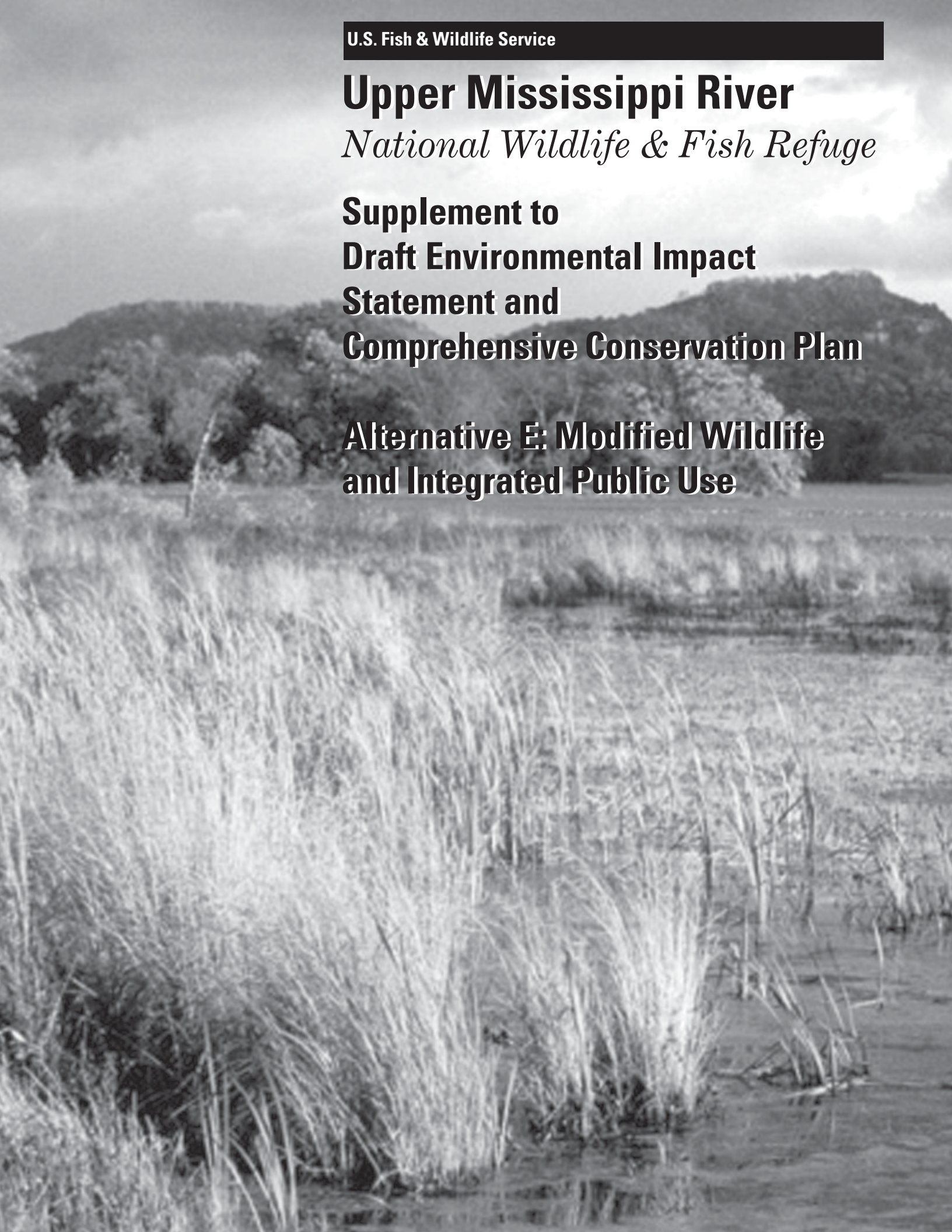


Upper Mississippi River

National Wildlife & Fish Refuge

Supplement to Draft Environmental Impact Statement and Comprehensive Conservation Plan

Alternative E: Modified Wildlife and Integrated Public Use



Cover photograph by Sandra Lines



The mission of the U.S. Fish & Wildlife Service is working with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people.

The mission of the National Wildlife 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 United States for the benefit of present and future generations of Americans.

Comprehensive Conservation Plans provide long-term guidance for management decisions; set forth goals, objectives and strategies needed to accomplish refuge purposes; and, identify the Fish and Wildlife Service's best estimate of future needs. These plans detail program planning levels that are sometimes substantially above current budget allocations and, as such, are primarily for Service strategic planning and program prioritization purposes. The plans do not constitute a commitment for staffing increases, operational and maintenance increases, or funding for future land acquisition.

Upper Mississippi River

National Wildlife and Fish Refuge

Supplement to the Draft EIS/CCP

Alternative E: Modified Wildlife and Integrated Public Use

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Introduction

A Comprehensive Conservation Plan (CCP) is being prepared to guide the administration and management of the Upper Mississippi River National Wildlife and Fish Refuge (Refuge) for the next 15 years. The draft document integrates the components of a CCP, namely goals, objectives, and strategies, with the requirements of an Environmental Impact Statement (EIS), namely alternatives and consequences. This new alternative, Alternative E: Modified Wildlife and Integrated Public Use Focus, is being released as a supplement to the Draft CCP and EIS that was released May 1, 2005.

Comprehensive conservation plans are required by the National Wildlife Refuge System Improvement Act of 1997 to ensure that refuges are managed in accordance with their purposes and the mission of the Refuge System, U.S. Fish and Wildlife Service (Service). The Refuge System is the largest collection of lands and waters in the world set aside for the conservation of wildlife, with over 540 units covering more than 95 million acres in the U.S. and its territories.

The Upper Mississippi River National Wildlife and Fish Refuge encompasses 240,000 acres in a more-or-less continuous stretch of 261 miles of Mississippi River floodplain in Minnesota, Wisconsin, Iowa, and Illinois. The Refuge was established by Congress in 1924 to provide a refuge and breeding ground for migratory birds, fish, other wildlife, and plants. The Refuge is perhaps the most important corridor of habitat in the central United States due to its species diversity and abundance, and is the most visited refuge in the nation with 3.7 million annual visitors.

Following public review of this supplement, Alternative E, a Final CCP and EIS will be prepared and released to the public. The Final CCP and EIS is expected to be released in the spring of 2006. After a 30-day review period, the Regional Director, U.S. Fish and Wildlife Service, Twin Cities, Minnesota, will make a decision on which alternative in the Draft CCP and EIS will become the Final CCP. This decision will be recorded in a formal Record of Decision included in the final documents. Substantive comments from the public, agencies, and other groups will be included in the Final EIS, along with a Service response.

Use of Earlier Comments

This supplement does not represent the final changes to the full Draft CCP and EIS. Comments received during the May 1 through August 31, 2005 comment period, along with comments received on this supplement, will be considered when preparing the Final CCP and EIS. Thus, comments received during the first comment period do not need to be resubmitted to be considered, but as always, any and all comments are welcome.

To Comment on this Supplement

Written comments are welcome and may be submitted by mail or through our website during the 60-day comment period. Mail comments to: Upper Mississippi River NW&FR, Attn: CCP Comment, Room 101, 51 East Fourth Street, Winona, MN 55987; or send an e-mail through the website:

<http://www.fws.gov/midwest/planning/uppermiss>. Comments will also be taken at open houses up and down the 261-mile-long Refuge. Open house dates and locations have been announced through the media and on the website above. The deadline for comments is February 3, 2006.

Reader's Guide

This supplement presents a new preferred alternative and follows the same format as the other four alternatives in the full draft EIS and CCP. Like the other alternatives, Alternative E contains 41 objectives, and each includes a rationale and strategies for implementation. New comparison and summary tables, new maps depicting many features, and two new appendices describing in detail Waterfowl Hunting Closed Areas (Supplement Appendix A on the website) and Electric Motor Areas and Slow, No Wake Areas (Supplement Appendix B on the website), were prepared as part of the supplement. The new tables are included in this supplement and the new maps are included in the Executive Summary, which was distributed broadly. All information is also available in libraries, District Offices, or on-line on the Refuge planning website.

Readers are encouraged to review the full draft EIS and CCP released earlier for background information including issues (Chapter 1), alternatives presented earlier (Chapter 2), description of the environment (Chapter 3), and environmental consequences (Chapter 4). An update to the environmental consequences chapter is included at the end of this supplement. Tables and appendices in the full draft also provide great detail that may be useful in reviewing this supplement. Some of these tables or appendices may also be referenced in this supplement.



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The draft EIS and CCP is available on the Refuge planning website at <http://www.fws.gov/midwest/planning/uppermiss>, in scores of community libraries, or at District Offices in Winona, Minnesota; La Crosse, Wisconsin; McGregor, Iowa; and Savanna, Illinois. Copies are also available on compact disc (CD) by calling (507) 452-4232 or leaving a message at the toll-free number (888) 291-5719.

Brief Summary of Major Changes Reflected in this Supplement

The Draft CCP and EIS was released for public review May 1, 2005 for a 120-day comment period ending August 31, 2005. The Refuge hosted 21 public meetings and workshops attended by 2,900 persons. The workshops resulted in 87 workgroup reports with comments or recommendations on major issues. We also received 2,438 written comments including comments from the four states involved, the Corps of Engineers, and 41 conservation or recreation-related organizations, and six petitions with more than 3,000 signatures. This input was used to make many changes found in Alternative E.

Major differences between Alternative E and Alternative D include:

- Dropping 3 of 6 proposed No Hunting Zones around public use facilities.
- Changes to boundaries in several proposed Waterfowl Hunting Closed Areas.
- Dropping the “no fishing, no motors” provision for Closed Areas in favor of Voluntary Avoidance for large areas and No Motors and Voluntary Avoidance for small areas, with restrictions taking effect October 15 versus October 1 each year to extend fall fishing.
- Dropping the 25 shotshell daily limit and 100-yard spacing regulations.

- Dropping the fee managed hunt proposal for the Gibbs Lake Area of Lake Onalaska in Pool 7 in favor of devising a plan with waterfowlers.
- Reducing the number of Electric Motor Areas from 17 to 6, but adding 8 Slow, No Wake Areas where from March 16 to October 31 each year watercraft must go slow and no airboats or hovercraft are permitted.
- Dropping the restrictions on areas open to camping and proposed alcohol and human waste regulations, but adding a new regulation prohibiting glass containers.
- Dropping the proposal for a launch fee at Refuge-administered boat ramps.

Refuge Vision and Goals

The Refuge Vision provides a simple statement of the desired, overall future condition of the Refuge. Goals provide the themes or framework for measurable objectives and strategies which are the heart of the CCP and the basic structure of the alternatives considered. The vision and goals remain unchanged by this supplement to the plan.

Refuge Vision:

The Upper Mississippi River National Wildlife and Fish Refuge is beautiful, healthy, and supports abundant and diverse native fish, wildlife, and plants for the enjoyment and thoughtful use of current and future generations.

Refuge Goals:

<i>Landscape</i>	We will strive to maintain and improve the scenic qualities and wild character of the Upper Mississippi River NW&FR.
<i>Environmental Health</i>	We will strive to improve the environmental health of the Refuge by working with others.
<i>Wildlife and Habitat</i>	Our habitat management will support diverse and abundant native fish, wildlife, and plants.
<i>Wildlife-Dependent Public Use</i>	We will manage public use programs and facilities to ensure high quality and sustainable hunting, fishing, wildlife observation, wildlife photography, interpretation, and environmental education opportunities for a broad cross-section of the public.
<i>Other Recreational Use</i>	We will provide opportunities for the public to use and enjoy the Refuge for traditional and appropriate non-wildlife-dependent recreation that is compatible with the purpose for which the Refuge was established and the mission of the Refuge System.
<i>Administration and Operations</i>	We will seek adequate funding, staffing, and facilities, and improve public awareness and support, to carry out the purposes, vision, goals, and objectives of the Refuge.

2.4.6 Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)

Increase level of effort on fish and wildlife and habitat management. Take a proactive but balanced approach to public use management to ensure a diversity of opportunities for a broad spectrum of users, both for wildlife-dependent uses and traditional and appropriate non-wildlife-dependent uses.

Alternative E Summary

Boundary issues would be aggressively addressed and areas with greatest encroachment problems would be surveyed in cooperation with the U.S. Army Corps of Engineers. The rate of land acquisition would increase within the approved boundary to complete 58 percent of the total, an average of 1,000 acres per year. There would be more effort to protect through easements or fee-title acquisition all bluffland areas identified in the 1987 Master Plan, and an increase in oversight and administration of Research Natural Areas. The Refuge would be nominated as a Wetland of International Importance (Ramsar). Guiding principles for habitat projects would be established and would stress an integrated approach.



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There would be an increase in effort to achieve continuous improvement in the quality of water flowing through the Refuge, including decreasing sedimentation. Pool-scale drawdowns would be accomplished by working with the Corps of Engineers and the states. The control of invasive plant species would increase, and there would be increased emphasis on the control of invasive animals. Environmental Pool Plans would be implemented on a strategic and opportunistic basis using the Environmental Management Program or other programs and funding sources. Wildlife inventory and monitoring would increase and include more species groups beyond the current focus of waterfowl, colonial nesting birds, eagles, sensitive marsh birds, frogs and toads, and aquatic invertebrates/vegetation. The management of threatened and endangered species, including state-listed species, would focus on helping population recovery, not just protection. The furbearer trapping program would continue but be brought into compliance with policies by doing a new plan. The Refuge would become much more active in fishery and mussel management, and provide more input to the states on commercial fishing. Knowledge of turtle ecology through research would increase, as would turtle conservation efforts in cooperation with the states and Corps of Engineers. A forest inventory on the Refuge would be completed in cooperation with the Corps of Engineers, and a forest management plan prepared, leading to more active forest management. The 5,700 acres of grassland habitat on the Refuge would be maintained and enhanced using fire and other tools, and the Refuge would look at increasing grassland areas where appropriate due to its importance to grassland birds and other species.

There would be a continuation of hunting and fishing opportunities on a large percentage of the Refuge. The system of waterfowl hunting closed areas would change with some eliminated, some reduced in size, and several new areas added for a total of 19 closed areas and three sanctuaries. The public would be asked to practice Voluntary Avoidance in all closed areas from October 15 to the end of the respective state duck hunting season, and no motorized watercraft would be permitted in seven small closed areas during the same time period. The firing line issue north of the closed area in

Lake Onalaska (Gibbs Lake area) would be addressed by completing a management plan in collaboration with a group of waterfowl hunters and the State of Wisconsin. There would be no new shotshell possession limit or spacing requirement between parties for waterfowl hunters, and the 200-yard hunting party spacing for the Illinois side of the Refuge in Pools 12-14 would remain in place. There would be a provision for no open water waterfowl hunting in the Minnesota and Wisconsin portions of the Refuge. Permanent blinds for waterfowl hunting would be eliminated Refuge wide, including those used in the Potter's Marsh and Blanding Landing managed hunts in the Savanna District. The Potter's Marsh managed hunt would continue with administrative changes to promote fairness and efficiency. The Blanding Landing managed hunt would be eliminated, but the area would remain open to hunting. General fishing would continue to be promoted, and the Refuge would provide some oversight on fishing tournaments in collaboration with the states and other agencies.

There would be an increase in facilities and programming for wildlife observation, photography, interpretation and environmental education. There would be a modest increase in Refuge access through new facilities and improvement of existing boat ramps, pull offs, and overlooks. There would be no launch fee on Refuge-operated boat ramps. New standards for the commercial fish floats or piers below locks and dams 6, 7, 8, and 9 would be developed and implemented, and any floats phased out for noncompliance may be replaced based on a review of new proposals. A consistent process for issuing permits for commercial guiding on the Refuge would be implemented in cooperation with the states. Areas open to beach-related public use (camping, swimming, picnicking, social gatherings) would remain the same, although some new or modified regulations would be adopted. A beach management and maintenance policy would be established and the Refuge would work with the Corps of Engineers, states and the public to complete beach management plans for each river pool. The Refuge would explore a user fee to help defray costs of managing beach-related uses, although none is planned at this time. Any new fee proposals would be developed in coordination with other agencies and the public. A total of six Electric Motor Areas (1,947 acres) and eight Slow, No Wake Areas (10,569 acres) would be established, along with 13 new slow, no-wake zones. Current regulations on the use of dogs would be changed to allow dogs to be exercised under certain conditions. General public use regulations would be reviewed annually and changed as needed, and the Refuge would complete a step-down Law Enforcement Plan in coordination with the states and Corps of Engineers.

New offices and maintenance shops would be constructed at the Winona, La Crosse, and McGregor districts, and at the Lost Mound Unit. The office would be expanded at the Savanna District and a new shop constructed. Public information and awareness efforts would be increased 50 percent. Staffing levels for the Refuge would increase by 23.5 full-time equivalents over a 15-year period with a balance among biological, maintenance, visitor services, law enforcement, technical, and administrative staff.

