

U.S. Fish & Wildlife Service

North Platte

National Wildlife Refuge

*Draft Comprehensive
Conservation Plan and
Environmental Assessment*



North Platte National Wildlife Refuge

Draft Comprehensive Conservation Plan and Environmental Assessment

December 2000

Prepared by
U.S. Fish and Wildlife Service
North Platte National Wildlife Refuge
115 Railway Street, Suite C109
P.O. Box 1346
Scottsbluff, NE 69363-1346

Table of Contents

Legal Purpose and Vision	5
I. Introduction / Background	
Purpose of a Comprehensive Conservation Plan	6
North Platte National Wildlife Refuge History	6
Establishment and Administration	6
Wildlife and Habitat Management	11
Cultural Resources	17
Public Use and Environmental Education	17
Monitoring	17
The National Wildlife Refuge System	18
Mission, Goals, and Guiding Principles	18
Fish and Wildlife Service Mission:	18
National Wildlife Refuge System Mission:	18
National Wildlife Refuge System Goals:	18
Legal and Policy Guidance	21
Existing Partnerships	22
II. Planning Process	
Description	23
Planning Issues	24
Public Use	24
Invasive Species	24
Removing or Burying Overhead Power Lines	24
Water Rights	27
Funding and Staffing	27
Lands of Interest	27
III. Refuge and Resource Descriptions	
Socio-Economic Environment	28
Geographic / Ecosystem Setting	28
Climate	28
Air Quality	28
Geology	28
Refuge Resources	37
Soils	37
Water	37
Vegetation	38
Grasslands	38
Woodlands/Shrub	38
Plant Species of Management Concern	38
Exotic and Invading Vegetation	38
Summary of Basic Habitat Types on Each Refuge Unit	38
Wildlife	39
Endangered and Threatened Species	39
Species of Management Concern	39
Birds	39
Mammals	42
Amphibians and Reptiles	42
Fish	42
Invertebrates	42
Cultural Resources	43
Public Use and Environmental Education	43

IV. Refuge Goals, Objectives, and Strategies

Background	44
Endangered and Threatened Species	45
Fish and Wildlife	45
Upland Habitat	48
Wetlands	50
Public Use and Environmental Education	50
Cultural Resources	52
Community Involvement / Support Systems	52

V. Implementation and Monitoring

Funding and Personnel	53
Staffing Needed for Implementation	53
Funding Needed for Implementation	54
Step-down Management Plans	55
Refuge Management Policies and Guidelines	55
Partnership Opportunities	56
Monitoring and Evaluation	56
Plan Amendment and Revision	56

Appendix A. Glossary	57
Appendix B. Literature Cited/References	58
Appendix C. Legal and Policy Guidance	59
Appendix D. Operation and Maintenance Needs	61
Appendix E. Compatibility Determinations	63
Appendix F. List of Animal and Plant Species	66
Appendix G. Neotropical Migrants	71
Appendix H. Species of Management Concern	72
Appendix I. Waterfowl Use at Lake Minatare	73
Appendix J. Environmental Assessment	74
Appendix K. Mailing List	77
Appendix L. List of Preparers	78
Appendix M. Section 7	78

Maps (see NPLdrMaps.pdf file)

1. Vicinity Map	7
2. Base Map	9
3. Vegetation Map	13
4. Stateline Island Base Map	15
5. Public Use	19
6. Lake Alice Existing and Proposed Public Use Map	25
7. Refuge Unit Map	29
8. Morrill Island Base Map	31
9. Scottsbluff Island Base Map	33
10. Ecosystem Map	35

North Platte National Wildlife Refuge

Legal Purpose

North Platte National Wildlife Refuge was established in 1916 by Executive Order No. 2446 as a “preserve and breeding ground for native birds.”

Vision

“For if a link in nature’s chain be lost, another and another might be lost, till the whole system of things should vanish by piecemeal.”

–Thomas Jefferson

Public involvement and a review of legal mandates did not reveal a need for more or different kinds of wildlife on North Platte National Wildlife Refuge. However, the Refuge is not an island, independent of what goes on around it. It is also part of larger social and economic communities. Current trends in the use of private land will affect, and probably reduce, the kinds and amounts of habitat around the Refuge - habitat that is used by wildlife that also use the Refuge. And the community will grow, placing more demands on the Refuge for wildlife-dependent recreation and education. The Refuge must adapt and respond to these changes.

