Summary
Final Environmental Impact Statement for Driftless Area National Wildlife Refuge Comprehensive Conservation Plan

Algific talus slope on Driftless Area NWR. USFWS

Introduction

This document is an integrated Comprehensive Conservation Plan (CCP) and Final Environmental Impact Statement (FEIS) for the Driftless Area National Wildlife Refuge (NWR) in Iowa. The Driftless Area National Wildlife Refuge was established in 1989 with the purpose of conserving threatened and endangered species. Specifically, the Refuge conserves populations of the endangered Iowa Pleistocene snail and threatened Northern monkshood. These species occur on a rare and fragile habitat type termed algific talus slopes (cold air slopes). These are areas where cold underground air seeps onto slopes to provide a constant cold microenvironment. This habitat harbors species, some of which date from the Ice Age, that require a cold environment.

The National Wildlife Refuge System Improvement Act of 1997 requires all national wildlife refuges to complete a CCP to describe Refuge management for a 15-year time frame. Refuge management is currently guided by endangered species recovery plans, general policies, and shorter-term plans. The CCP and preferred alternative in the FEIS describe the direction for the Refuge for the next 15 years (2005-2020). The aim is to conserve enough populations of the above species to reach recovery goals, as well as conserve unique algific talus slope habitat and the associated community of rare plants and animals. This plan also describes habitat restoration and management for other wildlife that includes the use of prescribed fire. Visitor services goals are also part of the plan. The CCP will help ensure that management and administration of the Refuge meets the mission of the Refuge System, the purpose for which the Refuge was established, and the goals for the Refuge.

The purposes and goals of the Refuge are directly tied to recovery plans which describe the steps needed to recover and conserve the Northern monkshood and Iowa Pleistocene snail. Because of the fragile nature of their habitat and the low number of populations for each of these species, the primary recovery goal for both species is protecting and conserving the majority of remaining populations and their habitat. The primary threats to the habitat are grazing, logging, sinkhole filling, erosion, pesticides, invasive species, and development. Therefore, it is desirable to protect land surrounding the endangered species habitat to provide a buffer area from some of these threats.

Achievement of the Refuge purpose will help reach endangered species recovery goals, which will lead to delisting. The Refuge has reached its existing approved acquisition acreage. The original authorized acquisition area for the Refuge was approximately 700 acres in eight counties in Iowa, Illinois, and Wisconsin (Figure A) (U.S. Fish and Wildlife Service 1986). A preliminary project proposal for Refuge expansion was approved in 1993. However, the Refuge did not pursue further study for the 1993 proposed expansion until the CCP process began in 2002. A Land Protection Plan is also included with the FEIS that outlines the overall expansion plan for the Refuge. Since Refuge establishment, additional information indicates the need to expand the Refuge geographic area and acreage, and to address ecological issues related to protection of endangered species. The CCP will achieve the following Refuge goals:

Goal 1. Habitat: Conserve endangered species habitat and contribute to migratory bird and other wildlife habitats within a larger landscape.

Goal 2. Species Management: Manage and protect endangered species, other trust species, and species of management interest based on sound science through identification and understanding of algific slope communities and associated habitats.

Goal 3. Visitor Services: Visitors understand and appreciate the role of the Refuge in protecting endangered species.

The Refuge consists of nine scattered tracts or 'units' totaling 781 acres containing upland hardwood forest, grassland, stream and riparian habitats. The current management practice is to protect endangered species habitat, restore other habitats to presettlement vegetation when possible, and control invasive species. Prescribed burning is used in habitat management. Two Refuge units are open for hunting, fishing, and wildlife observation and photography. Presentations and tours are given as requested and staff time allows. The Refuge is managed under the Upper Mississippi River National Wildlife Refuge Complex, which includes three Refuges. The Refuge office is co-located with the McGregor District of Upper Mississippi River NWFR. One full-time Refuge Operations Specialist is assigned to the Refuge.