Goal 1: Landscape. We will strive to maintain and improve the scenic qualities and wild character of the Upper Mississippi River NW&FR.

Objective 1.1.

Maintain the integrity of the Refuge boundary. In coordination and cooperation with the Corps of Engineers, identify, survey, and post all boundary lines where threat of encroachment is greatest by 2020.

Rationale: Maintaining and enforcing a boundary is one of the basic and critical components of Refuge management to ensure the integrity of an area over time. Without attention to this basic task, there is a tendency for adjacent development and use to creep and take over Refuge lands and waters. This encroachment includes tree cutting, dumping, construction, storing of equipment and materials, and mowing Refuge lands. In addition, there are a few boundaries between Refuge and Corps-managed lands that remain unclear, leading to mixed messages to the public using these lands via

permits, leases, or out grants. The size, length, age, and floodplain setting of the Refuge, coupled with a mix of Corps-acquired and Service-acquired lands, creates boundary clarity problems that can only be addressed through modern re-surveying techniques. This objective also focuses on problem areas versus the entire boundary proposed in other alternatives to reflect the realities of survey time and costs.

Strategies

- Conduct an annual review of the posted Refuge boundary to detect and address any encroachment incidents, and coordinate enforcement with the Corps and states as appropriate.
- In collaboration with the Corps of Engineers, identify and prioritize boundary areas most in need of clarification by surveying and reposting.
- Seek joint Corps and Service funding to complete needed surveys based on priorities.
- In collaboration with the Corps of Engineers and the states, and with appropriate public involvement, review, update, and publish a new Land Use Allocation Plan for lands within the Refuge (see Chapter 1, section 1.4.3.1 of the Draft EIS/CCP for discussion of this plan).

Objective 1.2.

Land Acquisition By 2020, acquire from willing sellers 58 percent of the lands identified for acquisition in the 1987 Master Plan and subsequent approvals, as identified on the maps in Appendix G of the Draft EIS/CCP (approximately 1,000 acres/year).

Rationale: Land acquisition is a critical component of fish and wildlife conservation since it permanently protects their basic need of habitat. It is also a cornerstone of promoting wildlife-dependent recreation by providing lands and waters open to all. On a narrow, linear refuge, land acquisition is a critical component of restoring habitat connectivity needed for the health of many species. The Refuge currently ranks sixth nationally on the Service's Land Acquisition Priority System due to its resource importance. Land acquisition can also be cost effective in the long-term due to inflation of land costs and the costs of acquiring undeveloped land versus developed land that also needs restoration. This objective represents an aggressive land acquisition program of about 1,000 acres per year to achieve goals set in the 1987 Master Plan and other approved acquisition documents. Lands with the highest fish and wildlife values were coded "A" in the 1987 Master Plan, and this ranking system remains a useful prioritization tool. However, public use values would also be considered when setting priorities between available tracts in keeping with the balanced approach of this alternative.

Strategies

- Seek consistent Land and Water Conservation Fund appropriations to meet the objective (approximately \$1.5 million per year at \$1,500 per acre).
- Explore land exchanges with the states to remove intermingled ownerships.
- Continue to work with the Department of the Army to transfer title of tracts as they are cleaned of contaminants at the Lost Mound Unit (former Savanna Army Depot).

Objective 1.3.

Bluffland Protection. By 2020, acquire from willing sellers protective easements or fee-title interest in all undeveloped bluffland areas within the approved boundary of the Refuge as identified in the 1987 Master Plan. (See maps in Appendix G of the full Draft EIS/CCP)

Rationale: There have been no acquisitions of bluffland areas since first identified in the 1987 Master Plan, and this objective represents a more aggressive approach to safeguarding the wildlife values of these areas. In recent years, Peregrines have once again started nesting on the rock faces of some bluffs. Peregrines, at one time an endangered species, were the main rationale for including the 13 areas in the acquisition boundary. Blufflands are also an important part of maintaining the scenic quality of the Refuge landscape and harbor unique and diverse plants and animals. Since some areas identified have been developed for housing or other uses since 1987, the focus would be on the undeveloped areas. However, there may be an opportunity to protect remaining values of these developed areas through creative easements. Fee or easement acquisition authority was granted by Regional Director approval of the 1987 Master Plan and is in addition to original acquisition authority in the 1924 act creating the Refuge and authorizing acquisition of lands subject to overflow.

Strategies

- Seek consistent acquisition funding as noted in Objective 1.2 and use a blend of easements and fee-title acquisition that best meets landowner's desire and balances wildlife and public use objectives.
- Work with the state, local governments, and private land trusts to protect bluffland habitat and scenic values.
- Work with local units of government to encourage zoning regulations that protect bluffland scenic qualities.
- Educate the public on the values of blufflands for birds and unique plant communities.

Objective 1.4.

Research Natural Areas and Special Designations. By 2010, complete a management plan for each of the Refuge's four federally-designated Research Natural Areas. No new Natural Areas would be established. (In the full Draft EIS/CCP, see maps in Appendix P and Table 7 on page 180.) Also by 2008, facilitate preparation of a nomination package for designating the Refuge a "Wetland of International Importance" in accordance with the Ramsar Convention.

Rationale: The Refuge has done little in the way of monitoring or research on the existing Research Natural Areas. Although the main goal of the area designation is the preservation of unique floodplain forest areas, preservation is a form of management. No management plans have been written to guide monitoring and research of current habitat conditions and changes since the areas were designated in the 1970s. Completing a management plan for each area would identify monitoring protocols, any habitat management needed to retain original biological values or address threats, address any special public use considerations, and identify ways to foster public awareness and appreciation of these unique areas. No areas of the Refuge are deemed suitable for new Natural Area designation.

Designating the Refuge a Wetland of International Importance would raise its stature in line with previously designated national wildlife refuges including Horicon National Wildlife Refuge in Wisconsin and Sand Lake

National Wildlife Refuge in South Dakota. Designation would recognize the Refuge's international importance to migratory birds, as well as its uniqueness in balancing a variety of commercial, cultural, and recreational values, values supported in the 115-nation treaty stemming from the Ramsar Convention and reflected in this integrated alternative. Designation would also foster the sharing of scientific information and elevate management attention when facing future needs and challenges. Designation does not relinquish sovereignty or jurisdictions in any manner.

Strategies

- The District Managers will be responsible for completion of management plans for natural areas in their respective Districts, using a consistent approach and format, and in cooperation with the states and other federal agencies as appropriate (e.g. Nelson-Trevino).
- Seek cooperative research and monitoring opportunities with other agencies and colleges and universities.
- Ensure yearly review of Research Natural Area boundaries to ensure integrity of the areas.
- Work collaboratively with the Corps of Engineers, the states, non-government organizations, and the public in preparing a nomination package for Wetland of International Importance designation.

Goal 2: Environmental Health. We will strive to improve the environmental health of the Refuge by working with others.

Objective 2.1.

Water Quality. Working with others and through a more aggressive Refuge program, seek a continuous improvement in the quality of water flowing through and into the Refuge in terms of parameters measured by the Long Term Resource Monitoring Program of the Environmental Management Program (dissolved oxygen, major plant nutrients, suspended material, turbidity, sedimentation, and contaminants).

Rationale: The quality of water on the Refuge is one of the most important factors influencing fish, wildlife, and aquatic plant populations and health, which in turn influence the opportunity for public use and enjoyment. Water quality is also beyond the Refuge's ability to influence alone given the immense size of the Refuge's watershed and multiple-agency responsibilities. This objective recognizes these limitations, but charts a more aggressive role for the Refuge through the strategies below. The objective also highlights the advocacy role the Refuge can play in educating the public and supporting the myriad of agencies which together can influence water quality.

Strategies

- Hire a Private Lands Biologist or Technician for each of the Refuge's four Districts to restore and enhance wetland, upland, and riparian habitat on private lands in and along sub-watersheds feeding into the Refuge, and to broker the myriad of private land and conservation opportunities available through the Department of Agriculture and others.
- Increase conservation assistance agreements with Soil and Water Conservation Districts and Resource Conservation and Development boards.

- Begin a regular and reoccurring dialogue with U.S. Geological Survey scientists at the Upper Midwest Environmental Sciences Center, La Crosse, Wisconsin, to help devise and tune strategies specific to addressing sedimentation problems.
- Cooperate with local government land use planning efforts to ensure that water quality impacts to the Refuge are considered.
- Emphasize water quality aspects, especially sediment deposition in backwaters, in all habitat enhancement projects.
- Link planning and projects for tributary watersheds to Environmental Pool Plan implementation using the latest GIS-based mapping and modeling.
- Support cooperative water quality monitoring and improvement efforts through the Upper Mississippi River Conservation Committee and other groups and agencies.
- Continue to stress the importance of water quality in public information, interpretation and environmental education programs.

Objective 2.2.

Water Level Management. By 2020, in coordination with the Corps of Engineers and the states, complete as many pool-wide drawdowns as practicable based on ecological need, engineering feasibility, and available funding.

Rationale: Lowering the water levels in impoundments during the growing season is a proven management practice to increase emergent vegetation. Improved vegetation results in more food and cover for a wide range of fish and wildlife species, which in turn enhances opportunities for wildlife-dependent recreation. Much of the emergent vegetation on the Refuge has been lost due to stable water regimes created for navigation, and this objective seeks to restore productive marsh habitat to thousands of acres. Although drawdowns show great promise in enhancing aquatic vegetation in all pools, priorities and timing need to be tempered by ecological need, feasibility, and funding.

Strategies

- Continue to work in partnership with the Interagency Water Level Management Task Force to plan, facilitate and prioritize drawdowns.
- Inform and involve citizens through public meetings, workshops, and citizen advisory groups.
- Seek all available funding sources to carry out needed recreational access dredging to lessen social and economic impacts during drawdowns (proposals in Corps of Engineers Navigation Study released in 2004 includes funding for drawdowns).
- Explore options for funding an Access Trust Fund to ensure adequate funding for additional public access (temporary or new landings, supplemental dredging, etc.) when needed to accomplish drawdowns.

Objective 2.3.

Invasive Plants. Continue current control efforts and by 2008, complete an invasive plant inventory. By 2010, achieve a 10 percent reduction in acres affected by invasive plants such as purple loosestrife, reed canary grass, Eurasian milfoil, leafy spurge, crown vetch, Russian knapweed, knotweed, European buckthorn, garlic mustard, and Japanese bamboo. Emphasize the use of biological controls.

Rationale: Invasive plants continue to pose a major threat to native plant communities on the Refuge and beyond. Invasive plants displace native species and often have little or no food value for wildlife. The result is a decline in the carrying capacity of the Refuge for native fish, wildlife, and plants, and a resulting decline in the quality of wildlife-dependent recreation. This objective addresses invasive plants by continuing current efforts while determining and mapping baseline information so that effective and efficient long-term control can take place. Biological control includes release of insects which prey directly on purple loosestrife or leafy spurge plants or disrupt part of their life cycle, and is a more long-term and cost efficient solution compared to herbicide spraying. This objective is tempered by the realization that biological control methods are not yet readily available for a large number of invasive plant species.

Strategies

- Hire seasonal biological technicians to conduct an inventory and prepare baseline maps of invasive plant infestations.
- Write an invasive plant control and management plan (integrated pest management plan) that identifies priority areas and methods of control.
- Seek seasonal staff and funding to accelerate current control and applied research efforts through interagency partnerships, volunteer programs, and public education.
- Continue to work with the Department of Agriculture, other agencies, the states, and other refuge field stations in securing insects and beetles for release in high-infestation areas.
- Continue coordination with the Corps of Engineers on efforts to control invasive forest plants through their operations and maintenance program and other potential authorities.
- Take advantage of periodic invasive grant, cost-sharing, or special funding opportunities offered through the Service or other agencies and foundations.
- Conduct public information effort including media, brochures, signage, and programs to increase awareness of the invasives threat and what visitors can do to minimize the introduction or spread of invasives.

Objective 2.4.

Invasive Animals. Increase efforts to control invasive animals through active partnerships with the states and other Service programs and federal agencies, and increase public awareness and prevention.

Rationale: Invasive animals such as zebra mussels and Asian carp species pose a current and looming threat to native fish and mussel species and have the potential to disrupt the aquatic ecosystem. They can also have a direct link to the quality of fishing by displacing various game fish, or destroying important habitat for fish and wetland-dependent birds which people observe or hunt. This objective is not measurable, reflecting the reality that invasive animal species do not lend themselves to direct control in a large river system and that addressing invasive animals is dependent on political and management actions beyond the boundary of the Refuge. However, the objective does emphasize the importance of addressing invasive species and represents more active Refuge involvement.

Strategies

- Use the visibility and public awareness of the Refuge as a platform or “bully pulpit” to inform the public, decision-makers, and elected representatives of the seriousness of the invasive animal threat to the ecology and economy of the Upper Mississippi River System.
- Continue to seek ways to help the states implement their Aquatic Nuisance Species plans and consider and incorporate these plans in Refuge invasives efforts.
- Whenever possible, assist with implementation of the Asian Carp Working Group’s Management and Control Plan for Asian Carps in the United States (prevent, contain and control, reduce, minimize impacts, increase public information, research, and effective national coordination).
- Implement other objectives and strategies in the CCP which have an influence on invasive species work. For example, better habitat conditions promote healthy native fish populations that can compete with invasive species, while adding a fishery biologist to the staff would increase and improve coordination with other programs and agencies dealing with invasives.
- Continue to work with other agencies in developing effective regulations, barriers, biological controls, or other means to reduce introduction and spread of invasives.
- Explore new and creative ways to expand the harvest of invasive fish by commercial fishing, such as a bonus payment to enhance market price.
- Conduct public information effort including media, brochures, signage, and programs to increase awareness of the invasives threat and what visitors can do to minimize the introduction or spread of invasives.

Goal 3: Wildlife and Habitat. Our habitat management will support diverse and abundant native fish, wildlife, and plants.

Objective 3.1.

Environmental Pool Plans. By 2020, in cooperation with various agencies and states, implement at least 30 percent of the Refuge-priority Environmental Pool Plan actions and strategies in Pools 4-14 as summarized in the Draft EIS/CCP in Table 4 on page 148 (see Appendix N of the Draft EIS/CCP for examples of Environmental Pool Plan maps).

Rationale: Environmental Pool Plans represent a desired future habitat condition developed by an interagency team of resource professionals, including Refuge staff. The Pool Plans represent what is necessary to reverse the negative trends in habitat quality and quantity on the Upper Mississippi River. Improved habitat is the key to healthy fish and wildlife populations, which in turn impact the quality of wildlife-dependent recreation. Thus, this objective represents an important part of the wildlife and integrated public use focus alternative. The Refuge represents a sizeable subset of the habitat vision presented in each Pool Plan. The Refuge also has different resource mandates and responsibilities than the Corps of Engineers and the states. Thus, the Refuge prioritized various actions to meet these needs as represented in Table 4 on page 148 of the Draft EIS/CCP. The objective of 30 percent represents a reasonable rate of implementing priority actions given current funding levels (mainly through the Environmental Management Program, Corps of Engineers) for habitat conservation work, and the 15-year

horizon of this CCP versus the 50-year horizon of the Pool Plans. Some of the actions and strategies in the table overlap with other objectives in this plan (e.g. forest management, land acquisition, watershed work, and water level drawdowns).

Strategies

- Continue to coordinate with the River Resources Forum's Fish and Wildlife Workgroup, and the River Resources Coordinating Team's Fish and Wildlife Interagency Committee, to implement pool plan priorities.
- Continue to work for full and expanded funding of the Environmental Management Program through public and Congressional information and outreach.
- Continue to seek opportunities through the Corps of Engineers' Channel Maintenance Program to implement certain aspects of pool plans.
- Take advantage of any new funding sources that emerge, such as the Corps of Engineers' Navigation and Environmental Sustainability Program which could be authorized and funded by Congress.
- Complete a required Refuge Habitat Management Plan which integrates species status and trends with the Environmental Pool Plans (see related Objective 3.3).

Objective 3.2.

Guiding Principles for Habitat Management Programs. Upon approval of the CCP, adopt and use the following guiding principles when designing or providing input to design and construction of habitat enhancement projects:

- 1.) Management practices will restore or mimic natural ecosystem processes or functions to promote a diversity of habitat and minimize operations and maintenance costs. Mimicking natural processes in an altered environment often includes active management and/or structures such as drawdowns, moist soil management, prescribed fire, grazing, water control structures, dikes, etc.
- 2.) Maintenance and operation costs of projects will be weighed carefully since annual budgets for these items are not guaranteed.
- 3.) Terrestrial habitat on constructed islands and other areas needs to best fit the natural processes occurring on the river, which in many cases will allow for natural succession to occur.
- 4.) If project features in Refuge Waterfowl Hunting Closed Areas serve to attract public use during the waterfowl season, spatial and temporal restrictions of uses may be required to reduce human disturbance of wildlife.
- 5.) The esthetics of projects, in the context of visual impacts to the landscape, should be considered in project design in support of Refuge Goal 1, Landscape.