Thus, we envision a Refuge slightly larger in size, the purpose of which is to maintain in perpetuity a representative sample of the natural habitats and associated wildlife in this part of the Nebraska Panhandle, with emphasis on native birds. We see habitat in excellent condition, fewer exotic plants, secure water sources, and high quality public use facilities. We see a Refuge doing its part to support migratory birds enjoyed by people in States up and down the Central Flyway. We see effective on-site and off-site environmental education programs in partnership with local schools. We see an active partnership with surrounding landowners to help maintain habitat on private lands while accommodating land use and lifestyle changes. We see the Refuge as part of a healthy, growing community.

I. Introduction / Background

Purpose of a Comprehensive Conservation Plan

The National Wildlife Refuge System Improvement Act of 1997 requires that a Comprehensive Conservation Plan (CCP) be prepared for each unit of the National Wildlife Refuge System, and that the public has opportunity to be involved in preparing and revising those plans.

The primary purpose of a CCP is to define the goals and objectives that will guide long-term management of wildlife and habitat. The goals and objectives for North Platte National Wildlife Refuge are presented in Section IV.

Comprehensive planning creates an opportunity for neighbors, conservation groups and other State and Federal agencies to help identify and discuss natural resource issues, and to ensure the Plan meets the changing needs of wildlife and the public. For a complete discussion of the planning process, refer to the "Refuge Planning Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997 - May 25, 2000" (copies available at the Refuge Headquarters).

North Platte National Wildlife Refuge History

Establishment and Administration

The 2,909-acre North Platte National Wildlife Refuge (Refuge) was established in 1916 by Executive Order No. 2446 as a "preserve and breeding ground for native birds." It is located in the Nebraska Panhandle, within the Central Flyway, near Scottsbluff (Map 1) and is administered by the U. S. Fish and Wildlife Service (Service). The impetus for National Wildlife Refuge status was primarily fall concentrations of up to 250,000 mallards, 11,000 Canada geese, and bald eagles. The Refuge was, and still is, superimposed on Bureau of Reclamation (Reclamation) projects and remains subject to "Reclamation service uses" (see Appendix A, Glossary).

Originally, the Refuge included four Reclamation irrigation reservoirs which were constructed between 1910 and 1917. Three of these are still part of the Refuge: Lake Minatare - 737 acres; Winters Creek - 536 acres; and Lake Alice - 1,500 acres. The Little Lake Alice reservoir was removed from the Refuge System in 1961 by Public Land Order 2291.

In 1990, the Service, by Memorandum of Agreement with Reclamation, also assumed management of Stateline Island, a 136-acre diversion project on the North Platte River. It, too, is subject to Reclamation uses (Appendix C).