Planning Issues

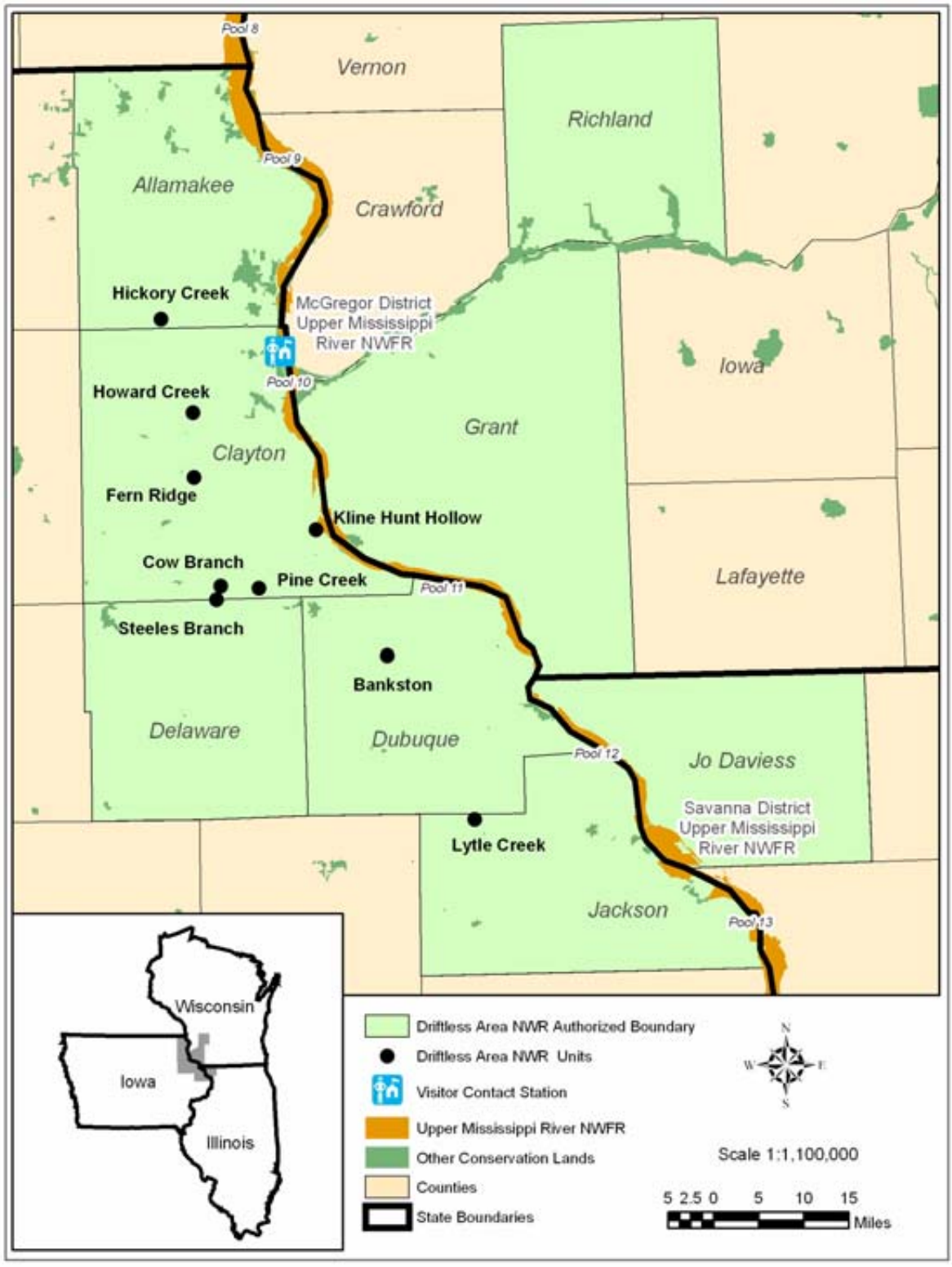
From public involvement activities that occurred when planning began in 2002, the Service learned about issues that concerned people about management of the Refuge. Refuge staff also identified issues. We organized the issues into four categories: Habitat Management, Visitor Services, Refuge Expansion, and Species Assessments.

Issue 1: Habitat Management

Land acquired for the Refuge typically has been impacted by agricultural or logging activities. Refuge lands are small parcels, often fragmented from similar habitat in the area. Current management is to restore as much as practical to presettlement habitat types around algific slopes, although lack of funds and staff limit restoration efforts. Several external factors are influencing management efforts on the Refuge. Invasive species such as garlic mustard are impacting endangered species and other wildlife habitat. High local deer populations may also impact habitat. Erosion from farming adjacent to the Refuge can affect habitat on the Refuge.

Potential solutions identified by the public were to develop management strategies for forests, including consideration of deer impacts, expand management of habitats surrounding endangered species habitat, and work to control invasive species.

Figure A: Current Driftless Area NWR Lands in Iowa



Issue 2: Visitor Services

Public use has not been emphasized on Driftless Area NWR because of concern for the fragile endangered species habitat, and the small size and lack of access to some units. Two of nine units are currently open to public use. Potential solutions suggested by the public were to maintain current hunting policies but increase awareness of regulations at the site, consider trail development in less sensitive areas, provide on-site information and education at select algific slopes while restricting direct access and negative impacts, provide guided walks, and encourage volunteers.

Northern monkshood. Bob Clearwater

Issue 3: Refuge Expansion

Refuge expansion will facilitate recovery goals and allow delisting of target species. Refuge land acquisition is aimed at protecting the entire algific slope system (endangered species habitat), including upland sinkholes and buffer area around the slope. Many of the currently protected algific slopes do not have adequate protection of sinkholes nor provide buffer from adjacent agricultural or other uses. Conservation of additional snail and monkshood populations is also needed to preserve genetic diversity over their range and protect the majority of the populations as required by the recovery plans. In addition, protection of Service species of concern may preclude the need for future listing and would conserve a unique representative natural community and its biodiversity.

Potential approaches raised by the public were to investigate alternatives to acquisition (e.g. conservation easements), increase funding for land protection, connect parcels of land where possible and expand boundaries to roads, railroads, or more recognizable features.