Rationale: Guiding principles for habitat restoration or enhancement projects would provide consistency between the four Districts of the Refuge and help communicate to cooperating agencies and the public standards from which we approach the design of projects. The principles will also help ensure compliance with Service policy on biological integrity and recognize the need to consider future operations and maintenance costs before doing projects. In addition, the principles help ensure that projects complement, rather than compete with, other goals and objectives in this plan.

Strategies

- Refuge staff will use these guidelines when proposing and designing habitat enhancement projects funded by the Service. They will also be used during coordination with the Corps of Engineers and the states in cooperative programs such as the Environmental Management Program or any new program authority that may arise from the Corps of Engineers' Navigation Study. In cooperative projects done on the Refuge, other agency guidelines will also be considered.

Objective 3.3.

Monitor and Investigate Fish and Wildlife Populations and Their Habitats.

By January 2008, amend the 1993 Wildlife Inventory Plan to include more species groups such as fish, reptiles, mussels, and plants, and increase the amount of applied research being done on the Refuge.

Rationale: Monitoring is essential to understanding the status and trends of selected species groups and habitats. This in turn provides some indication of overall biological integrity, diversity, and environmental health of the Refuge, and is critical in planning habitat management and public use programs. This objective represents a more aggressive biological program on the Refuge and will help meet directives in the Refuge Improvement Act requiring monitoring the status of fish, wildlife, and plant species. Better biological information is also critical to making sound and integrated resource and public use management decisions. The Refuge would continue to support and use monitoring done by the states, U.S. Geological Survey, the Corps of Engineers, and others to help fill the gaps in status and trends information for fish, mussels, reptiles, forests and other land cover, and environmental factors such as water chemistry and sedimentation.

Strategies

- Engage other experts and partners to develop and implement the Wildlife Inventory Plan.
- Establish a Refuge Research Team that designs short-term and long-term research projects to address management questions and concerns about wildlife populations and their habitat.
- Continue to work with the states, U.S. Geological Survey, and Corps of Engineers in the sharing of data on other species and habitats.
- Establish a schedule of formal coordination meetings with the U.S. Geological Survey to share biological monitoring methods and data.
- Ensure that each District has a biologist on staff and that Headquarters has a GIS biologist.
- Seek more cooperation with colleges and universities to foster more graduate research projects.
- Continue to use volunteers for certain monitoring efforts such as point counts for breeding and migrating birds.

Objective 3.4.

Threatened and Endangered Species Management. By the end of 2008, begin monitoring of all federally listed threatened or endangered and candidate species on the Refuge, and by 2010, have in place management plans for each species to help ensure their recovery. Cooperate with the states in the monitoring and management of state-listed species.

Rationale: As noted in an earlier section of this chapter, it is Service policy to give priority consideration to the protection, enhancement, and recovery of

these species on national wildlife refuges. This objective represents a more aggressive approach to achieving this policy, and also reflects the high public interest in threatened and endangered species. Currently, the only species actively monitored by the Refuge are Bald Eagles, and efforts would be expanded to include the Higgins eye pearl mussel, eastern massasauga rattlesnake, and Sheepsnose mussel. Strategies below also recognize the importance of considering state-listed species in monitoring and management activities.

Strategies

- Consider the needs of Federal and state-listed threatened, endangered and candidate species, as applicable, in all habitat and public use management decisions.
- Continue to consult with the Service's Ecological Services Offices on all actions which may affect listed species, and coordinate with the states on actions that may affect state-listed species.
- In the Wildlife Inventory Plan, address a monitoring plan for all listed or candidate species, state-listed species, and other species of management concern to help detect serious problems early and to preclude listing.
- Continue monitoring Bald Eagle nesting populations and success.
- In the Habitat Management Plan, identify steps needed to ensure populations of listed or candidate species are sustained in support of delisting or to preclude listing in the future.
- In step-down plans, ensure consideration of state-listed species.
- Give priority to acquisition of lands within the approved boundary that contain listed or candidate species.
- Continue assistance to other offices and agencies with Higgins eye pearl mussel recovery efforts.
- Increase education and outreach specifically targeting threatened and endangered species found on the Refuge.

Objective 3.5.

Furbearer Trapping. Update the Refuge trapping plan by June 2007, continuing the existing trapping program until the update is completed and ready for implementation.

Rationale: Furbearer trapping has a long history on the Refuge and can be an important management tool in reducing furbearer disease and habitat impacts, and in safeguarding certain Refuge infrastructure such as dikes, islands, and water control structures. Trapping is also important from a recreational and cultural standpoint, providing hundreds of trappers thousands of hours of wildlife-related and outdoor-dependent enjoyment. The current trapping plan is dated by time (1988), new furbearer ecology and population information, and by new policies governing compatibility of uses and commercial uses on national wildlife refuges.

Strategies

- Seek input from state furbearer biologists, current Refuge furbearer trappers, and trapping organizations to assess effectiveness and/or needed changes in trapping program administration and management.
- The Refuge wildlife biologists, in consultation with Refuge District managers, state furbearer biologists, and the Refuge Manager, will develop a draft trapping plan.

- Afford the public an opportunity for review and comment on a draft plan and accompanying environmental assessment and compatibility determination.
- Following public review and revision, submit a final plan to the Regional Director of the Service, Twin Cities, Minnesota, for approval (required).
- Conduct appropriate information and education effort on any changes reflected in the plan.

Objective 3.6.

Fishery and Mussel Management. By the end of 2008, complete a Fishery and Mussel Management Plan for the Refuge which incorporates current monitoring and management by the states, the Corps of Engineers, and other Service offices and agencies.

Rationale: One of the purposes of the Refuge is to provide a “refuge and breeding place for fish and other aquatic animal life.” Fish and mussels also have high intrinsic, recreational, and commercial values. For decades, the Refuge has not taken an active role in fishery or mussel management, deferring to the states or others on this management responsibility. Although the states will still play the lead role in fisheries and mussel management, the Refuge should have in place a plan which communicates to the states and the public the Refuge and Service perspective on fishery and mussel management issues and needs, and to help set common goals, objectives, and means of collecting and sharing information. The plan would also help guide conservation efforts for rare or declining interjurisdictional species such as paddlefish and sturgeon and federally listed and candidate aquatic species, and address the Refuge’s role in commercial harvest of species and control of aquatic invasive species. Healthy fishery and mussel populations also benefit the public’s use and enjoyment of these resources.

Strategies

- Add a fishery biologist to the Headquarters staff to coordinate fishery and mussel management on the Refuge.
- Take an active role in Upper Mississippi River Conservation Committee fisheries technical section and mussel ad hoc committee.
- Prepare plan in collaboration with the states, Service fishery offices, the Genoa National Fish Hatchery, and aquatic biologists of the U.S. Geological Survey.

Objective 3.7.

Commercial Fishing and Clamming. By the end of 2008, complete a Fishery and Mussel Management Plan, and by January 2009, have a mechanism or agreements in place to ensure that Refuge System permit requirements are incorporated in state-issued permits.

Rationale: The Refuge has provided little to no oversight of the commercial harvest of fish or mussels in the past. However, federal regulations governing the Refuge System state that “fishery resources of commercial importance on wildlife refuge areas may be taken under permit in accordance with federal and state law and regulations” (50 Code of Federal Regulations, Part 31.13). Other regulations govern all commercial uses on refuges. Besides this compliance issue, the Refuge can play an important advisory and coordination role with the four states which administer commercial fish and mussel harvest on the Refuge. A Fishery and Mussel Management Plan is needed before any Refuge-specific stipulations for consideration and use in state permits could be crafted.

Strategies

- In addition to the strategies in Objective 3.6, establish, with the states through the Upper Mississippi River Conservation Committee, a method of sharing permittee and catch information for the Refuge.
- Devise a Refuge permitting process that dovetails with state permits so that commercial users need only one permit or license versus two.
- Enter into cooperative agreements as needed to implement this one-stop-shopping permit process.
- Ensure that commercial harvest of fish and mussels meets objectives in Refuge plans, and explore ways that commercial harvest can help address invasive species issues (Objective 2.4).
- Ensure consistency with state regulations whenever possible. For instance, the Refuge would not issue permits for mussel or fish harvest in areas not opened by the states.

Objective 3.8.

Turtle Management. By spring 2007, initiate a 3- to 5-year turtle ecology study on representative habitats of the entire Refuge. Continue to cooperate with the states and the Corps of Engineers in monitoring turtle populations on certain Refuge areas.

Rationale: Recent surveys in the Weaver Bottoms area of Pool 5 indicate that this area of the Refuge is an important, and perhaps critical, area for eight species of turtles, some of which are listed by the states as threatened or endangered. Surveys on other Pools of the Refuge show that 11 species are present. There are numerous potential negative and positive impacts to turtles from public use and navigation channel maintenance activities on the Refuge. However, more rigorous monitoring and research is needed over a broad area to understand turtle populations and ecology to guide a coordinated approach to their conservation, and to guide management decisions concerning public uses in or on important turtle habitats. A comprehensive study would provide this information.

Strategies

- In cooperation with the U.S. Geological Survey, seek special funding and grants to fund the turtle ecology study.
- Continue to coordinate with the Corps of Engineers and the states on ways to minimize turtle nesting disturbance on dredge material placement sites located on the Refuge.
- Through the Upper Mississippi River Conservation Committee, devise a method of sharing more detailed commercial turtle harvest information for the Refuge.
- Upon completion of the turtle ecology study, complete a turtle management strategy and incorporate recommendations in habitat, commercial use, and public use management activities.
- Conduct public information effort including media, brochures, signage, and programs to increase awareness and appreciation of turtles and communicate what visitors can do to minimize impacts on beach areas used for nesting.

Objective 3.9.

Forest Management. Complete by the end of 2008, in cooperation with the Corps of Engineers, a forest inventory of the Refuge, and by 2010, complete a Forest Management Plan for the Refuge.

Rationale: A baseline forest inventory of the approximately 51,000 acres of floodplain forest on the Refuge is the first step in addressing concerns for the long-term health of this important resource. The Corps has been actively working on a forest inventory for several years on Corps-acquired lands, and it makes fiscal and efficiency sense to partner with the Corps on Service-acquired lands on this objective. A Forest Management Plan is needed to integrate forest and wildlife objectives, and to identify management prescriptions such as harvest, planting, fire, and invasives control. Collaboration with the Corps of Engineers is essential to meet the forest habitat needs of wildlife since the Corps retained forest management authority on Corps-acquired lands that are part of the Refuge. Healthy forests also benefit the diversity and quality of public uses on the Refuge.

Strategies

- Support a balanced forest management approach that provides adequate habitat for cavity nesting game and non-game species, and ensures retention of a closed canopy for forest birds of management concern such as Red-shouldered Hawks and Cerulean Warblers.
- As Refuge funding allows, continue to fund seasonal technicians to help with the Corps' inventory project on Service-acquired lands. Seek ways to leverage funds through partners or grants for long-term forestry technicians.
- Continue to work with the Corps and other partners on forest rejuvenation and research projects.
- Continue small scale reforestation, especially mast-producing hardwoods, on suitable Refuge lands.
- Add a Refuge Forester to the Headquarters staff to oversee Forest Management Plan preparation and implementation, and to coordinate with the Corps of Engineers and the states on forest management issues and opportunities.

Objective 3.10.

Grassland Management. Maintain 5,700 acres of grassland habitat on the Refuge through the use of various management tools including prescribed fire, haying, grazing, and control of invasive plants, and by 2008, address grassland conservation and enhancement in a step-down Habitat Management Plan.

Rationale: Many species of wildlife, particularly birds, are dependent on grassland habitat. In addition, some of these grasslands are remnant tallgrass native prairie, a diverse and rare ecosystem throughout the Midwest and home to rare or declining plant and animal species. Active management is needed to curb loss of grasslands to forest succession or invasive species, and to maintain species diversity and health. Healthy grasslands benefit a variety of public uses including wildlife observation, plant study, photography, and hunting.

Strategies

- When completing the Habitat Management Plan, look at feasibility of increasing grassland areas on the Refuge due to its importance to grassland nesting birds and other wildlife.
- Implement the Refuge's Fire Management Plan.

- Use haying, rotational grazing, and control of invasive plants as appropriate to maintain grasslands. Restore aspects of native prairie where feasible using a combination of rest, fire, farming, and reseeding as appropriate to the site.
- Increase monitoring to measure effectiveness of treatments.

Goal 4: Wildlife-Dependent Recreation. We will manage programs and facilities to ensure abundant and sustainable hunting, fishing, wildlife observation, wildlife photography, interpretation, and environmental education opportunities for a broad cross-section of the public.

Objective 4.1.

General Hunting. Maintain a minimum of 189,884 acres (79.2 percent) of land and water of the Refuge open to all hunting in accordance with respective state seasons, and add three new administrative No Hunting Zones for a total of 3,973 acres. See related Objective 4.2 on Waterfowl Closed Areas. (See Table S-2 and Table S-3 and maps in Executive Summary of Alternative E.)

Rationale: Maintaining a large percentage of the Refuge open to hunting is in keeping with guidance in the Refuge Improvement Act to facilitate wildlife-dependent use when compatible. This objective also represents an integrated wildlife and public use emphasis by more strategic placement of Waterfowl Closed Areas in the related Objective 4.2, to both protect migrating waterfowl and offer a better distribution of waterfowl hunting opportunities. These Closed Areas reopen to some hunting after the duck season, adding to the open acreage above. The three new No Hunting Zones are for safety reasons or to minimize conflict between user groups. One is at Sturgeon Slough, Pool 10 (66 acres), which contains a fairly new hiking trail off a major highway, another is at Crooked Slough proper, Pool 13 (192 acres) to avoid conflicts and address safety concerns in a relatively narrow corridor popular with anglers, and the third is around the Goetz Island Trail, Pool 11 (242 acres) which connects to a trail in the City of Guttenberg, already a no hunting area by city ordinance. The decision to drop three proposed No Hunting Zones in this alternative was based on public and agency comment, evaluation of expected use patterns, prediction of low user-group conflict, or deletion of a proposed hiking trail. The No Hunting Zones in Alternative D dropped in this alternative were Dairyland Power Trail and Kain Switch Trail (Pool 9) and Turkey River Delta Trail (Pool 11). Total acreage of No Hunting Zone areas decreased from 5,322 acres in Alternative D to 3,973 acres in Alternative E.

Strategies

- Continue yearly review of Refuge Hunting Regulations to ensure clarity and to address any emerging issues or concerns, and give the public an opportunity to review and comment on any changes.
- To minimize potential conflicts between user groups, no hunting should occur on the Refuge from March 16 to August 31 of each year, except for spring Wild Turkey hunting and, on the Illinois portion of Refuge, squirrel hunting. The Refuge will address this change in future updates to the Refuge Hunting Plan.
- Continue to publish the Refuge Hunting Regulations brochure to inform the public of hunting opportunities and Refuge-specific regulations.
- Continue to improve the hunting experience by ongoing improvements to habitat and enforcement of regulations.

- Review the 1989 Refuge Hunting Plan and modify as needed by January 2007 to comply with new regulations and policies.
- Clearly sign areas closed to hunting and ensure public notification through news releases and other means well before the hunting seasons. Do the same for hiking trails that remain open to hunting.

Objective 4.2.