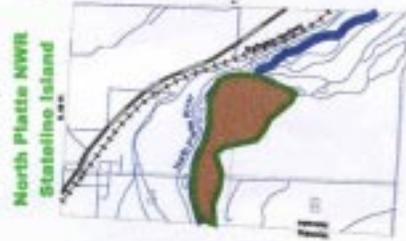
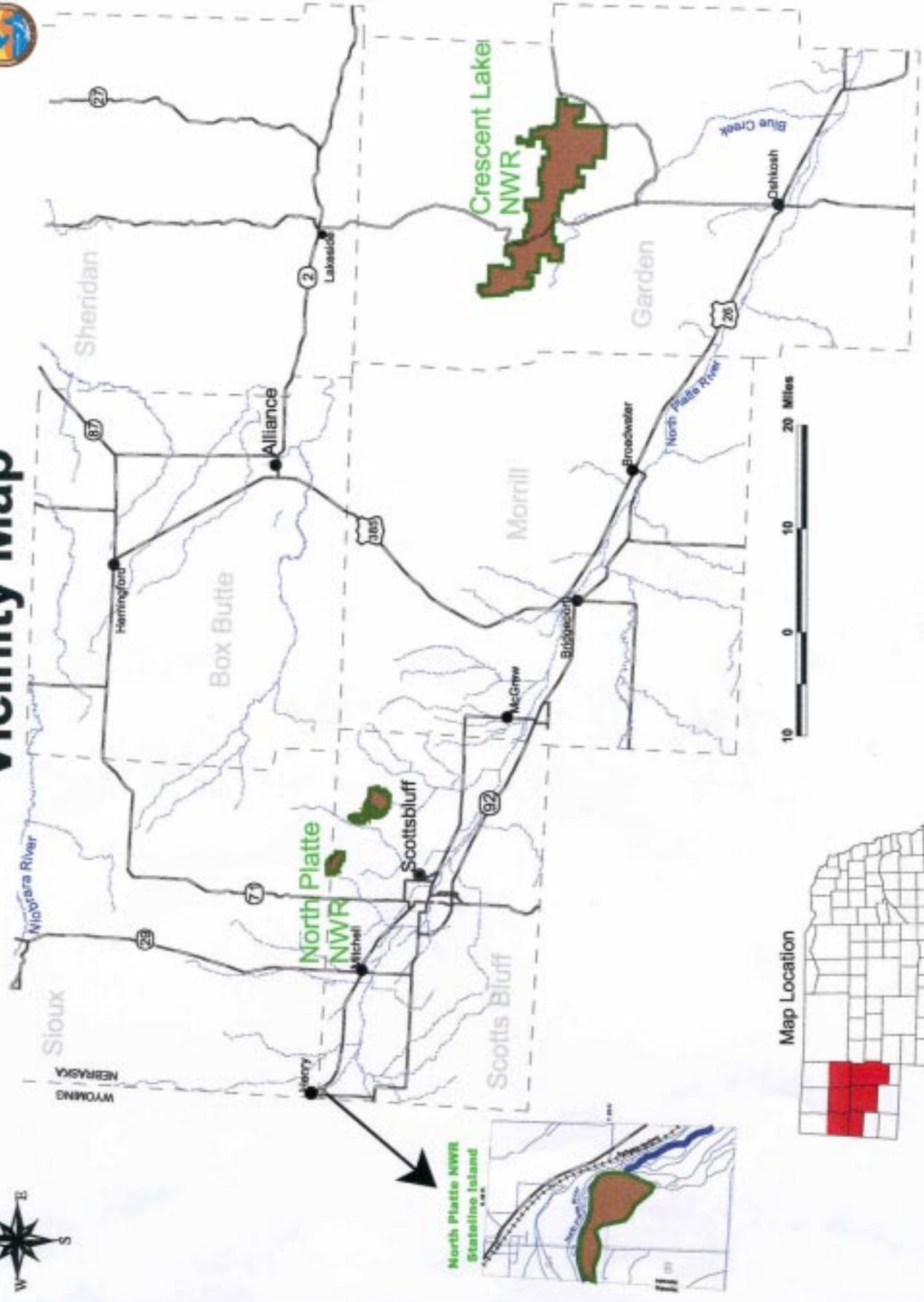
Today, the Refuge includes four dispersed management units, all of which are superimposed on Reclamation projects and subject to Reclamation uses (Map 2).

Originally, Refuge management was the responsibility of the Bureau of Biological Survey, now the Fish and Wildlife Service. All units, except Lake Minatare, were closed to the public year-round. The Lake Minatare Unit was open to public recreation (primarily fishing, boating, camping, and swimming) from May 16 to September 15; the north half of the Lake was closed to boating. There was no staff on-site.

Over the years, Service involvement faded, due primarily to the relatively small size of the Refuge, the distance from other staffed refuges, and the presence of Reclamation. A Lake Minatare "park" proposal was prepared in 1937 for Reclamation by the National Park Service. The proposal was updated and expanded in 1947 and again in 1963. The emphasis was on mass recreation such as camping, boating, picnicking, swimming, and seasonal cabins. The 1963 plan allowed the Nebraska Game and Parks Commission (NGPC) to assume control of recreation and fishery management, and to establish a State Recreation Area. The Service retained responsibility for wildlife. During this same time, Reclamation administered land use, primarily cattle grazing.



