to the roof interior where they have nested and caused damage to the ceiling insulation. A workroom used for soldering and brazing does not have adequate ventilation. Install an exhaust hood. A large floor crack runs through several rooms and on a west-side exterior foundation wall. Interior floor cracks have been ground and grouted, but the floor must now be covered with 4,000 square feet tile, and epoxy grout ½-inch by 6-foot crack in foundation wall. Re-caulk all windows, and replace lighting with more efficient models.

Estimated Cost \$671,840

Realignment and Expansion of Savanna Trail

This gravel surface trail will be expanded from ½ mile to 1 mile in length and will better meet Americans with Disabilities Act requirements by more closely following the contours of the landscape.

Estimated Cost \$75,000

Realignment of Tallgrass Trail

Approximately ½ mile of this trail will be re-surveyed and moved farther up the hill to elevate it out of the floodplain and allow better visibility of the bison enclosure.

Estimated Cost \$100,000

Construction of Connector Trail between Savanna and Basswood Trails (including Bridge Construction over Creek)

The three-mile Connector Trail will follow the contours of the landscape and will highlight the transitional zone between prairie and savanna habitats. Construction of a foot bridge capable of weight loads equivalent to UTVs will be built.

Estimated Cost \$400,000

Resurface Basswood Trail

This ½ mile long trail will be resurfaced to gravel but will continue the same route as currently exists.

Estimated Cost \$50,000

Redesign, Construction, and Installation of Exhibits in Visitor Center

A plan and cost estimate is being prepared for redesign, construction, and installation of new exhibits as well as new color scheme and finishes for the Visitor Center and administrative areas of the building. Current exhibits are out of date, technology is obsolete (unable to be repaired), and some exhibits are broken. The current theme will be updated. Old exhibits will be recycled where possible either in the Visitor Center or will be donated to other conservation entities if possible.

Estimated Cost \$2,000,000

5.3 Staffing

Currently, Neal Smith NWR has a staff of 10.5 full-time employees. Table 5-1 below lists current staff. Additional positions will likely be needed for full implementation of this CCP. However, future funding is uncertain, and new staff positions cannot be guaranteed.

Table 5-1: Current and proposed Neal Smith NWR staffing

	Current Staffing	Proposed Additions
Management	Wildlife Refuge Manager, GS-13 Assistant Refuge Manager, GS-11/12 Wildlife Refuge Specialist, GS-07/09	
Biological	Wildlife Biologist, GS-11	Wildlife Biologist, GS-0486-07
Visitor Services	Park Ranger, GS-07/09 Park Ranger, GS-07/09	Park Ranger, GS-05/07
Administrative	Administrative Officer, GS-09 Office Assistant, GS-05 (0.5 FTE)	
Maintenance	Maintenance Mechanic, WG-09 Maintenance Worker, WG-07	
Fire Management	Fire Management Specialist, GS-09	
Law Enforcement	<i>None</i>	LE Officer, GS-07/09

5.4 Partnership Opportunities

Partnerships are an essential element for the successful accomplishment of goals, objectives, and strategies at Neal Smith NWR. The objectives outlined in this CCP need the support and the partnerships of federal, state, and local agencies; non-governmental organizations, and individual citizens. Refuge staff will continue to seek creative partnership opportunities to achieve the vision of the Refuge.

We expect to continue to work with the following notable partners, while also developing new partnerships:

- Iowa Department of Natural Resources
- Friends of Neal Smith National Wildlife Refuge
- Iowa Natural Heritage Foundation
- Jasper County Conservation Board
- Polk County Conservation Board
- Dallas County Conservation Board
- Prairie City Business Association
- U.S. Army Corps of Engineers
- Local and Des Moines area partner schools
- Iowa Prairie Network
- Iowa State University
- Iowa Natural Heritage Foundation
- Iowa Audubon
- Des Moines Audubon Society
- Iowa Ornithologists' Union
- Iowa Native Plant Society

5.5 Step-Down Management Plans

The CCP for Neal Smith NWR is intended to be a broad umbrella plan that 1) outlines general concepts and objectives for habitat, wildlife, visitor services, cultural resources, and partnerships; and 2) guides Refuge management for the next 15 years. Step-down management plans provide greater detail for carrying out specific actions authorized by this CCP. Table 5-2 below presents step-down management plans that are anticipated to be needed, along with their current status and next revision date. Some of

these plans logically suggest an integrated approach and, where appropriate, may be combined into a single integrated step-down management plan.

Table 5-2: Step-down management plans

Step-down Management Plan	Existing Plan Year Approved	New or Revised Plan
Habitat Management	--	2014
Fenced Animal Management	2002	2015
Integrated Pest Management	--	2014
Inventory and Monitoring	--	2014
Fire Management	2009	Updated Annually
Chronic Wasting Disease	2005	2020
Visitor Services	--	2014
Hunting	1992	2012

5.6 Monitoring and Evaluation

The direction set forth in this CCP and specifically-identified strategies and projects will be monitored throughout the life of the plan. Many actions inherent in the plan are new directions, and monitoring will help understand the effects of the actions on habitat, wildlife, and public use patterns. In addition, the Refuge and its watershed will certainly change, and likely in ways unforeseen. Land use changes, invasive species, floods and droughts, disease outbreaks, and climate may alter expected outcomes. Monitoring will be critical to detecting and reacting to such change.

5.7 Plan Review and Revision

The CCP is intended to be a dynamic plan based on the concept of adaptive management. Since the CCP will be a constant reference and guide for Refuge staff, internal review will be continuous. In addition, it is expected that the public and partners will offer continuous feedback. The Service will document minor plan modifications when monitoring and evaluating to determine that changes are needed to achieve Refuge goals and objectives. There will be opportunity for public review and comment before making any substantive amendments or revisions. A major plan review and re-write will occur after 15 years.