Waterfowl Hunting Closed Areas. In fall 2007, implement the following changes to the current Waterfowl Closed Area system on the Refuge (see Tables S-2 and Table S-3 in this supplement and maps in the Executive Summary):

- 1.) Add six new Closed Areas and delete or modify some of the current 15, for a total of 22 areas totaling 45,755 acres, or 1,260 acres more than current area (see Table S-2 and Table S-3 in this supplement and maps in the Executive Summary, and new Supplement Appendix A on the website describing background and change rationale for each Closed Area).
- 2.) The following areas would be closed to all entry and use from October 1 to the end of the respective state regular duck season (sanctuary status, 5,300 acres total):
 - a) Pool Slough Sanctuary (McGregor District, Pool 9, Iowa/Minnesota, 1,112 acres)
 - b) Guttenberg Ponds portion of the 12 Mile Slough Sanctuary (McGregor District, Pool 11, Iowa, 502 acres)
 - c) Spring Lake Sanctuary (Savanna District, Pool 13, Illinois, existing sanctuary, 3,686 acres)
- 3.) Use regulations or guidelines for Closed Areas would be as follows: The public will be asked to practice Voluntary Avoidance (limiting entry) on all closed areas October 15 to the end of the respective state duck hunting season. In addition, there will be a “no motor” restriction on small closed areas October 15 to the end of the regular state duck hunting season. Large closed areas are greater than 1,000 acres and small closed areas are ~1,000 acres or less. “No motors” means the use of motors on watercraft is not allowed, although possession of motors is allowed. Exceptions are:
 - a) The existing Lake Onalaska Closed Area. Pool 7, Wisconsin, and associated Voluntary Waterfowl Avoidance Area would not be affected, although boundary adjustments would be made to the Closed Area as shown on the map for Pool 7.
 - b) The existing Bertom/McCartney Closed Area, Pool 11, Wisconsin, retains current entry and use regulations (no change).
- 4.) Implement the following policy for more restrictive use regulations: The Refuge will monitor human disturbance in closed areas, and if disturbance exceeds a threshold, the Refuge will, in coordination with other agencies, move to implement more restrictive regulations such as no motors, no fishing or no entry on an individual closed area basis. Human disturbance monitoring and research on Pools 7 and 8 suggests a reasonable threshold of one major disturbance per day based on a season-long average. A major disturbance is defined as a human intrusion which displaces 1,000 waterfowl or 50 percent of the waterfowl present, whichever is less. The disturbance threshold would not include

commercial fishing (handled through permitting process) or government entities engaged in monitoring, research, or law enforcement.

- 5.) Implement the following policy for approving fish habitat improvements in closed areas through EMP or other programs: Project proposals will be evaluated on a case-by-case basis considering factors which influence human intrusion and waterfowl disturbance such as size of area, boundary configurations, visual barriers, species and numbers of waterfowl, public access points, public use patterns, and proximity to population centers and other recreation facilities. Evaluations will be conducted in collaboration with the states and Corps of Engineers.

Rationale: This objective represents a balanced approach between the needs of waterfowl and the public as reflected in the following overall Closed Area system goals:

- 1.) Provide migrating waterfowl a more balanced and effective network of feeding and resting areas.
- 2.) Minimize disturbance to feeding and resting waterfowl in closed areas.
- 3.) Provide waterfowl hunters with more equitable hunting opportunities over the length of the Refuge.
- 4.) Reduce hunter competition and waterfowl crippling loss along some closed area boundaries.
- 5.) Stabilize boundaries where island and/or shoreline loss or gain creates a fluctuating boundary.

This objective also helps address the issues surrounding Closed Areas as discussed in Chapter 1, Section 1.4.5.4 on page 23 of the Draft EIS/CCP, and analyzed in Chapter 3, Section 3.2.7 on page 186 of that document. The five new Closed Areas were chosen to fill gaps between existing Closed Areas, to meet the needs of both dabbling and diving ducks which have different spatial and foraging needs, and to provide areas with the best food potential. An analysis of the potential carrying capacity of existing and proposed alternative Closed Areas was completed in 2004 and shows that Alternative D would provide a 16 percent increase in total energy available to waterfowl in the Closed Area system. Since Alternative E is a fine-tuning of Alternative D and core areas changed little, a similar increase in total energy available is expected. (The carrying capacity report is available at Refuge headquarters or on the Refuge planning web site: <http://midwest.fws.gov/planning/uppermiss>).

The Closed Area locations and configurations in this alternative also took into account the need for public access and travel routes, commercial navigation, adjacent business and community needs and practicalities, likelihood of near-term habitat improvements in existing Closed Areas, and the desire to continue to provide viable waterfowl hunting opportunities.

Entry and use regulation and guideline changes from Alternative D reflect consideration of public and agency comments received during the first comment period. Relatively large and small closed areas were treated differently since they generally cater to different waterfowl species groups (divers versus dabblers), differ in carrying capacity of birds, and reflect differences in effects of human entry due to size of area and the natural visual or noise barriers present. Human entry in a small closed area will often disturb nearly all the birds present, forcing them to other parts of the Refuge or beyond. Human entry in large closed areas may be variable, from little to

no disturbance based on where birds are located, to moving some birds to other portions of the closed area, to moving virtually all birds present from the closed area. Moving the effective date from October 1 in Alternative D to October 15 in Alternative E for these entry and use regulations reflects public concern about the loss of fall fishing opportunities and survey data which shows that the major influx of waterfowl occurs after October 15 each year.

The new policy on setting a threshold of disturbance to guide future entry and use regulation decisions was based on state and public comments. However, given the food and rest needs of waterfowl on migration, it is recognized that no human disturbance is optimum. Thus, the disturbance rate of one major disturbance per day is not intended to represent a purely biologically-accepted threshold of disturbance, but a balance between the needs of waterfowl and the realities of a large open river system, various authorities, different user groups, abundant access points, and the level of surrounding development.

No change was made in entry regulations for the Lake Onalaska closed area to provide a benchmark for measuring long-term voluntary avoidance effectiveness and compliance as presented in the existing Lake Onalaska Voluntary Avoidance Area. The exception also recognizes the unique location of the Lake Onalaska closed area amidst heavy shoreline development and the resulting heavy watercraft use needs and patterns by adjacent property owners and nearby population centers. The Bertom/McCartney exception recognizes use patterns resulting from the existing boat landing in the heart of the area and existing fall fishing levels fostered by an earlier Environmental Management Program habitat project.

Finally, the policy on evaluating proposed fish habitat improvements in closed areas recognizes the need to address unintended conflicts that may arise when trying to meet different objectives for fish and waterfowl in the same area. Fall fishing has been shown to be a major disturbance to waterfowl in some closed areas. Certain fish habitat improvements which attract and hold fish can increase angler use and waterfowl disturbance, and on small closed areas especially, have the potential to negate any waterfowl migration benefits. Careful consideration of these dynamics is needed when planning habitat projects.

Strategies

- Continue to improve habitat in all Closed Areas by ongoing programs such as pool-wide drawdowns, Environmental Management Program projects, and other agency initiatives and regulations.
- Continue to monitor waterfowl use of Closed Areas through weekly aerial surveys in the fall and adjust closed areas as needed in a more adaptive manner and with full agency and public involvement.
- Monitor the frequency and effect of disturbance by the public in line with the disturbance threshold policy.
- Conduct a comprehensive public information campaign to inform waterfowl hunters and the general public of impending changes. Use all methods available including personal contact, presentations at organizations, special meetings, leaflets, maps, signing, news releases, websites, and media interviews.

- Develop new signs for the differing regulations/guidelines for large and small closed areas and post boundaries of new or modified closed areas well in advance of the waterfowl hunting season to help with public awareness.
- Increase law enforcement presence to help ensure understanding and compliance with changes, relying on verbal and/or written warnings, at an officer's discretion, the first year of implementation in 2007.

Objective 4.3

Waterfowl Hunting Regulation Changes. In fall 2007, implement the following Refuge-specific waterfowl hunting regulation change: Open-water waterfowl hunting is prohibited Refuge-wide in Minnesota and Wisconsin waters in accordance with open-water hunting regulations used in the respective states. No change to other existing waterfowl hunting regulations. (See Appendix I of the Draft EIS/CCP for current Refuge regulations). A summary of the respective states' regulations are:

Minnesota – May not take migratory waterfowl, coots, or rails in open water unless the person is: a) within a natural growth of vegetation sufficient to partially conceal the person or boat, or b) pursuing or shooting wounded birds, or c) on a river or stream that is not more than 100 yards in width

Wisconsin – No person may hunt waterfowl in open water from, or with the aid of, any blind including any boat, canoe, raft, contrivance, or similar device. Open water is defined as any water beyond a natural growth of vegetation rooted to the bottom and extending above the water surface of such height as to offer whole or partial concealment to the hunter. Dead stumps and dead trees in the water do not constitute a natural growth of vegetation.

Rationale: The prohibition of open-water hunting is to limit disturbance throughout the Minnesota-Wisconsin border waters, particularly in areas that have become important feeding and loafing sites for hundreds of thousands of Canvasback and Lesser Scaup ducks, two species of management concern due to relatively small or declining populations. In Pool 9, the Refuge prohibition is additional insurance for safeguarding waterfowl use of the area into the future since Wisconsin regulations currently prohibit open water hunting. In Pool 11, open water hunting is allowed through a special exemption to the Wisconsin regulations. In the 1980s, the area was an important staging and feeding area for diving ducks, primarily Lesser Scaup, which fed on abundant fingernail clams. When the fingernail clam population collapsed, waterfowl use virtually ceased. In recent years, wild celery has become partially re-established and the area is attracting increased numbers of Canvasback and other diving ducks. This area provides the only major staging and feeding area for divers between Pool 9 and Pool 13, a distance of 125 river miles. The open water prohibition would be pre-emptive since virtually no open water hunting (scull boats) is happening at this time, but is likely as habitat improves and birds increase. The change in Alternative E to Refuge-wide in Minnesota and Wisconsin versus Pools 9 and 11 in Alternative D is proposed to simplify the regulation and match existing state regulations covering most of the Refuge in these states.

The proposed shotshell possession limits and hunting party spacing requirement in Alternative D were dropped in Alternative E based on input from a majority of waterfowl hunters providing comment, issues with enforcement and compliance, and desire of Illinois waterfowlers to retain the 200-yard spacing requirement in Pools 12-14. In lieu of specific regulation, the strategies below have been modified to reflect the continuing need for

information and education to help reduce hunter crowding, skybusting (shooting at birds out of range) and resulting crippling loss, conflicts between parties, and litter in the form of spent shells.

Strategies

- Conduct a comprehensive public information campaign to inform waterfowl hunters and the general public of impending regulation change. Use all methods available including personal contact, presentations at organizations, special meetings, leaflets, signing, news releases, websites, and media interviews.
- In cooperation with waterfowl hunters and conservation organizations, develop a hunter information and education campaign starting in fall 2006 to address the issues of crowding, conflicts, skybusting and bird retrieval, and spent shell litter to maintain the quality and important traditions of waterfowl hunting on the Refuge.
- Maintain or improve habitat in Pools 9 and 11 through ongoing programs such as pool drawdowns, habitat enhancement projects, and other agency initiatives and regulations.
- Continue to monitor waterfowl use of these areas through weekly aerial surveys in the fall.

Objective 4.4.

Firing Line – Pool 7, Lake Onalaska. By July 1, 2006, in cooperation with local waterfowlers and state managers and conservation officers, complete a step-down plan for the Gibbs Lake area of Pool 7 (see map in Executive Summary of Alternative E). The plan should strive to address the following goals:

- 1.) Reduce competition and conflict in securing preferred hunting sites.
- 2.) Reduce pre-emptive use of choice hunting sites.
- 3.) Reduce crowding.
- 4.) Reduce skybusting and resulting crippling or loss of downed birds.
- 5.) Improve the quality of the waterfowling experience.
- 6.) Be fair, simple, and efficient to administer and manage.

Rationale: A primary purpose of the Refuge's Closed Area System is to disperse waterfowl hunting opportunity. Hunters tend to congregate near concentrations of waterfowl. However, some sections of closed area boundaries, particularly those that bisect emergent marsh at the upriver end of the Lake Onalaska Closed Area, can attract large concentrations of hunters as they wait for waterfowl to leave closed areas. Pass shooting is the technique most often used along the Barrel Blinds firing line. Unfortunately, "skybusting," or shooting at birds out of range, often results in increased crippling loss. For example, during the 1991-93 seasons, officers observed that 63 of 141 hunting parties (44.7 percent) along firing lines in Pool 7 skybusted at least once during the time they were observed. Skybusting was defined as shooting at waterfowl at distances of 50 yards or more. The number of shots required to retrieve one bird was 11. During the 1992 hunting season, these same observers working Pool 7 firing lines and other areas found that hunters who did not skybust had a crippling loss rate of about 27 percent for the ducks or coots they downed. The crippling loss rate for ducks and coots downed through skybusting increased to nearly 57 percent.

Hunter behavior can also deteriorate in crowded, competitive situations. Behavior observed or reported along the Barrel Blinds area includes people claiming preferred sites (spending the night, leaving illuminated lights in unattended sites, handing-off sites to friends or co-workers after a party's hunt is over), engaging in verbal confrontations, late arriving hunters disrupting those set-up, flaring birds before they can work decoy sets, failure to retrieve birds, and increased littering.

Guidance in the Refuge Manual helps set the standard for hunting on refuges:

“Refuge hunting programs should be planned, supervised, conducted, and evaluated to promote positive hunting values and hunter ethics such as fair chase and sportsmanship. In general, hunting on refuges should be superior to that available on other public or private lands and should provide participants with reasonable harvest opportunities, uncrowded conditions, fewer conflicts between hunters, relatively undisturbed wildlife, and limited interference from or dependence on mechanized aspects of the sport. This may require zoning the hunt unit and limiting the number of participants.”

The Refuge looked at several options for improving the hunting experience in the Gibbs Lake area. These options included limiting the number of hunters pool-wide, setting minimum distances between hunters, more education, limiting the number of shotshells, more intense enforcement, and modifying the closed area boundary. These options all had shortcomings in this particular area compared to a managed hunt program. However, based on concerns with Alternative D (managed hunt), it was deemed appropriate to re-engage waterfowl hunters in trying to address their concerns while at the same time meeting the Refuge's goals for the Gibbs Lake area.

Strategies

- Assemble a diverse group of 5-10 waterfowl hunters familiar with the Gibbs Lake Area, Wisconsin DNR biologists/managers and conservation officers, and Refuge staff to help devise a Gibbs Lake Waterfowl Hunting Management Plan that meets the goals above.
- Ensure public review and comment on any draft plan resulting from the group's efforts.
- Conduct a comprehensive public information and education effort to inform waterfowl hunters of any changes resulting from the planning effort. Use personal contact, presentations, special meetings, leaflets, signing, news releases, websites and media interviews as applicable.

Objective 4.5.

Permanent Hunting Blinds on Savanna District. Phase-out the use of permanent hunting blinds for waterfowl hunting within the Savanna District of the Refuge. Permanent blinds will no longer be allowed on the Refuge in Pool 12 after the 2006-07 season, Pool 13 after the 2007-08 season, and Pool 14 after the 2008-09 season.

Rationale: Eliminating permanent blinds would provide consistency on the Refuge since they are not allowed on the other three Districts. In addition to consistency, eliminating the blinds would address a host of issues involving debris, private exclusive use of public waters, limiting hunting opportunities, and confrontations and other incidents. These issues were discussed more fully in Chapter 1, Section 1.4.5.4., of the Draft EIS/CCP. This objective

would also reduce the staff time spent on law enforcement, complaints, and clean-up that permanent blinds entail, time that could be directed toward more wildlife-related needs, and in line with the wildlife aspect of this alternative. By using a phased approach, the objective takes into consideration the long-standing tradition of permanent blind hunting and gives hunters more time to transition to alternative hunting methods and areas. The elimination of permanent blinds also opens the Refuge to a broader cross-section of hunters, and will help reduce conflict that has arisen between hunting parties, and limits the private, exclusive use of public waters and lands.

Strategies

- Conduct a public information campaign to inform the public of the change and to give hunters who have become accustomed to the blinds a chance to adapt to alternative hunting methods or areas.
- Prepare and distribute a leaflet explaining the change and regulations for temporary blinds.
- Begin phase in of regulations by requiring hunters to comply with the following requirements the year before a respective pool is scheduled for permanent-blind phase-out:
 1. Blinds must be marked with name, address, and telephone number of owner.
 2. All blinds and blind material within 100 yards of blind site must be removed by the hunter within 30 days of the end of the waterfowl hunting season.

Objective 4.6.

Potter's Marsh Managed Hunt on Savanna District. Beginning with the 2006-07 season, implement a variety of administrative and regulation changes to reduce costs and provide an equitable hunting experience. Permanent blinds would be eliminated after the 2007-08 season, but boat-blind sites provided and managed.

Rationale: This objective reflects an integrated approach by reducing costs and staff time that can be devoted to wildlife objectives, while retaining the essence of the waterfowl hunt which provides a desired experience for hunters. The changes would reduce problems associated with permanent blinds as noted in Objective 4.5 (debris, private exclusive use, limiting hunting opportunities, and confrontations) and reduce the administrative costs associated with the drawings, permit administration, and oversight of the current program (see the issue discussion in the Draft EIS/CCP, Chapter 1, Section 1.4.5.4).

Strategies

- Implement the following for the 2006 waterfowl hunting season:
 1. The Refuge will mark with numbered stakes 49 hunting areas (same number as current); blinds must be set up within 25 feet of stake.
 2. Blind sites must be occupied one-half hour prior to shooting time or they will be open to the public first-come, first-served.
 3. A 400-yard closed area restriction on the west boundary of Potter's Marsh will be maintained (491 acres) to prevent encroachment from other public hunting.