Vicinity Map



State of Nebraska

DRAFT

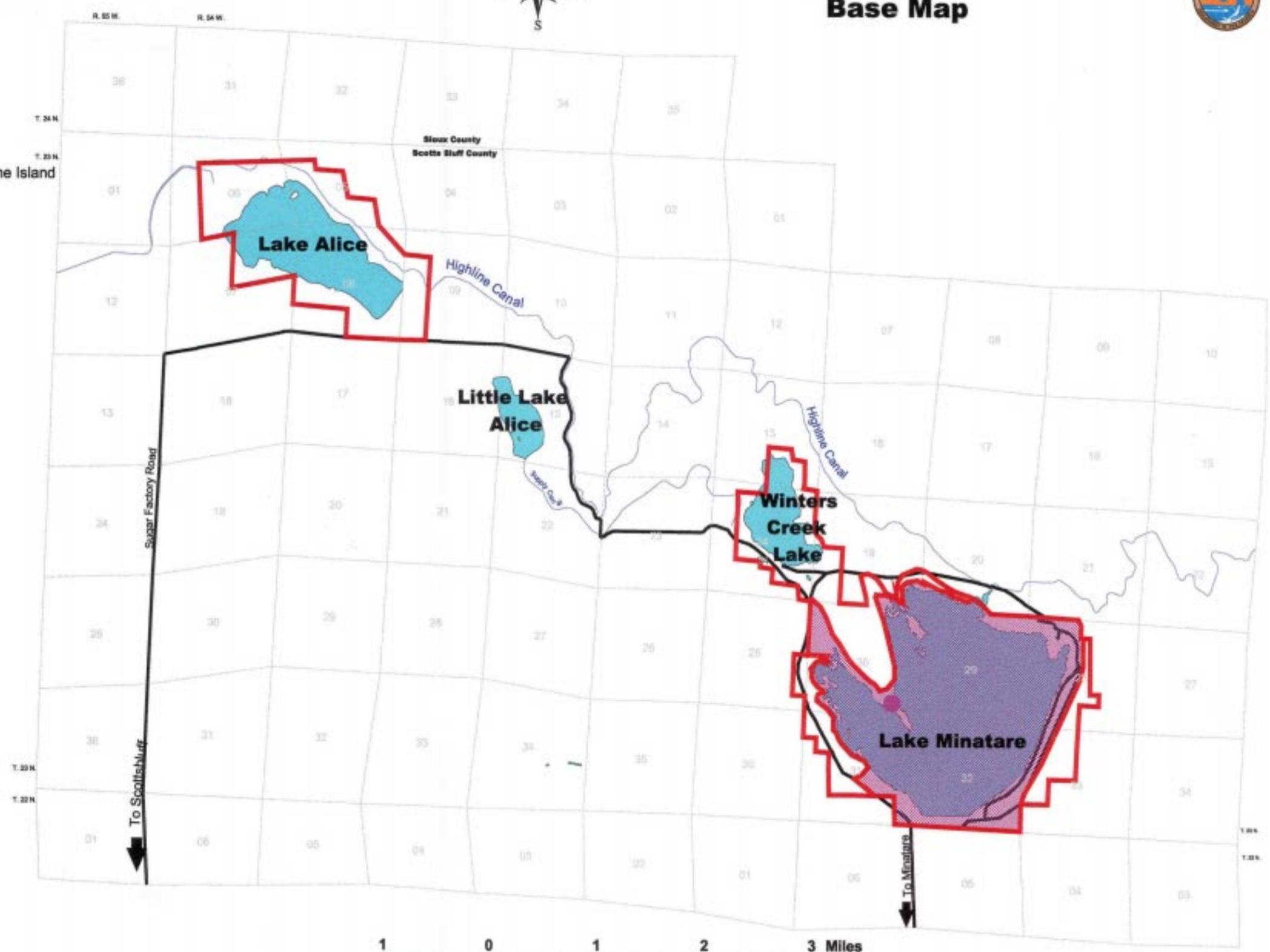
Map # 1 Vicinity Map

North Platte National Wildlife Refuge Base Map



← 20 miles to Stateline Island

- LEGEND**
- Roads
 - Canals
 - Open Water
 - North Platte NWR Boundary
 - State Recreation Area
 - Nebraska Game & Parks Headquarters



DRAFT

Map # 2 Base Map

The 1976 Game Range Bill (Public Law 94-223) mandated that all National Wildlife Refuges be managed by the Secretary of Interior through the Fish and Wildlife Service. A 1985 agreement with Reclamation granted the Service primary jurisdiction, subject to Reclamation uses.

Until 1990, all management activities were conducted from the Crescent Lake National Wildlife Refuge, 100 miles to the east. The first on-site refuge manager was located in Scottsbluff in 1990 under the direction of the Crescent Lake Refuge. The Crescent Lake/North Platte National Wildlife Refuge Complex was formally established and the headquarters moved from Crescent Lake Refuge to Scottsbluff in 1992.

Also in 1992, several major conservation organizations sued the Department of the Interior over improper uses of National Wildlife Refuges, uses that were not compatible with the purposes of those refuges. The mass recreation at the Lake Minatare State Recreation Area was among the uses mentioned in that lawsuit and was, in fact, found incompatible. Because of the long history of recreation at Lake Minatare and its importance to the community, the affected area (2,470 acres) was removed from the Refuge System by Congress in 1996 (Public Law 104-212), with the condition that the area remain closed during fall and winter months to provide sanctuary for migratory birds (USFWS, 1995).