Issue 4: Species Assessments

Additional information about algific talus slopes and the species that inhabit them is needed. For example, locations of sinkholes and specific information on distances and function of the cold air flow have not been studied. There are nearly 400 algific slopes/maderate cliffs in the Driftless Area, but not all are occupied by currently listed species. Few in-depth species surveys were done and many of the known algific slope sites were only visited once. There may be rare, endemic, or unidentified species in this habitat. It is important to know what plants and animals depend on this habitat to prepare effective management strategies. Although original surveys to locate this habitat type were systematic and comprehensive, some sites likely remain undiscovered.

Management Alternatives

The Service constructed a range of alternatives from ideas provided by the public and Refuge staff. Many of the ideas were identified at a "Manager for a Day Workshop" open to the public.

Three alternatives for future Refuge management are described: A) no action, B) habitat protection emphasis, and C) habitat protection, increased management, and integrated wildlife-dependent recreation. Our preferred alternative is identified as Alternative C. This EIS considers the biological, environmental and socioeconomic effects that the three alternatives would have on the most significant issues and concerns identified during the planning process.

Alternative A: No Action: Status Quo (No Action)

This alternative assumes no change from past management programs and is considered the base from which to compare the other alternatives. There would be no lands added to the Refuge and no major changes in habitat management or public use programs. The Refuge would assist others in protection of additional endangered species habitat.

The primary consequence of this alternative is that endangered species recovery would likely not occur. Minimal management of other habitats may result in increased invasive species, increased erosion, and undesirable wildlife habitat. There would be no change in public support for the Refuge mission and no increase in public use opportunities.

Alternative B: Habitat Protection Emphasis

The approved acquisition area is proposed to be 6,000 acres in 22 counties in Illinois, Iowa, Minnesota, and Wisconsin. The primary emphasis of the Refuge would be land acquisition and other forms of habitat protection to expand the Refuge by 3,400 acres in the next 15 years for endangered species recovery and proactive protection of species of concern. This alternative also emphasizes minimal physical disturbance of endangered species habitat. Alternative B is primarily aimed at reaching habitat protection recovery goals for both species with more land acquisition than Alternative C. Some aspects of recreation, habitat restoration and control of invasive species would be at current levels and some would be reduced. The amount of public use would be monitored.

Coyote. USFWS

Although this alternative would make significant progress to permanent protection of habitat, recovery would likely not occur under this alternative because it would not address multiple recovery tasks that are needed to delist species. Other rare species would be protected under this alternative, but no further information would be gained on them. The physical environment of algific talus slopes would be more strictly protected under this alternative. Land acquisition would also protect water quality, soils, and aesthetic qualities of the region. Less habitat restoration under this alternative may result in increased invasive species and erosion. There would be no change in public support for the Refuge.

Alternative C: Habitat Protection, Increased Management, and Integrated Wildlife-Dependent Recreation (Preferred Alternative)

The approved acquisition area is proposed to be 6,000 acres in 22 counties in Illinois, Iowa, Minnesota, and Wisconsin. This alternative would provide for expansion of the Refuge by 2,275 acres in the next 15 years for endangered species recovery and proactive protection of species of concern. Alternative C includes increased land acquisition for recovery and delisting of the Iowa Pleistocene snail. Many of the recovery goals addressed for the snail would also benefit Northern monkshood. More active management of Refuge lands and endangered species habitat would take place under Alternative C to meet multiple recovery tasks for delisting of the Iowa Pleistocene snail. Restoration of forest habitat would be increased; there would be increased attention to control of invasive species, and inventory of plants and wildlife. Public use would be increased for environmental education and wildlife observation only where adequate public access and sufficient buffer areas around endangered species habitat exist. The amount of public use would be monitored.

The consequences of Alternative C include delisting the Iowa Pleistocene snail, habitat restoration that would benefit other wildlife species, and improved water quality and soils. Other rare species would also benefit. There would be greater potential to impact habitats with more emphasis on study and management, as well as greater emphasis on public use. However, these increases are minor and minimized by conducting work in specific ways.

The following apply to all alternatives:

- # Cultural resources would be managed the same as under current Refuge management.
- # Endangered species habitat would remain closed to all public entry.
- # At least the current level of public use would remain under all alternatives.
- # Prescribed fire would be used under each alternative to manage habitats under the current approved Refuge fire plan.
- # The Iowa Pleistocene snail and Northern monkshood recovery plans would be revised and updated.

The economic effects of the alternatives are also discussed in the FEIS. Alternatives B and C would remove lands from agricultural and timber uses with associated economic losses. However, the additional Refuge acquisitions will be small parcels scattered over a large area. Refuge Revenue Sharing payments would continue and recreation on some of these lands would provide local income. Refuge budget and associated expenditures would increase the most under alternative C.

The cumulative impacts of the preferred alternative are delisting the Iowa Pleistocene snail, protection of other biological and physical resources, and beneficial habitat for wildlife. There is more potential for cumulative disturbance impact under the preferred alternative, but these are minor, and management actions would be completed in ways that minimize disturbance.