- Implement the following regulation changes for the 2008 season:
 1. Permanent blinds will not be allowed. Only boat blinds in accordance with Refuge temporary-blind regulations.
 2. The Refuge will continue to mark 49 hunting areas and boat blinds must be set up within 25 feet of stake.
- Implement the following application and drawing procedure changes for the 2006 season:
 1. Accept applications and hold drawing for blind area on same day, generally on a Saturday in July coinciding with the northwest region of Illinois Department of Natural Resources managed hunt drawing .
 2. Applicant must be present at drawing.
 3. Applicant must have current Firearm Owners Identification if Illinois resident, and current year license and state and federal duck stamps.
 4. Applicants must be 16 years of age by date of drawing.
 5. Applications accepted 10 a.m. to 2 p.m. with drawing at 2 p.m.
 6. The successful applicant receives boat-blind site for entire season.
 7. Application fee \$10, plus \$100 fee for successful applicants.
- Conduct public information campaign to inform the public of the change and to give hunters who have become accustomed to the former managed hunt a chance to adapt to alternative hunting methods or areas.

Objective 4.7.

Blanding Landing Managed Hunt. After the 2006-07 season, eliminate the managed waterfowl hunt at Blanding Landing, Lost Mound Unit, Savanna District (former Savanna Army Depot), including the use of permanent blinds, and open the area to waterfowl hunting on a first-come, first-secured basis.

Rationale: The Illinois Department of Natural Resources administers this hunt on behalf of the Savanna Army Depot, but with transfer of jurisdiction to the Service, hunting on this area is now the responsibility of the Refuge. Similar to the Potter's Marsh Managed Hunt above, this objective would reduce problems associated with permanent blinds as noted in Objective 4.5 (debris, private exclusive use, limiting hunting opportunities, and confrontations) and eliminate the administrative costs associated with the drawings, permit administration, and oversight of the current program. This objective reflects a wildlife emphasis since funding and staff currently devoted to this hunt could be focused on wildlife objectives throughout the Savanna District, and especially the new Lost Mound Unit which has large start-up needs. This objective also reflects a public use emphasis by opening an area to a larger number of waterfowl hunters.

Strategies

- Conduct a public information campaign prior to implementation to inform the public of the change and give hunters accustomed to the managed hunt a chance to adapt to alternative hunting methods or areas.

Objective 4.8

General Fishing. Provide and enhance year-round fishing on 140,240 acres of surface water within the Refuge, and an additional 3,081 acres of waterfowl sanctuaries open spring, summer, and winter. (Note: Iowa, Wisconsin, and

Illinois regulations also maintain fish “refuges” below lock and dams 11, 12, and 13, December 1 through March 15). Add three new fishing piers or docks for a total of 18.

Rationale: This objective represents the current areas available and open to fishing. Fishing is one of the priority uses of the Refuge System and is to be facilitated when compatible with the purposes of the Refuge and the mission of the Refuge System. Enhanced fishing opportunities are also a reflection of river and Refuge health. The increase in fishing piers or docks is proposed in-line with the integrated public use emphasis of this alternative. These facilities offer fishing opportunities for persons without boats. In Alternative E, the location of two fishing piers was changed following public review, but the total number remains the same.

Strategies

- Enhance fishing opportunities on suitable areas of the Refuge through habitat, access, and facility improvements as outlined in other plan objectives.
- Continue to promote fishing through Fishing Days and other outreach and educational programming.
- Cooperate with the states in their ongoing fishery management programs.
- Seek new funding and partnership opportunities to construct the new fishing piers.
- Ensure yearly inspection and maintenance of all fishing piers to maintain quality and safety.

Objective 4.9.

Fishing Tournaments. By January 2008, in collaboration with the states and the Corps of Engineers through the Upper Mississippi River Conservation Committee, develop a plan for dove-tailing Refuge permitting requirements with the respective state-issued permits for all fishing tournaments occurring on the Refuge.

Rationale: Fishing tournaments continue to grow in size and number on the Mississippi River and on the Refuge. Conflicts can at times occur between tournaments and between tournament participants and the general public due to location, timing, frequency, and size of tournaments. These conflicts can be heightened by differing state and Corps of Engineers policies and permit requirements and stipulations. Care must also be taken to safeguard sensitive habitats or fish and wildlife areas within the Refuge. Since fishing tournaments are a use of the Refuge, they are subject to regulations governing uses on national wildlife refuges.

The Refuge has not provided any oversight to tournaments in the past, deferring to the individual states’, and at times Corps of Engineers’, regulatory and permitting processes. Although the states will retain their leadership role, the Refuge needs to meet its regulatory requirements for tournaments occurring on the Refuge. This can most efficiently be accomplished by dove-tailing any Refuge requirements in the state permit process and provide one-stop-shopping for tournament clients. Since tournaments often cross state lines regardless of the origin, the Refuge can also serve as a catalyst for an integrated and consistent approach to fishing tournament management on the river.

Strategies

- Use the Upper Mississippi River Conservation Committee as a forum to discuss with the states and the Corps of Engineers the best strategies for dove-tailing Refuge permit requirements with their permitting procedures.
- Develop with the states and the Corps of Engineers time, space, and capacity parameters on each Pool within the Refuge, and definitions for what constitutes a fishing tournament.
- Seek fishing tournament organization input in planning a permit allocation and application process, and ensure opportunity for public involvement and review.
- Foster the use of a web-based tournament management system so all partners, tournament sponsors, and the public have access to scheduling information, tournament dates, and permit procedures.

Objective 4.10.

Wildlife Observation and Photography. Maintain the following existing and new facilities to foster wildlife observation and photography opportunities: 27 observation decks and areas, three observation towers, four photography blinds, 15 hiking trails, 19 canoe trails, six biking trails, and three auto tour routes.

Rationale: Wildlife observation and photography are two of the six priority public uses of the Refuge System and are to be facilitated when compatible. This objective represents a marked increase in the number of existing observation decks/areas (plus 12), observation towers (plus three), photography blinds (plus four), hiking trails (plus nine), canoe trails (plus 15), biking trails (plus three), and auto tour routes (plus two). This expansion of facilities reflects a balanced and measured increase in facilities for wildlife observation and photography, while continuing to meet fish and wildlife protection and management responsibilities.

Strategies

- Schedule annual inspection and maintenance of the facilities.
- Ensure adequate signing and information in brochures, websites, and maps so the public is aware of the facilities.
- Continue to promote the wildlife observation and photography opportunities of the Refuge through public education, outreach, special programs, and partnerships with the states, Corps of Engineers and private conservation groups.
- Enhance observation and photography opportunities on suitable areas of the Refuge through habitat, access, and facility improvements as outlined in other plan objectives.
- Seek new funding and partnership opportunities, including volunteers, for construction and maintenance of facilities.

Objective 4.11.

Interpretation and Environmental Education. By the end of 2010, increase the number of stand-alone interpretive signs to 102 (plus 43) and build new district offices with visitor contact facilities at McGregor, Winona, La Crosse, and the Lost Mound Unit. Continue to print and distribute a Refuge General Brochure, and update websites quarterly. Continue to sponsor at least two major annual interpretive events on each Refuge District, and by January

2008 establish at least one major environmental education program at each District with visitor services staff.

Rationale: Interpretation and environmental education are two of the six priority public uses of the Refuge System and are to be fostered if compatible with the Refuge purpose and Refuge System mission. Interpreting the resources and challenges of the Refuge to the general public and incorporating these topics into school curricula are important ways to influence the future well-being of the Refuge and the river. Only through understanding and appreciation will people be moved to personal and collective action to ensure a healthy Refuge for the future. Interpretation and environmental education are also key to changing attitudes and behavior which affect the Refuge through off-Refuge land use decisions and on-Refuge conduct and use.

This objective reflects a marked increase in interpretation and environmental education capability and programs and reflects the importance of these programs in an integrated resource management alternative. It also reflects basic needs for a Refuge that is the most heavily visited in the United States, and would provide facilities necessary to inform and educate visitors and help them make the most of their Refuge visit. Since environmental education is curriculum-based and labor intensive, initial efforts will be limited to Districts with public use staff, but will increase across all Districts as staff are added.

Strategies

- Hire visitor services specialists at McGregor and Winona Districts (top priority), and hire a visitor services specialist to be stationed at the National Mississippi River Museum in Dubuque, Iowa, to help present Refuge-specific programs.
- Continue work to complete exhibits at Savanna and La Crosse offices, and seek funding to replace exhibits at McGregor District and the Lost Mound Unit of the Savanna District.
- Participate in national interpretive events such as National Wildlife Refuge Week or Migratory Bird Day for efficiency and effectiveness.
- Conduct a quarterly condition review of interpretive signs and complete maintenance and sign replacement as needed.
- Cooperate with existing interpretive and environmental education programs offered by the states, Corps of Engineers, other agencies and private conservation groups, and continue to seek grants to fund events and programs.
- Continue to place interpretive signs at public access and overlook points in cooperation with various agencies and units of government.

Objective 4.12.

Commercial Fish Floats. By the end of 2006, develop new facility, operations, and concession fee standards for the four existing commercial fish floats or fishing piers below Locks and Dams 6, 7, 8, and 9. Phase out those operations which do not meet new standards, solicit proposals for new floats, and base a decision on the adequacy and feasibility of the new proposals.

Rationale: This objective would continue to recognize the important role of fish floats in providing an alternative fishing experience for a diversity of Refuge visitors. However, new standards would address several long standing management issues such as permit non-compliance, condition and

safety issues with some operations, net economic loss to the government, and noncompliance with regulations governing concessions on national wildlife refuges. Phasing out operations not in compliance would reduce Refuge administrative and staff costs, resources that could be directed back to fish-and-wildlife-related objectives. Soliciting new proposals to replace any facilities phased out could lead to quality replacements to meet need and demand while reducing staff oversight.

Strategies

- Seek input from current fish float owners, draft new standards well in advance of implementation, and give fish float owners/operators a chance to review and comment.
- Continue yearly coordination meeting with float owners and operators to address concerns and permit conditions.
- Continue enforcement of permit stipulations and suspend permits of those operations not meeting the stipulations.
- Inspect facilities for safety at least once yearly.
- If any floats are phased out due to non-compliance with permit stipulations, ensure adequate public notice so clients can seek alternate opportunities and ensure timely solicitations of new float proposals.

Objective 4.13

Guiding Services. In collaboration with the states and the Corps of Engineers, implement in spring 2007, a consistent process for issuing permits for persons conducting for-hire guided hunting, fishing, and wildlife observation activities on the Refuge.

Rationale: As noted in the issues section of Chapter 1, guiding businesses are on the rise and promise to become an increasingly common activity on the Refuge. Without proper oversight, this activity could lead to disturbance to sensitive areas and wildlife, and increased conflict with the general public or other guides as volume and frequency increases. In addition, guiding and other commercial uses are prohibited on a national wildlife refuge unless specifically authorized via permit. The Refuge needs to bring this use into compliance with regulations and policy. Effectively managing this use would not only safeguard fish and wildlife resources, but also benefit the general public that uses the Refuge for hunting, fishing, and wildlife observation, and thus represents an integrated approach.

Strategies

- Use the Upper Mississippi River Conservation Committee as a forum to discuss with the states and the Corps of Engineers the best strategies for dove-tailing Refuge permit requirements with their permitting procedures.
- Develop with the states and the Corps of Engineers capacity parameters on each Pool(s) within the Refuge for various types of guiding operations. The parameters should aim to minimize competition or conflict with the general public engaged in hunting, fishing, and wildlife observation, minimize conflicts between guides, and ensure a viable economic opportunity for existing guiding businesses.
- Conduct a public information effort through news releases and media contacts to implement the objective.
- Provide proactive enforcement through Refuge other agency law enforcement officers.

Goal 5: Other Recreational Use. We will provide opportunities for the public to use and enjoy the Refuge for traditional and appropriate non-wildlife-dependent recreation that is compatible with the purpose for which the Refuge was established and the mission of the Refuge System.

Objective 5.1.

Beach Use and Maintenance. Beginning in spring 2007, use the following general guidelines, regulations and policies to manage beach-related uses and beach maintenance. Other existing public use regulations pertaining to beach areas (see Appendix J of the Draft EIS/CCP) will remain in effect.

- 1.) *General Guidelines.* Beach-related uses will be governed by the following over-arching guidelines:
 - a) protect human health and safety.
 - b) minimize dangerous situations for Refuge officers.
 - c) minimize impacts to wildlife and the Refuge environment.
 - d) minimize conflicts with wildlife-dependent users.
 - e) set policies and regulations that are reasonable and feasible to administer and enforce.
 - f) minimize or offset current and future administrative, operating, and maintenance costs.
 - g) make regulations easily understood by the general public.
- 2.) *Beach Use Policy.* Remnant and active dredged material placement sites, natural sand shorelines, and all other shoreline areas within the Refuge will be open to public use and enjoyment in accordance with current and proposed (see item 3 below) Refuge Public Use Regulations. Based on clearly articulated reasons, the Refuge Manager may close or restrict use on certain beach and other shoreline areas to address chronic public use problems or safeguard wildlife or habitat values. Unless an emergency situation, these closures or restrictions will be coordinated with the states and Corps of Engineers through existing interagency workgroups or through the pool-by-pool beach planning process, and the public will be given proper notice and an opportunity to comment.
- 3.) *New Regulations for Camping and Other Beach-related Uses.* Current public use regulations as described in the Refuge Public Use Regulations brochure (see Appendix J of the Draft EIS/CCP) will remain in effect, except by April 1, 2007, the following regulation changes will be implemented:
 - a) Areas open to camping remain unchanged from existing policy and regulations. However, camping is defined as erecting a tent or shelter of natural or synthetic material, preparing a sleeping bag or other bedding material for use, parking of a motor vehicle or mooring or anchoring of a vessel, for the apparent purpose of overnight occupancy, or, occupying or leaving personal property, including boats or other craft, at a site anytime between the hours of 11 p.m. and 3 a.m. on any given day.
 - b) Human solid waste and associated material must either be removed and properly disposed of off-refuge, or, be buried on site to a depth of 6-8 inches and at least 50 feet from waters edge. The burying of all other refuse, trash, or litter is still prohibited.

- c) The use or possession of glass food and beverage containers while afoot on lands within the Refuge is prohibited (vehicles and watercraft are exempt).
 - d) No change to existing alcohol use regulations as published in the Code of Federal Regulations (50 CFR 27.81 and 32.2) for national wildlife refuges: “Entering or remaining in any national wildlife refuge when under the influence of alcohol, to a degree that may endanger oneself or other persons or property or unreasonably annoy persons in the vicinity, is prohibited” and “The use or possession of alcoholic beverages while hunting is prohibited.”
- 4.) *Beach Management and Maintenance Policy.* The Refuge will play an active role in completing beach management plans with the Corps of Engineers and the states for all pools within the Refuge, and supports active public involvement in the process. However, the Refuge will in general only concur with maintenance of beaches on remnant dredge material islands or existing dredge material placement sites adjacent to the main channel of the river that are designated “low density recreation” in current Land Use Allocation Plans, or those not otherwise closed to use. Maintenance should be limited to the minimum reshaping, leveling, and vegetation clearing needed to ensure safe access and to facilitate the camping experience. Top dressing with sand should only be done under special circumstances. The scope and extent of all maintenance will be on a site-by-site basis as determined by the respective District Manager in consultation with the Corps of Engineers and the respective state. The Refuge will continue to request the closure of openings to dredge material placement sites after emptying on Service-acquired lands and Corps-acquired lands due to concerns with crowding, large group behavior issues, steep slopes, and shoreline drop-offs. Enforcement of non-wildlife-related recreation in empty placement sites left open on Corps-acquired lands will not be the responsibility of the Refuge.

Rationale: Non-wildlife-dependent recreation continues to increase on the Mississippi River and the Refuge. It is estimated that 1.3 million persons per year use the Refuge for camping, recreational boating, picnicking, swimming, social gatherings, and other uses not dependent on the presence of fish and wildlife. This objective, with its new policies and regulations, would help address some of the issues related to beach use described in the issue section of Chapter 1 of the Draft EIS/CCP, most notably protection of sensitive wildlife and habitat, human waste, intoxication, unlawful and unruly behavior, officer and public safety, and preemptive use of preferred camping or hunting sites. This objective represents an integrated wildlife and public use approach, using reasonable regulations and policy to ensure that beach-related uses are compatible with the fish, wildlife, and plant conservation purposes of the Refuge and to address public safety concerns. The existing alcohol use regulation was deemed adequate, with the main problem being public awareness of the full regulations versus a set blood alcohol limit. The glass container regulation was added in this alternative since it was suggested by the public at several workshops to address safety problems with broken glass on beach areas. The beach management and maintenance policy strengthens the Refuge commitment to completing beach management plans in collaboration with other agencies and the public, while communicating the Refuge’s preferred policy or framework for completing the plans. This policy also clarifies the Refuge’s position on the management

of dredge material placement sites and addresses concerns of agency responsibility on areas actively used by the Corps of Engineers for navigation system management.