Wildlife and Habitat Management

Populations Management. The Refuge was established primarily because of its importance for migrating and wintering waterfowl, bald eagles, and other migratory birds (see Section III). Populations management consists primarily of providing sanctuary during the critical fall and winter months. In some years, peak numbers of fall migrating mallards approach 250,000. One pair of bald eagles has nested annually on the Refuge since 1993; the nesting area is closed year-round. The Refuge has never been open to hunting or trapping.

Fisheries are managed by the NGPC through a cooperative agreement with the Service (Appendix C). Winters Creek is stocked with yellow perch, bluegill, walleye, largemouth bass, and channel catfish.

Wetland Management. The Refuge is superimposed on Reclamation projects and the Service has no control over water. The two Refuge impoundments, along with Little Lake Alice and Lake Minatare, make up what Reclamation refers to as the Inland Lakes. The Inland lakes accrue water from gains, to the North Platte River, downstream of Alcova Reservoir during the months of October, November, and April up to a total of 46,000 acre-feet. These gains may be stored in Glendo and Guernsey Reservoirs and transferred to the Inland Lakes when Pathfinder Irrigation District (PID) resumes spring irrigation. By late summer, wide sand-flats typically surround Lake Alice and Lake Minatare as they near “dead pool.”

Because of this dramatic fluctuation (up to 20 vertical feet), emergent aquatic vegetation is almost nonexistent in Lake Minatare and Lake Alice. Winters Creek Lake is a natural wetland that was altered around 1916 to serve as a storage reservoir. It supports an attractive mix of pondweed, bulrush, filamentous algae, and cattail. Other waterfowl brood and marsh bird habitat is limited to two small adjoining seepage marshes and to some of the more secluded bays of the reservoirs.

Since 1992, PID has been able to leave about 1,000 acre-feet of water in storage at Lake Alice going into the fall migration season. This additional water significantly benefits waterfowl when compared to prior years when the lake was immediately drawn down to dead pool at the close of the irrigation season (late September). As it is, the 1,000 acre-feet bonus lasts only about three months due to seepage.

Upland Habitat Management. The Refuge includes approximately 1,625 acres of grassland, mostly native prairie. Until 1985, most of these grassland areas were leased annually by Reclamation for season-long grazing (May 15 - November 30). Since 1985, restoring native prairie has been the priority. Grazing has been significantly reduced, and prescribed burning was introduced as a management tool in 1994. Plant vigor and composition is improving and more residual cover is available in spring for nesting birds (see Section IV). Management is guided by a series of "step-down plans" (see Section V).

In 1988, refuge managers initiated a point-sampling method (Savory, 1986), along with visual obstruction readings (VOR) and exclosures, to evaluate upland management practices. A great deal of expertise, time, and consistency is required to conduct such monitoring properly. It was discontinued in 1993 due to insufficient staff.

Grassland management consists of a combination of rest, grazing, and prescribed burning. Grazing is a tool used to discourage exotic, cool season grasses and encourage native, warm season grasses. For instance, in 1999, 400 acres were spring grazed using a short-duration, high intensity treatment from May 1 to June 15. Also in 1999, 130 acres were burned to invigorate native grasses and forbs, control exotic species, and reduce Russian olive seedlings.

Farming and food plots do not occur on the Refuge.

Wildfires are controlled by Refuge firefighters and by local fire departments under cooperative agreements. Wildfires burned 20 acres in 1999, a typical year.

About 265 acres are tree covered. Refuge lakes are at least partially surrounded by a belt of trees, primarily even-aged cottonwood and green ash. These areas also serve as green tree reservoirs during infrequent full-pools. No specific management has been employed. A lack of cottonwood regeneration around the reservoirs is an emerging problem since, without new growth, this habitat type will eventually disappear (Map 3).

Stateline Island is heavily forested with cottonwood and green ash. Prescribed burning of the understory was implemented in 1994 to invigorate native grasses and forbs and control exotic species (Map 4).

Invasive Species Management. Several exotic and invasive plants exist on the Refuge. Most were not controlled until about 1986. An integrated pest management approach is now in place which includes a combination of prescribed burning, mechanical removal, chemical applications, and insect releases.

Canada and musk thistle are treated with a combination of insect releases (gall fly, seed-head weevil and stem-mining weevil) and chemical applications by the local county weed authority. Russian olive, a very aggressive grassland invader, is controlled by mechanically removing the plants and treating the residual with herbicide. Control efforts began in 1993, and only 2 percent of the 200 acres infested have been treated.

Salt cedar is a potential problem at Stateline Island; small numbers of young plants have been removed, but nearby areas along the North Platte River are more heavily infested.

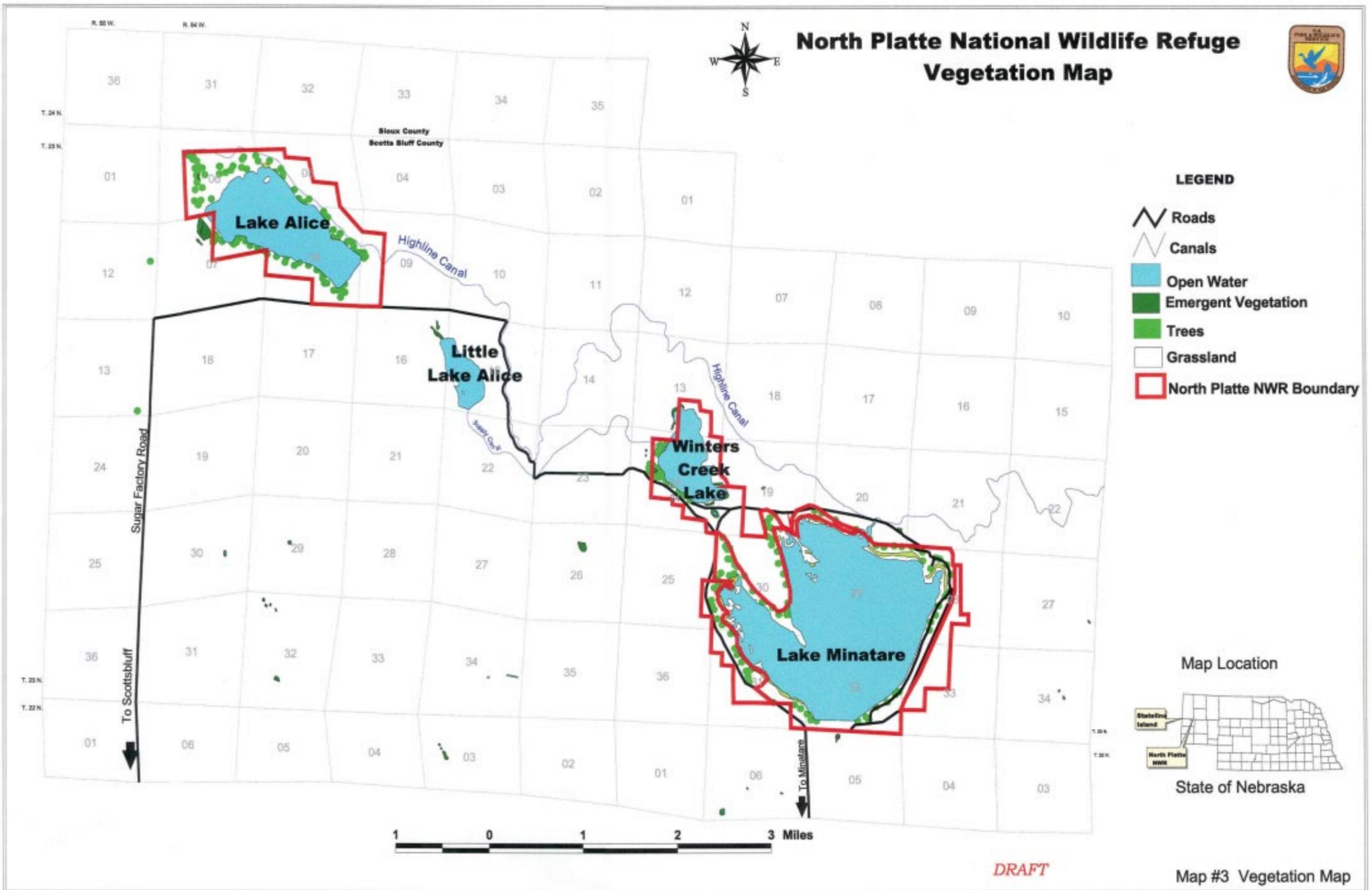
North Platte National Wildlife Refuge Vegetation Map