Strategies

- Continue to work with the states and the Corps of Engineers through existing interagency workgroups, to complete beach plans for each pool within the Refuge with due consideration of the policies and regulations above. Actively seek public input and comment for beach plan preparation.
- Conduct a public information and education campaign well before implementation of regulation changes, to include news releases, general articles, fact sheets, and media interviews.
- Institute an active “Leave No Trace” program for beach users (plan ahead and prepare, travel and camp on durable surfaces, dispose of waste properly, leave what you find, minimize campfire impacts, respect wildlife, and be considerate of others).
- Explore a citizen “Adopt a Beach” program to help address beach maintenance and clean-up needs.
- Develop a brochure that clearly explains new policies and regulations and answers frequently asked questions.
- Refuge officers will increase contacts with Refuge users once this plan is approved to explain pending regulation changes. Verbal or written warnings will be used at officer discretion during the first year of implementation to ease the transition.
- Continue to explore a user fee system to off-set costs of beach-related recreation such as camping in line with new fee legislation passed by Congress in 2004. Any fee proposal would be drafted only with full public, state, and Corps of Engineers involvement.

Objective 5.2.

Electric Motor and Slow, No-Wake Areas. Beginning in the spring of 2007, establish a total of six Electric Motor Areas on the Refuge encompassing 1,947 acres, and eight Slow, No Wake Areas encompassing 10,569 acres. (See Table S-1, Table S-2, and Table S-4, maps in the Executive Summary of Alternative E, and Supplement Appendix B on the website). These areas are defined as follows:

Electric Motor Areas. Areas closed year-round to all motorized vehicles and watercraft except watercraft powered by electric motors or non-motorized means. The possession of other watercraft motors is not prohibited, only their use. For example, anglers could switch to an electric trolling motor when entering these areas.

Slow, No Wake Areas. From March 16 through October 31 in these areas, watercraft must travel at slow, no-wake speed and no airboats or hovercraft are allowed. Respective state definitions for what constitutes “slow, no/wake” speed or operation will apply as appropriate.

Rationale: This objective will help reduce disturbance to backwater fish nurseries and sensitive backwater wildlife such as raptors, Black Terns and other colonial nesting birds, and furbearers in keeping with the wildlife mission of the Refuge. It will also address the need to provide areas of quiet and solitude sought by many users of the Refuge, and thus provide a balanced approach in line with the focus of this alternative. This balancing of needs

and desire of user groups, and within user groups, is becoming more important as visitation grows, technology advances, and the use of such technology increases (for example jet skis, mud motors, airboats, and hovercraft). The seasonal prohibition of airboats and hovercraft in the Slow, No Wake Areas recognizes the innate and virtually unavoidable noise levels produced by these types of watercraft. The seasonal approach also allows the use of airboats and hovercraft during the trapping season and for about half of the waterfowl hunting season when it is 60 days or longer. Due to the size and scope of the Refuge, space and time restraints are deemed a fair approach to watercraft use on the Refuge in keeping with the overall goal of providing high quality and sustainable wildlife-dependent recreation and opportunities for other recreation.

This objective only affects the means of navigation in these areas, and all current uses would be allowed (fishing, hunting, camping, wildlife observation, etc.) in accordance with current regulations or those proposed elsewhere in this alternative. This alternative also reflects the substantial public comment received about proposed electric motor areas and suggestions to use slow, no wake designations versus electric motor areas to meet concerns of wildlife disturbance and user conflict while not unduly restricting public access and use. Three areas originally proposed were dropped from any designation after further review and consideration of public comment.

Strategies

- Conduct a public information campaign to inform and educate the public about pending area designations and implementation dates. Use news releases, media interviews, fact sheets, brochures and website in the information effort.
- Clearly delineate Electric Motor Areas and Slow, No-Wake Areas on Refuge maps and by appropriate signing.

Objective 5.3.

Slow, No Wake Zones. In 2006, begin adding 13 new Refuge-administered slow, no wake zones (brings total to 15) and assist local or other units of government in the enforcement of 43 other slow, no wake zones within the Refuge. In Spring Lake and Crooked Slough-Lost Mound (Pool 13), implement in 2006 a speed and distance restriction similar to state regulations: "Watercraft operators must reduce the speed of their watercraft to less than 5 mph when within 100 feet of another watercraft that is anchored or underway at 5 mph or less."

Rationale: On a few areas of the Refuge, boat traffic levels and size of boats is leading to erosion of island and shoreline habitat, which can impact fish and wildlife habitat and archeological sites directly or indirectly through increasing sedimentation and water turbidity. On some of the areas identified, slower speeds would reduce safety hazards posed by heavy traffic and blind spots in narrow channels. Public comment on the proposed Spring Lake speed limit and Crooked Slough slow, no wake regulation led to a change to address boating safety and user-conflict concerns. The speed and distance regulation will address these concerns without unduly restricting boating use when no other boats are present.

Strategies

- Work with local authorities to designate and mark slow, no wake zones.

- Communicate the changes with the public well in advance of implementation using the media and other means, and clearly show Slow, No Wake areas on maps available to the public.

Objective 5.4.

Dog Use Policy. Beginning March 1, 2007, implement the following new regulation governing dogs on the Refuge:

“From March 1 to June 30, dogs are not allowed to run free and must be restrained by leash or other means. At other times, dogs are allowed to be free only under the following conditions: a) when at least 100 yards away from any designated Refuge public concentration area such as access roads, trail heads, trails, kiosks, rest areas, pull-offs, and boat landings, and, at least 100 yards away from another person not accompanying the owner/handler, and b) when within sight and voice control of the owner/handler. Hunting and retrieving dogs are exempt from these conditions while engaged in authorized hunting activities during the hunting season. Field trials or commercial/professional training is prohibited.”

Rationale: This objective relaxes the current Refuge System regulation which prohibits unconfined domestic animals on national wildlife refuges. The new regulation provides stipulations for allowing dogs to be free and would allow owners to exercise their dogs, but protect wildlife during the sensitive nesting or young rearing season. The new regulation also helps safeguard other visitors from the real or perceived threat that dogs and other animals can pose, but recognizes their traditional use and conservation benefit in hunting. The prohibition of field trials and commercial or organized dog training is a continuation of a long-standing Refuge policy. This regulation also does not affect the existing regulation that prohibits all other unconfined domestic animals on the Refuge.

Strategies

- Publish the new regulation in the Refuge public use regulation brochure, issue news releases, and conduct other outreach prior to implementation in 2007.
- Except in certain cases, law enforcement officers will generally give verbal and/or written warnings for violations of the new regulation the first year, then issue violation notices at their discretion beginning in 2008.

Objective 5.5.

General Public Use Regulations. Beginning in 2006, conduct annual review and update of the general public use regulations governing entry and use of the Refuge (current regulations are found in Appendix J of the Draft EIS/CCP).

Rationale: Public entry and use regulations not only protect wildlife, but enhance the quality of the visitor experience and thus reflect the integrated focus of this alternative. The current regulations were last reviewed and amended in 1999. However, the resources and public use of the Refuge is dynamic, and a yearly review would ensure that regulations are needed, clear, and effective. In addition, new regulations may be required to safeguard resources or to address new or emerging problems recognized by managers and law enforcement officers. An annual review would provide a more systematic process than in the past.

Strategies

- Conduct review during Refuge law enforcement meetings.

- Provide the public, states, and Corps of Engineers ample opportunity to review and comment on any new or substantially changed regulation.
- Follow national guidance for any changes affecting hunting and fishing and make part of the Code of Federal Regulations governing national wildlife refuges.
- Update, print, and distribute the Public Use Regulations brochure.
- Post pertinent regulations at boat landings and other public use areas, such as trail heads and beach areas.
- Continue proactive law enforcement to inform and educate the public on Refuge regulations and to seek their compliance.

Goal 6: Administration and Operations. We will seek adequate funding, staffing, and facilities, and improve public awareness and support, to carry out the purposes, vision, goals, and objectives of the Refuge.

Objective 6.1.

Office and Shop Facilities. By 2010, construct new offices and maintenance shops at Winona, La Crosse, and McGregor Districts, and expand the office and construct a new maintenance shop at the Savanna District. Each office would feature a biological work area or lab, and modest public orientation, interpretation and environmental education capability. Refuge Headquarters would be integrated with either the Winona or La Crosse offices. By 2020, remodel or replace the office and shop at the Lost Mound Unit.

Rationale: This objective emphasizes a balanced approach to replacing current office facilities, with a focus on both the resource and public use responsibilities of the Refuge. The expansion of the Savanna District office would be an additional meeting room/classroom for expanded interpretive programs and environmental education.

Strategies

- Ensure that Refuge office and maintenance needs are reflected in budget needs databases.
- Work with the Refuge Friends Group to raise private funds for the Savanna expansion.
- Continue to maintain Service-owned facilities using annual maintenance budget allocations.

Objective 6.2.

Public Access Facilities. By 2020, add one new boat landing (total of 27), four new walk-in accesses, and one new and one improved canoe landings. Improve five parking areas on the Refuge to support public use.

Rationale: This objective represents a modest increase in public access facilities to help facilitate wildlife-dependent recreational uses. Since the Refuge is mainly a floodplain Refuge bounded by major rail lines and highways, opportunities for increasing access points is limited. In addition to these accesses, there are 222 other public and private boat accesses that provide access to the Mississippi River or its tributaries, and thus the Refuge.

Strategies

- Continue routine upkeep of boat accesses by Refuge staff, temporary employees and Youth Conservation Corps members when available, and volunteers.

- Continue to modernize accesses using Maintenance Management System funding or special funding which is provided periodically. Seek design input from users of the accesses.
- In cooperation with states and local governments, explore Transportation Enhancement Act projects and funding for new accesses and to upgrade current Refuge accesses.

Objective 6.3.

Operations and Maintenance Needs. Complete annual review of Refuge Operating Needs System (RONS), Maintenance Management System (MMS), and Service Assessment and Maintenance Management System (SAMMS) databases to ensure these reflect the balanced funding needs for carrying out this alternative. Continue to document operations and maintenance needs for habitat projects completed on the Refuge through the Environmental Management Program or any future Navigation and Environmental Sustainability Program administered through the Corps of Engineers.

Rationale: The RONS, MMS, and SAMMS databases are the chief mechanisms for documenting ongoing and special needs for operating and maintaining a national wildlife refuge. These databases are part of the information used in the formulation of budgets at the Washington and Regional levels, and for the allocation of funding to the field. It is important that the databases be updated periodically to reflect the needs of the Refuge, and in particular the objectives and strategies elsewhere in this alternative.

Habitat projects completed through the Environmental Management Program also carry with them an operations and maintenance obligation. For existing projects, this cost amounted to actual Refuge costs of \$139,000 in 2003 and \$98,600 in 2004. No additional funding is provided by Congress to cover these annual and increasing costs. Estimated annual operations and maintenance costs are expected to grow as projects age, and are projected to average \$365,000 per year during the 15-year span of this plan. These costs could accelerate if Congress authorizes and funds the proposed Navigation and Environmental Sustainability Program as documented in the Corps of Engineers 2005 navigation feasibility study.

Strategies

- Ensure that needs are documented, communicated, and summarized in Appendix L of the Draft EIS/CCP Plan Implementation.

Objective 6.4.

Public Information and Awareness. By 2007, increase by 50 percent the current annual average of 80 media interviews, 125 news releases, and 25 special events (special programs, presentations, and displays at others' events), and by 2020 increase information kiosks to 118, an increase of 55. (See Table S-2 in this document and maps in the Executive Summary of Alternative E).

Rationale: This objective reflects an emphasis on providing the public with more information on both resource-related and public use-related aspects of the Refuge in keeping with a balanced approach. The number of kiosks is high given the size and length of the Refuge, numerous access points, and adjacent National Scenic Byways.

Strategies

- Hire visitor services specialists for those Districts without, namely Winona and McGregor Districts.

- Hire a public information specialist at Headquarters to increase effort on interviews, news releases, and special events.
- Tap other specialists identified in this alternative (e.g. forester, fishery biologist) for information and outreach on resource programs of the Refuge.
- Continue to look for creative ways to leverage efforts and funding for public information.
- Carry out related objectives dealing with trails, leaflets, websites and interpretive signs (see objectives 4.10 and 4.11).
- Cooperate with the states and the Corps of Engineers on visitor surveys to gauge public awareness of the Refuge and Mississippi River resources.

Objective 6.5.

Staffing Needs. By 2015, increase staffing from current permanent, full-time level of 37 people to 63 people (60.5 full-time equivalents or FTEs) in a full range of disciplines which benefit both resource and public use objectives in this alternative.

Rationale: This objective reflects a balance approach to Refuge management by providing operations and maintenance-funded staffing deemed necessary to meet the goals and objectives of this alternative. The increase in staff would bring the Refuge just above “minimum staffing levels” used for planning purposes in the National Wildlife Refuge System. Like all land management, refuge management is labor intensive and labor costs represent over 95 percent of the base operations funding received each year. These staffing needs are documented in the strategies for various objectives in this alternative. Based on public input concerning the need for additional law enforcement capability and presence, an additional four full-time law enforcement officers (one for each of the four Refuge districts) was added in this alternative. This increase in law enforcement capability is still far below levels recommended in various law enforcement assessments and deployment models for a refuge of this size and visitation level.

Strategies

- Ensure that staffing needs are incorporated in budget needs databases.
- Maintain other sources of funding for staff who coordinate the Environmental Management Program and the Partners for Fish and Wildlife Program.
- Strengthen existing volunteer program and recruit new volunteers to assist with resource management and visitor services.

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
1.1 Refuge Boundary	In coordination with the Corps of Engineers, survey and post entire boundary by 2020.	In coordination with the Corps of Engineers, identify, survey, and post all areas where threat of encroachment is greatest by 2020.
1.2 Acquisition within approved boundary	Acquire from willing sellers an average of 1,000 acres per year or 15,000 acres by 2020 (58% of goal). Give highest priority to acquisition of lands and waters most important to fish and wildlife, but consider public recreation values.	Same as D
1.3 Bluffland protection	Acquire from willing sellers 13 bluffland areas within approved boundary (Winona District – 6, La Crosse District – 3, McGregor District – 4). Work with partners to leverage resources, and consider a blend of easements and fee-title acquisition.	Same as D
1.4 Research Natural Areas and Special Designations	More actively administer Natural Areas; complete management plan for each by 2010 with focus on plant and wildlife conservation. Increase effort to make public aware of values and management of Natural Areas by incorporating information in brochures, maps, and websites. Also, nominate Refuge as Wetland of International Significance under Ramsar.	Same as D
2.1 Water Quality (chemistry and sediments)	Proactive program to address water quality: priv. lands biologists watershed agreements assessments research/education support UMRBA efforts to standardize water quality criteria Address sedimentation in backwaters through EMP and other programs; ensure that fish and wildlife objectives are met while integrating public use needs such as access.	Same as D, but expand strategies, especially for sedimentation, in consultation with U.S. Geological Survey scientists and others.

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
2.2 Water level management	By 2020, complete drawdowns of Refuge pools and seek establishment of Access Trust Fund so drawdowns can be accomplished as needed based on habitat conditions.	By 2020, complete as many drawdowns of Refuge pools as practicable through the interagency workgroups based on ecological need and engineering feasibility. Retain Access Trust Fund provision from Alternative D.
2.3 Invasive Plants	Complete invasive plant inventory by 2008; reduce acres affected by 10% by 2010.	Same as D, but recognize that some level of control should continue before and during inventory work.
2.4 Invasive Animals	Increase efforts to control invasive animals through active partnerships with the states and other federal agencies, and increase public awareness and prevention.	Similar to D, but strengthen the objective and strategies to highlight the seriousness and urgency of the invasive animal threat, especially in regard to asian carp species.
3.1 Environmental Pool Plans	Aggressive implementation of Pool Plans using all tools available, with 30% of the portion of the priority projects/tools within the approved refuge boundary completed by 2020.	Same as D
3.2 Guiding Principles for all habitat management programs	Adopt and begin use of guiding principles when providing input to design and construction of projects. Principles will integrate public use and aesthetic considerations with fish and wildlife needs.	Same as D, but clarify some language so that active management practices not discouraged (e.g. moist soil, water control structures) and consideration given to other agency guidelines.
3.3 Monitoring fish and wildlife populations	Increase monitoring efforts. Amend Wildlife Inventory plan by 2008 to include more species and more emphasis on habitat monitoring and research.	Same as D
3.4 Threatened and Endangered species	By 2008, begin monitoring all federally listed threatened or endangered and candidate species and prepare management plans to help recovery.	Same as D, but in strategies recognize need to monitor state-listed species in coordination with the states.
3.5 Furbearer trapping	Continue basic trapping program until refuge trapping plan, with public involvement, is updated by 2007.	Same as D, but in strategies outline trapper involvement in preparing trapping plan.