LEGEND

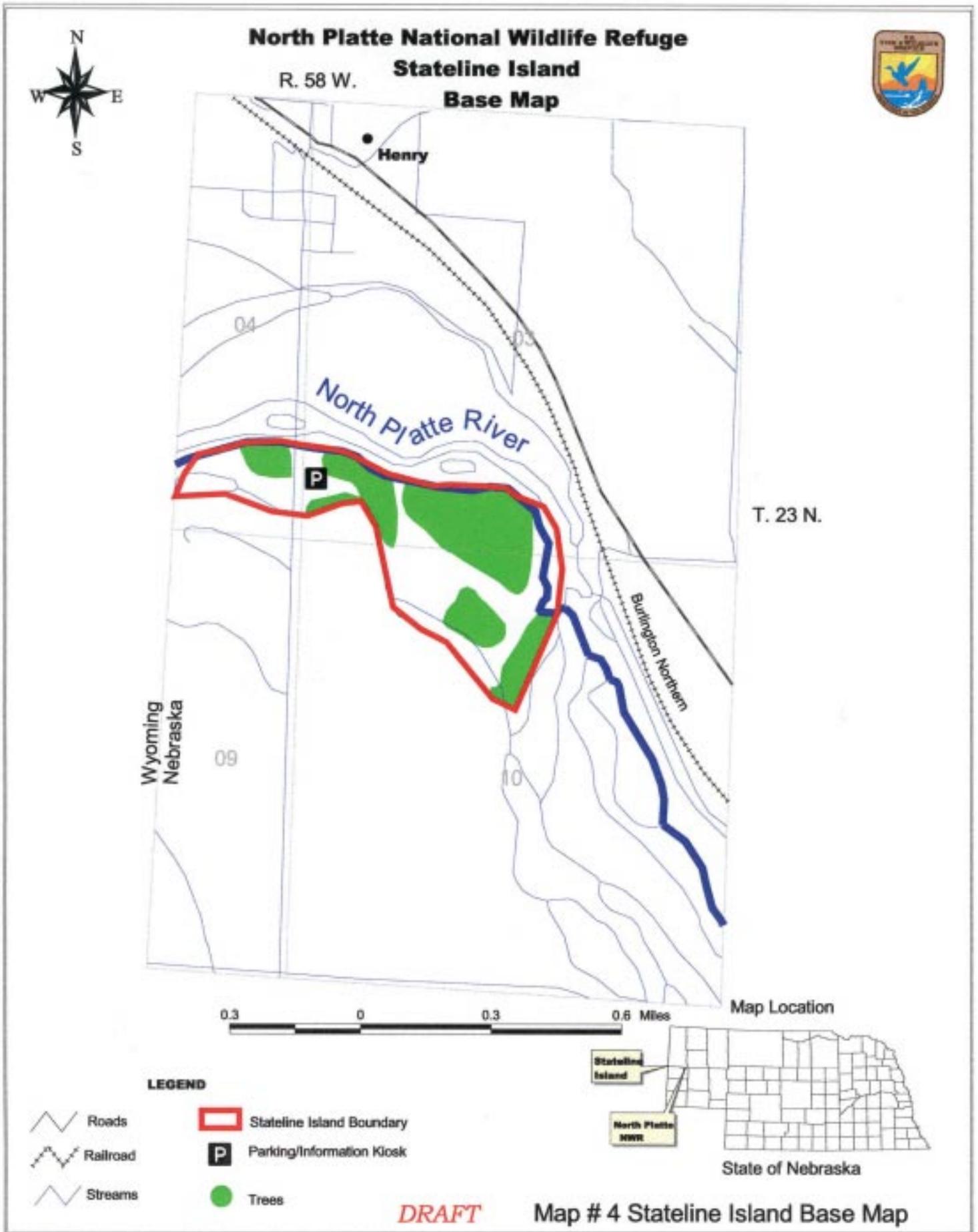
- Roads
- Canals
- Open Water
- Emergent Vegetation
- Trees
- Grassland
- North Platte NWR Boundary

Map Location



DRAFT

Map #3 Vegetation Map



Cultural Resources

Historic, archaeological, and paleontological resources are protected by Federal laws (Appendix C). The Bureau of Reclamation, as the agency with primary jurisdiction, is responsible for general surveys and overall protection and preservation. The Service is responsible for surveys of areas affected by refuge management, and for protection and/or mitigation of any affected resources. No comprehensive cultural resource surveys have been conducted on the Refuge and, at this time, no significant cultural resources are known to occur on the Refuge.