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
3.6 Fishery and Mussel Management	Increase refuge involvement in fishery management by: 1. Completing by 2008 a Fishery and Mussel Management Plan which incorporates current monitoring and management by the states and other Service offices. 2. Hire a fishery biologist to facilitate state, Service, and refuge coordination.	Same as D, but change some wording in rationale and strategies to emphasize state and Corps role.
3.7 Commercial fishing and clamming	Increase refuge involvement in commercial fishing and clamming by: 1. Completing a Fishery and Mussel Management Plan (see Objective 3.6) 2. Issuing refuge special use permits in addition to state-required permits 3. Increase coordination with the states for commercial fishing activity to meet fishery objectives, especially in regards to invasive fish species (see Objectives 2.4 and 3.6)	Same as D, but change wording in item 2 to reflect “one-stop-shopping” aspect of dovetailing Refuge permit with state-issued permit. Change wording in rationale and strategies to emphasize state lead in fisheries. Emphasize collaborative approach with states and Corps. Reference commercial fishing exception to public use restrictions for Waterfowl Hunting Closed Areas and work with commercial fishermen on ways to lessen disturbance.
3.8 Turtle Management	Increase refuge involvement in turtle management by: 1. Completing a 3-5 year turtle ecology study of representative habitats of the entire refuge, and 2. Coordinating with other agencies on turtle management actions including monitoring, harvest, and limiting disturbance to nests.	Same as D
3.9 Forest Management	Increase refuge involvement in forest management by: 1. Completing, with Corps of Engineers, a forest inventory for the entire refuge. 2. Hire a refuge forester to complete a Forest Management Plan and lead an active forest management program.	Same as D, but in strategies look for ways to leverage funds to add needed seasonal forestry technician at each District in addition to refuge forester.
3.10 Grassland Management	Maintain 5,700 acres of grassland through various management tools including prescribed fire, haying, and control of invasives. Complete a stepdown Habitat Management Plan to address grassland conservation and enhancement.	Same as D.

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
4.1. General Hunting	Maintain a minimum of 190,586 acres (79.5%) of land and water open to all hunting. Add 6 new No Hunting Zones for a total of 5,322 acres (13 zones total).	Maintain a minimum of 189,884 acres (79.2 %) of land and water open to all hunting. Add 3 new No Hunting Zones for a total of 3,973 acres (10 zones total).
4.2 Waterfowl hunting closed areas and sanctuaries	<p>In fall 2006:</p> <ol style="list-style-type: none"> 1. Add 5 new Closed Areas and delete or modify the current 15 for a total of 21. 2. Add 2 new Waterfowl Sanctuaries (no entry) for a total of 3: <ol style="list-style-type: none"> a. Pool Slough Sanctuary (McGregor District, Pool 9, Iowa/Minnesota) b. Guttenberg Ponds portion of the 12 Mile Sough Sanctuary (McGregor District, Pool 11, Iowa) c. Spring Lake Sanctuary (Savanna District, Pool 13, Illinois) 3. All Closed Areas, except on Lake Onalaska, would be closed to fishing, except bank fishing, and all motorized watercraft, from Oct. 1 to the end of the respective state regular duck season. 4. Some boundary adjustments would be made to the Lake Onalaska Closed Area. The Voluntary Avoidance Area would continue. <p>Total acres = 43,704 Closed Areas = 18 Sanctuaries = 3</p>	<p>Similar to D except would take effect in fall 2007.</p> <p>Will add 6 new closed areas and delete or modify the current 15 for a total of 22. Make some reductions to closed areas in Pools 4, 7, and 8. In Pool 10, there would be paired closed areas versus just one, with Sturgeon Slough/McGregor Lake closed from the start of the season to October 31, and Wisconsin River Delta closed Nov. 1 to end of state duck season. In Pool 11, the Bertom-McCartney Closed Area would retain current regulations in E, and a portion of the John Deere Marsh opened to hunting.</p> <p>Voluntary Avoidance on all large closed areas Oct. 15 to the end of the respective state duck season and no motors and voluntary avoidance on small closed areas (~1,000 acres) or less Oct. 15 to the end of the respective state duck season. Establish threshold for disturbance.</p> <p>Exceptions are Spring Lake (existing no-entry, Pool 13, Illinois), Pool Slough and Guttenberg Ponds (Pools 9 and 11, Iowa, no entry), Bertom/McCartney (Pool 11, Wisconsin, no changes) and Lake Onalaska (Pool 7), Wisconsin, no change.</p> <p>Total acres = 45,755 Closed Areas = 19 Sanctuaries = 3</p>

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
4.3 Waterfowl hunting regulation changes: 1. hunter spacing, 2. shotshell limits, and 3. open water hunting Pools 9 and 11.	In 2006, implement new refuge-wide regulations limiting each hunter on the refuge to 25 shotshells/day during waterfowl season and a min.100 yards spacing between waterfowl hunting parties. Prohibit openwater hunting on areas of Pools 9 and 11.	Drop the proposed shell and spacing limit. In 2006, implement information and education effort to reduce hunter crowding, skybusting, and littering (shell hulls). Retain 200-yard spacing between boat blinds/hunting parties on Savanna District (Illinois side). In 2007, prohibit open water hunting Refuge-wide in Minnesota and Wisconsin waters versus Pools 9 and 11.
4.4 Firing Line -- Pool 7, Lake Onalaska, LaCrosse District	Establish a managed waterfowl hunting area on the north end of the Lake Onalaska Closed Area. This hunt would establish posted hunting sites and limit the number of hunters to those sites via random drawing and for-fee permits.	By July 1, 2006, complete a step-down plan for the Gibbs Lake area that addresses skybusting, crippling, competition, and unsportsmanlike conduct. Work with local waterfowlers and state managers and conservation officers to develop the plan.
4.5 Permanent hunting blinds on Savanna District	Phase-out the use of permanent hunting blinds beginning with Pool 12 after the 2006-07 season, Pool 13 after the 2007-08 season, and Pool 14 after the 2008-09 season.	Same as D
4.6 Potter's Marsh Managed Hunt - Savanna District	For 2006-07 hunting season, implement a variety of administrative changes. Permanent blinds would be eliminated after the 2007-08 season, but boat blind sites provided and managed.	Same as D
4.7 Blanding Landing Managed Hunt Program (Lost Mound Unit, Savanna District)	After the 2006-07 season, eliminate the managed hunt program, including use of permanent blinds. Open to all on first come basis.	Same as D
4.8 Fishing	Provide 110,611 acres of surface water open to year-round fishing. An additional 32,750 acres open except October 1 to the end of the state duck hunting season. Add 3 new fishing piers/docks for total of 18.	Similar to D, although change from "no fishing/no motors" in many Closed Areas to either voluntary avoidance or no motors will affect season and use (see Obj. 4.2).
4.9 Fishing Tournaments	Issue refuge special use permits for tournaments in addition to state-required permit, to minimize impact to sensitive fish, wildlife, and habitat.	Same as D, but change wording to reflect "one-stop-shopping" aspect of dovetailing Refuge permit with state-issued permit. Change wording in rationale and strategies to emphasize state lead in fisheries. Emphasize collaborative approach with states and Corps.

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
4.10 Wildlife Observation and Photography	<p>Maintain the following existing or new facilities:</p> <ul style="list-style-type: none"> 26 observation areas 16 hiking trails 21 canoe trails 5 biking trails 3 auto tour routes 3 observation towers 3 photography blinds 	<p>Slight change from D as follows:</p> <ul style="list-style-type: none"> 27 observation areas 15 hiking trails 19 canoe trails 6 biking trails 3 auto tour routes 3 observation towers 4 photography blinds
4.11 Interpretation and Environmental Education	<p>Maintain 83 existing and new interpretive signs. Build 3 new District Offices and new Lost Mound office, all with visitor contact facilities. No major visitor center. Continue refuge brochure and website. Sponsor 2 major annual interpretive events and establish 1 environmental education program on each district. Add visitor services specialists to McGregor and Winona Districts, and one at the Nat'l Miss. River Museum in Dubuque.</p>	<p>Same as D, except maintain 102 existing and new interpretive signs.</p>
4.12 Fish Floats	<p>Develop new standards for fish float facilities and operations, including new concession fees, and phase out floats that can not meet those standards. Do not replace floats that are phased out, letting private sector provide alternative off refuge lands opportunities, such as commercial fishing barges not moored to refuge lands.</p>	<p>Same as D except solicit new proposals for any float phased out for not meeting standards, and base decision on adequacy and feasibility of proposals.</p>
4.13 Guiding services	<p>Provide policy and consistent process for issuing permits for hunting, fishing and wildlife observation guide services. Coordinate with the states for consistency with their permitting requirements.</p>	<p>Same as D, but modify language to amplify cooperation with states and Corps and "one-stop-shopping" for permits when possible.</p>

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
<p>5.1. Beach use and maintenance policy and regulations</p>	<p>Open-unless-closed policy. All areas currently open to camping, boat mooring, swimming, social gatherings, picnicking and other non-wildlife-dependent uses, would remain open, except: 1) areas closed or restricted by signing to protect wildlife, habitat or the public, and 2) camping and overnight mooring limited to islands and shoreline that border the main channel, including the backside of such islands or points. Implement new regulations dealing with camping, human waste, and alcohol use. Articulate clear beach maintenance policy, and work with interagency teams to complete beach plans by pool.</p>	<p>Similar to D, with modifications:</p> <ol style="list-style-type: none"> 1. Current camping area regulations remain in effect (all open, in sight of main channel and not in Closed Areas during waterfowl season). 2. Managers may close areas for bona fide wildlife and human health and safety concerns, proper coordination with states and Corps and notice to public. 3. Drop new alcohol reg., enforce current reg. 4. Drop regulation for portable toilets or disposal kits in favor of increased “Leave No Trace” education and outreach. Require that human solid waste be either removed or buried on-site in accordance with other back country public land regulations. 5. Add regulations prohibiting the use of glass food and beverage containers on Refuge lands. 6. Proposed camping definition: keep, but add a 24-hour rule for personal property left at site to address preempting camping and hunting spots. 7. Retain “explore” user fee for camping and other beach-related uses, but add wording for interagency and citizen involvement before crafting any proposal. 8. Explore “Adopt-A-Beach” program.

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
<p>5.2. Electric Motor Areas</p> <p>Alt E Note: <u>Electric Motor Areas:</u> Island 42, Snyder, Mertes (but remove proposed no-entry overlay), Browns Marsh, Hoosier Lk, Guttenberg Ponds <u>Slow, No Areas:</u> Nelson/Trevino, Blue Lake/Target Lake, Black River Bottoms, Root River Bottoms, Princeton, 9-Mile, Reno Bottoms, Denzers Marsh <u>Deleted Areas:</u> Finger Lakes, Glass Lake, Keller's Island</p>	<p>Designate 16 new electric motor areas encompassing 14,498 acres. All current uses allowed, and areas open to primitive camping.</p>	<p>Designate 6 electric motor areas (5 are new, Mertes existing) encompassing 1,947 acres, and 8 Slow, No Wake areas* encompassing 10,569 acres. Delete 3 areas from any designation (1,719 acres). Remain open to camping in accordance with current regulations.</p> <p>*From March 16 through October 31, Slow, No Wake for watercraft and no airboats or hovercraft allowed.</p>
<p>5.3 Slow, No Wake Zones</p>	<p>Add 10 new Slow, No Wake zones, bringing total to 12 administered by the Refuge, and assist in enforcement of 43 others. Spring Lake: 20 mph limit Crooked Slough: Slow, No Wake.</p>	<p>Same as D with minor modifications. Spring Lake and Crooked Slough (Lost Mound): adopt Iowa regulation of under 5 mph if within 100 feet of another vessel going under 5 mph.</p>
<p>5.4. Dog use policy</p>	<p>Adopt enforceable regulation which safeguards wildlife and visitors: From March 1 to June 30, dogs must be restrained by leash or other means. At all other times, dogs can be free if 100 yards away from designated public use areas and/or other persons, and if within sight and voice control of owner/handler. No field trials or commercial training will be permitted (current policy).</p>	<p>Same as D</p>
<p>5.5. General Public Use Regulations</p>	<p>Conduct annual review, and update as needed, general public use regulations governing public entry and use of the Refuge.</p>	<p>Same as D, but add strategy for doing a Law Enforcement step-down plan for the Refuge in cooperation with the states and Corps of Engineers.</p>

Table S-1: Comparison of Alternatives D and E by Objective, Upper Mississippi River NWFR (Continued)

Alternatives Issue/Objective	Alternative D: Wildlife and Integrated Public Use Focus	Alternative E: Modified Wildlife and Integrated Public Use Focus (New Preferred Alternative)
6.1 Office and shop facilities	By 2010, construct new offices and maintenance shops at Winona, La Crosse, and McGregor Districts, and expand the office and construct a new maintenance shop at Savanna District. Each office would feature a biological work area or lab, and modest visitor facilities. Refuge Headquarters would be integrated with either the Winona or La Crosse offices. By 2020, remodel or replace office and shop at the Lost Mound Unit.	Same as D
6.2 Public access facilities	Add 1 new boat access, 3 new walk-in accesses, 1 new and 1 improved canoe landings, and improve 5 parking areas. Implement launch fee for Refuge-operated boat ramps.	Same as D except no launch fee for Refuge-operated boat ramps and 1 additional walk-in access.
6.3. Operations and maintenance needs	Complete annual review of Refuge Operating Needs System (RONS), Maintenance Management System (MMS), and Service Assessment and Maintenance Management System (SAMMS) databases to ensure these reflect reflect balanced needs of wildlife and integrated public use focus alternative.	Same as D
6.4. Public information and awareness	Increase by 50 percent the current annual average of 80 media interviews, 125 news releases, and 25 special events (special programs, presentations, and displays at others' events). Add 45 kiosks. Also take advantage of technical and specialist positions added in this alternative to increase outreach.	Same as D
6.5 Staffing needs	By 2015, increase staffing from current 37 to 59 people (56.5 FTEs) to bring all Districts to minimum staffing level, add specialists to Headquarters, and increase staff at Lost Mound Unit. Priority would be a blend of wildlife & public use related positions.	Similar to D, but add 4 additional FTEs: 4 Full-time Refuge Officers based on public and agency comment. Total FTEs: 60.5.

Table S-2: Summary of Project Features for Alternatives A, D and E

Feature	Existing Features		Total Proposed Features			
	Alternative A: No Action		Alt. D: Wildlife & Integrated Public Use Focus		Alt. E: Modified Wildlife & Integrated Public Use Focus (Preferred Alternative)	
	Units	Acres or Miles	Units	Acres or Miles	Units	Acres or Miles
Waterfowl Closed Areas and/or Sanctuaries	15	44,495	21	43,704	22	45,755
No open water hunting areas	0	0	2	10,487	Drop 2 areas; apply no open water hunting reg throughout MN and WI portions of the Refuge	
Managed/Special Hunts	2	2,434	2	2,403	4	2,265
Administrative no hunting zones	7	3,473	13	5,322	10	3,973
Fish catch and release area	1	700	1	700	1	700
Heron sanctuary	0	0	1	64	0	0
No Wake zones	45	NA	55	NA	58	N/A
Electric motor areas	1	222	16	14,498	6	1,947
Slow, No Wake areas	0	0	0	0	8	10,569
Research Natural Areas	4	6,946	4	6,946	4	6,946
Canoe trails	4	32.1	21	135.5	19	120.6
Hiking trails	6	20.5	17 ¹	42.4 ²	15	39.9
Auto tour routes	1	2.5	3	11.0	3	11
Biking trails	3	10.0	6 ³	21.1 ⁴	6	21.1
Fishing piers	15	NA	18	NA	18 (Drop 2, add 2)	N/A
Commercial fishing floats / piers	4	NA	4	NA	4	N/A
Boat access	26	NA	27	NA	27	N/A
Walk-in access	0	NA	3	NA	4	N/A
Canoe landing / launch	0	NA	2	NA	2	N/A
Parking lot improvements	0	NA	5	NA	5	N/A
Observation decks/areas	15	NA	26	NA	27	N/A
Observation towers	0	NA	3	NA	3 (Drop 1, add 1)	N/A
Photo blinds	0	NA	3	NA	4	N/A

Table S-2: Summary of Project Features for Alternatives A, D and E (Continued)

Feature	Existing Features		Total Proposed Features			
	Alternative A: No Action		Alt. D: Wildlife & Integrated Public Use Focus		Alt. E: Modified Wildlife & Integrated Public Use Focus (Preferred Alternative)	
	Units	Acres or Miles	Units	Acres or Miles	Units	Acres or Miles
Kiosks	63	NA	108	NA	118	N/A
Interpretive signs	59	NA	83	NA	102	N/A
Entrance signs	25	NA	30	NA	30	N/A
Official Notice Boards	29	NA	30	NA	47	N/A
Build new maintenance facilities	2	NA	5	NA	5	N/A
Build new office facilities	0	NA	3	NA	3	N/A
Build major visitor center	0	NA	0	NA	0	N/A
Refuge Staffing	37.0	NA	56.5	NA	60.5	N/A

1. Incorrectly noted in previous tables of Alternative D as 16 hiking trails.
2. Incorrectly noted in previous tables of Alternative D as 40.9 miles of trails.
3. Incorrectly noted in previous tables of Alternative D as 5 biking trails.
4. Incorrectly noted in previous tables of Alternative D as 14.1 miles of trails.

**Table S-3: Closed Areas and Sanctuaries / Alternative E
(Modified Wildlife and Integrated Public Use Focus)**

Pool	Name	State	Acres	Use Class ¹	Distance Between Areas (miles)	Up-River Mile	Down-River Mile	Comments
4	Big Lake-Buffalo Slough	WI	3,249	Large	-	759.4	754.6	Has travel corridor; voluntary avoidance (VA)
4	Rieck's Lake	WI	496	Small	0.1	755.8	755.0	Delete travel corridor; no motors, VA
5	Weaver Bottoms/ Lost Is.	MN- WI	3,693	Large	9.4	745.6	741.7	Travel corridor; VA; boundary correction to include O&M islands adds 185 acres
5	Spring Lake	WI	243	Small	0.1	741.8	740.7	No motors; VA
5A	Polander Lake	MN- WI	1,907	Large	8.9	731.8	728.4	Travel corridor; expansion of 318 acres; VA
6	Trempealeau NWR	WI	n/a	n/a	4.2	724.2	718.0	Part of existing closed area system; special regulations; 5520 acres
7	Lake Onalaska	WI	7,357	See comments	10.0	708.0	702.8	Has existing VA of 3,356 ac. No change from current regulations
8	Goose Is. No Hunt Zone	WI	975	No hunt zone; small closed area	11.6	691.2	689.8	Part of existing closed area system; has 99 acre expansion; no motors and VA; has special hunt area (235 acres) ²
8	Wisconsin Islands	MN- WI	6,510	Large	2.2	687.6	680.1	VA; adds Slow, No-Wake travel corridor on Raft Channel
9	Pool Slough	MN- IA	1,112	Sanctuary	4.9	675.2	673.0	Adjacent to state (IA) sanctuary
9	Harpers Slough	IA-WI	5,209	Large	18.2	654.8	648.0	VA
10	McGregor Lake	WI	852	Small	11.6	636.4	633.5	Special Regulations ³
10	WI River Delta	WI	1,376	Large	0.1	633.8	630.7	Special Regulations; has travel corridor ⁴
10	12-Mile Island	IA	540	Small	13.7	617.0	615.2	Pool 10 portion; no motors; VA
11	Guttenberg Ponds	IA	252	Sanctuary	0.1	615.2	613.8	Within 12-mile Island closed area
11	12-Mile Island	IA	1145	Large	0.1	615.2	611.5	Pool 11 portion of 12 Mile Island closed area; travel corridors; VA
11	Bertom McCartney	WI	2,384	See comments	7.5	604.0	598.7	No change from current regulations
11	John Deere Marsh	IA	405	Small	14.8	587.0	584.8	Travel corridor; no motors; VA
12	Kehough Slough	IL	343	Small	15.8	569.0	567.1	No motors; VA

**Table S-3: Closed Areas and Sanctuaries / Alternative E
(Modified Wildlife and Integrated Public Use Focus) (Continued)**

Pool	Name	State	Acres	Use Class ¹	Distance Between Areas (miles)	Up-River Mile	Down-River Mile	Comments
13	Pleasant Creek	IA	2,067	Large	14.4	552.7	548.5	VA
13	Spring Lake	IL	3,686	Sanctuary	11.7	536.8	531.9	Only existing sanctuary on Refuge
13	Elk River	IA	1,237	Large	0.1	532.6	528.1	VA
14	Beaver Island	IA	717	Small	11.5	516.6	514.0	No motors; VA
Total Acres = 45,755 Total Refuge Units = 22				19 Closed Areas (40,705 acres) 3 sanctuaries (5,050 acres)				

1. *Use Class. Waterfowl hunting closed areas continue to be defined as follows: Closed areas are closed to all migratory bird hunting. Other hunting and trapping is only allowed beginning the day after the close of the regular state duck hunting season, until season closure or March 15, whichever comes first, except turkey hunting is allowed during state seasons. Under Alternative E, the public will be asked to practice Voluntary Avoidance (limiting entry) on all closed areas (“Large” and “Small”) October 15 to the end of the respective state duck hunting season and in addition there will be a “no motor” restriction on Small closed areas October 15 to the end of the regular state duck hunting season. Large closed areas are greater than 1,000 acres and small closed areas are ~1,000 acres or less. “No motors” means the use of motors on watercraft is not allowed.*

Sanctuary is defined as follows: no entry October 1 to the end of the regular state duck hunting season.

2. *Goose Island special hunt area regulations: see table of managed hunts/special hunts.*

3. *McGregor Lake “small” closed area special regulations: Closed to waterfowl hunting from the state duck opener to October 31, and during the same period the area is a no motor and Voluntary Avoidance area; beginning Nov 1 area is open to waterfowl hunting until the end of the state duck season. This is a dual function closed area paired with the Wisconsin River Delta closed area.*

4. *Wisconsin River Delta “large” closed area special regulations: Open to waterfowl hunting beginning with the state opener for the duck season through October 31, thereafter, closed to waterfowl hunting and a voluntary avoidance area until the end of the state duck hunting season. This is a dual function closed area paired with the McGregor Lake closed area.*

**Table S-4: Electric Motor Areas / Slow, No-Wake Areas¹ Alternative E
(Modified Wildlife and Integrated Public Use Focus)**

Pool	Feature	State	Existing	Proposed		Up-River Mile	Down- River Mile	Distance to Landing	Change from Alternative D to Alternative E
			Alt. A Acres	Alt. D Acres	Alt. E Acres				
4	Nelson-Trevino	WI		2,626	2,626	762.5	760.0	0.1	Becomes Slow, No Wake Area
5	Finger Lakes	MN		497	0	752.7	751.5	0.2	Dropped
5	Island 42	MN		459	459	749.8	747.6	1.5	Remains electric motor area
5A	Snyder Lake	MN		182	182	735.0	734.0	2.5	Remains electric motor area
5A	Denzers Slough	MN		83	83	733.0	732.0	1.5	Becomes Slow, No Wake Area
6	Mertes Slough	WI	222	222	222	727.0	726.0	0.1	Remains electric motor area
7	Black River Bottoms	WI		1,146	1,146	711.0	708.8	0.1	Becomes Slow, No Wake Area
7	Browns Marsh	WI		966	829	711.0	708.0	0.1	Remains electric motor area; size reduced
8	Blue/Target Lake	MN		1,849	1,836	699.0	696.0	0.1	Becomes Slow, No Wake Area; size reduced
8	Root River	MN		695	695	696.0	694.0	0.5	Becomes Slow, No Wake Area
9	Reno Bottoms	MN		3,402	3,402	681.0	679.2	0.1	Becomes Slow, No Wake Area
10	Hoosier Lake (Formerly Bagley Bottoms and Glass Lake)	WI		789	162	624.8	624.0	0.1	Remains electric motor area; drop the Glass Lake section (627 acres)
11	Guttenberg Ponds	IA		93	93	614.8	614.0	0.8	Remains electric motor area
12	Nine Mile Island	IA		567	454	573.8	572.0	0.3	Becomes Slow, No Wake Area; size reduced
13	Kellers Island	IA		595	0	540.0	537.2	0.3	Dropped
14	Princeton (formerly called Rock Creek)	IA		327	327	506.7	506.0	1.3	Becomes Slow, No Wake Area
	Total Acres		222	14,498	12,516	A total of 6 Electric motor areas cover 1,947 acres.			
	Total Units		1	16	14	A total of 8 Slow, No Wake areas cover 10,569 acres.			

1. *Electric Motor Areas: Areas closed year-round to all motorized vehicles and watercraft except watercraft powered by electric motors or non-motorized means. Note: The 5 mph speed limit (Alt. D.) was dropped from the definition.*

Slow, No Wake Area: From March 16 through October 31, slow, no-wake for watercraft and no airboats or hovercraft allowed.

Acre values include both land and water located within the mapped boundary, therefore actual watercraft use areas are less than the acres shown in this table.

Table S-5: Managed Hunts / Special Hunt Areas

Pool	Feature	State	Existing	Proposed		Up-River Mile	Down-River Mile	Comments
			Alt. A Acres	Alt. D Acres	Alt. E Acres			
7	Gibb's Lake Special Hunt Area	WI	0	480	See comments	708.6	707.2	By July 1, 2006, complete a step-down plan for the Gibb's Lake area.
8	Goose Island Special Hunt	WI	0	0	235	692.0	691.5	Youth Waterfowl Hunt (age 16 or younger accompanied by an adult) from duck opener to Oct. 31. No motors and voluntary avoidance Nov. 1 to end of duck season; bow and gun deer hunting allowed during state dates. Trapping permitted after duck season.
11	John Deere Marsh Special Hunt	IA	0	0	107	586.5	586.0	Walk-in hunt only; next to closed area
12	Blanding Landing Managed Hunt	IL	511	0	0	557.7	556.8	Alts. D and E the same: end managed hunt; open area to general hunting
13	Potter's Marsh Managed Hunt	IL	1,923	1,923	1,923	526.0	522.7	Alts. D and E the same: No permanent blinds; boat blinds only
Total Acres			2,434	2,403	2,265 ¹			
Total Units			2	2	4			

1. Total may change with completion of Gibb's Lake hunt plan.

4.1 Environmental Consequences Affected by this Supplement

This supplement presents a new preferred alternative, Alternative E, that is essentially a modification of Alternative D that was presented in the full Draft EIS and CCP released for public review May 1, 2005. Compared to Alternative D, substantive changes were made to nine of 41 objectives, and most of these changes deal with time, space, and policy/regulation changes pertaining to public use on the Refuge. These changes essentially relax several proposals presented in Alternative D.

Overall, the environmental, social, and economic impacts will not be significantly different than the impacts presented and discussed for Alternative D in the full Draft EIS and CCP (Chapter 4, pages 248-287). A summary and discussion of how Alternative E may affect consequences described in Chapter 4 is presented below. Table 33, "Summary of Alternative Impacts," from the Draft EIS/CCP (page 286 of that document), has been revised to include Alternative E and is included at the end of this section as Table S-6.

4.2 Effects Common to All Alternatives

Alternative E does not alter the effects on environmental justice, cultural and historic preservation, climate change, prescribed fire, adjacent landowners, marinas, commercial navigation, commercial forest harvest, threatened and endangered species, and furbearer trapping as discussed in the Draft EIS/CCP. All of the objectives that may have an impact on these parameters are essentially unchanged in Alternative E.

4.3 Effects of Alternative E on Physical Parameters/Concerns

The effects of Alternative E are the same as presented for Alternative D.

4.4 Effects of Alternative E on Biological Parameters/Concerns

The overall effects of Alternative E on threatened and endangered species, waterfowl production and numbers, other migratory birds, sport fish, other fish, mussels, reptiles and amphibians, invertebrates, mammals, aquatic vegetation, floodplain forest, and terrestrial habitat/grasslands is virtually the same as Alternative D as presented in the Draft EIS/CCP. Waterfowl may experience some increase in disturbance in Waterfowl Hunting Closed Areas due to a change to voluntary avoidance and/or no motors entry restrictions versus closed to fishing as proposed in Alternative D. However, establishing a threshold of disturbance in Alternative E and taking more restrictive action as needed should minimize any increase in disturbance long-term. The Alternative E objective dealing with threatened and endangered species expands monitoring and management consideration to state-listed species, which could have a positive impact on the conservation of additional rare or declining fish and wildlife species compared to Alternative D. Grasslands could increase under Alternative E, which would increase the benefits discussed for Alternative D and thus have a more positive impact long-term.

4.5 Effects of Alternative E on Socioeconomic Parameters/Concerns

The overall effects of Alternative E on hunting, fishing, fishing tournaments, commercial fishing, fishing floats, interpretation and environmental education, wildlife observation and photography, recreational boating, camping and other beach-related uses; commercial guiding and tours; refuge access; control of dogs; property taxes; and refuge administration and operations should be similar to Alternative D or somewhat more positive in impact for some of the parameters. Visitation for each of the activities should remain the same as predicted for Alternative D, and thus, the economic impacts driven by visitation should be the same, or a total positive economic output of \$3,510,802 annually (Table 32, page 284 of the Draft EIS/CCP). Visitors engaged in some of the activities will find additional opportunity or options for hunting, fishing, and camping and other beach-related uses in Alternative E versus Alternative D since Alternative E relaxes some of the restrictions proposed in Alternative D.

In Alternative E, changes in Waterfowl Hunting Closed Area entry regulations and a marked reduction in Electric Motor Areas will eliminate most impacts to commercial fishing compared to Alternative D. Commercial fish float operations may still be impacted by new guidelines, but the planned replacement of any floats lost in Alternative E should negate any economic or public recreation impacts. Alternative E proposes four additional law enforcement officers in the staffing proposal compared to Alternative D, and this staff increase would have a corresponding minor positive impact due to salary and operations expenditures and economic output.

4.6 Cumulative Impacts

Cumulative impacts to the physical, biological, and socioeconomic environment as described in Chapter 4 will not be changed significantly by Alternative E for reasons stated above. Alternative E maintains the principle of balancing the physical and biological needs of the Refuge with socioeconomic needs. It maintains an integrated approach that may prove more sustainable and have positive, long-term natural resource, social, and economic impacts both on the Refuge and beyond when compared to Alternative A (no action) or B (wildlife focus).

Table S-6: Summary of Alternative Impacts

Parameter¹	Alternative A: No Action	Alternative B: Wildlife Focus	Alternative C: Public Use Focus	Alternative D: Wildlife and Integrated Public Use	Alternative E: Modified Wildlife and Integrated Public Use (New Preferred Alternative)
Physical					
Water Quality	3	4	3	4	4
Sedimentation	3	4	4	4	4
Geomorphology	3	4	3	4	4
Hydrology and Water Level Management	3	4	3	4	4
Landscape Considerations	2	4	3	5	5
Biological					
Threatened and Endangered Species	3	4	2	4	4
Waterfowl	2	4	2	4	4
Other Migratory Birds	2	4	2	4	4
Sport Fish	4	5	4	5	5
Other Fish	2	4	3	4	4
Freshwater Mussels	2	4	2	4	4
Reptiles and Amphibians	3	4	2	4	4
Control of Invasive Species	1	4	1	4	4
Invertebrates	3	4	3	4	4
Mammals	3	4	3	4	4
Aquatic Vegetation/ Wetlands	3	4	3	4	4
Floodplain Forest	2	4	2	4	4
Terrestrial Habitat/ Grasslands	3	4	3	4	4
Socioeconomic					
Hunting	3	3	4	4	4
Fishing	3	3	4	4	4
Fishing Tournaments	5	3	4	3	3
Commercial Fishing	4	2	4	2	4

Table S-6: Summary of Alternative Impacts (Continued)

Parameter¹	Alternative A: No Action	Alternative B: Wildlife Focus	Alternative C: Public Use Focus	Alternative D: Wildlife and Integrated Public Use	Alternative E: Modified Wildlife and Integrated Public Use (New Preferred Alternative)
Fishing Floats	3	1	4	3	4
Interpretation and Environmental Education	3	2	5	4	4
Wildlife Observation and Photography	3	2	5	4	4
Recreational Boating, Camping, and Other Beach-Related Uses	5	1	4	4	5
Commercial Guiding and Tours	3	1	2	2	2
Refuge Access	3	3	4	4	4
Control of Dogs and Other Domestic Animals	3	2	5	4	4
Property Taxes	3	2	2	2	2
Refuge Administration and Operations	1	4	4	5	5
Cumulative					
Cumulative Impacts	2	4	3	4	4

1. The scale for summarizing impacts by parameter is as follows: 1= Most negative; 3= Neutral or No Impact; and 5= Most Positive