Public Use and Environmental Education

When the Refuge was established in 1916, all units, with the exception of Lake Minatare, were closed as year-round sanctuaries. Today, the Refuge offers wildlife-dependent recreation opportunities from January 15 through September 30 on the Winters Creek and Lake Minatare units, and May 15 through September 30 on the Lake Alice Unit (Map 5).

Approximately 4,500 people visited the Refuge in 1999, compared to 3,700 in 1987. About 45 percent of these visitors engaged in interpretation and/or nature observation activities, 31 percent in formal environmental education, and 42 percent in fishing at Winters Creek Lake (some visitors engage in multiple activities during any given visit). The Lake Minatare State Recreation Area is adjacent to the Lake Minatare Unit and received about 205,000 visits in 1999, up 10 percent from 1998 (McCoy, per. com.).

Off-site programs conducted by Refuge staff are also an important part of environmental education. In 1999, about 2,100 students, parents, and educators participated in programs such as Water Wonders, Branch Out, Earth Stewards, Environ-Art, and the Nebraska Jr. Duck Stamp Program. Some requests for educational programs and technical assistance were denied due to staffing shortages.

Kiosks are located at five major entry points. They contain general Refuge information, maps, specific information on wildlife and habitat management, and leaflet dispensers.

Fishing is permitted on Refuge reservoirs. About 2,000 people fished on the Refuge in 1999, mostly on Winters Creek Lake. Lake Alice cannot sustain a fishery because most water is removed for irrigation by late summer and is not replaced until spring. Lake Minatare proper, which is no longer within Refuge boundaries, is much larger than Winters Creek Lake and receives about 80,000 fishing visits annually.

Sport hunting and trapping have never been permitted on the Refuge.

Stateline Island is open year-round. Fishing is permitted from Stateline Island in the North Platte River.

Monitoring

The first refuge manager assigned exclusively to the Refuge occurred in 1990. The present staff is small (see Section V) and only very basic wildlife and plant surveys are conducted on a routine basis. These include: biweekly wildlife counts along established routes; census of goose tubs and wood duck boxes; monitoring bald eagle nest activities; and monitoring for disease outbreaks. Much of this is conducted by a biological technician on an intermittent appointment and one volunteer. More and better monitoring is needed to determine the response of wildlife and habitat to applied management.

The National Wildlife Refuge System

Mission, Goals, and Guiding Principles

The National Wildlife Refuge System is the world's largest collection of lands set aside specifically for the protection of wildlife. The first unit of the Refuge System was created in 1903, when President Theodore Roosevelt designated 3-acre Pelican Island, a pelican and heron rookery in Florida, as a bird sanctuary. Today, the Refuge System includes over 520 National Wildlife Refuges and Waterfowl Production Areas, encompassing more than 93 million acres and located in all 50 States and a number of U.S. Territories.

The Refuge System provides habitat for native mammals, birds, reptiles, amphibians, fishes, invertebrates, and plants - "trust resources" for which the Federal government is ultimately responsible. It plays a vital role in preserving endangered and threatened species, preventing species from becoming threatened, and offers wildlife-dependent recreation for over 34 million visitors annually.

Fish and Wildlife Service Mission:

"To work with others to conserve, protect, and enhance fish, wildlife, and plants, and their habitats for the continuing benefit of the American people." To fulfill this mission, Congress has charged the Service with conserving and managing migratory birds, endangered species, anadromous and inter-jurisdictional fish, and certain marine mammals. The Service carries out these responsibilities through several functional entities, one of which is the National Wildlife Refuge System.

National Wildlife Refuge System Mission:

"To administer a 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" (National Wildlife Refuge System Improvement Act of 1997, Public Law 105-57).

National Wildlife Refuge System Goals:

1. To preserve, restore, and enhance in their natural ecosystems all species of animals and plants that are endangered or threatened with becoming endangered;
2. To perpetuate the migratory bird resource;
3. To preserve a natural diversity and abundance of fauna and flora on refuge lands; and
4. To provide an understanding and appreciation of fish and wildlife ecology and man's role in his environment, and provide visitors with high quality, safe, wholesome, and enjoyable recreation experiences oriented toward wildlife to the extent these activities are compatible with the purposes for which the refuge was established.

Individual refuges are important in and of themselves. They support resident, as well as migratory, wildlife and provide enjoyment for local people. But perhaps they are most important for their collective benefits. Together, they form a network of lands spanning the entire continent - supporting birds migrating from Alaska and Canada to the southern States and points south, providing for the conservation of trust resources, providing enjoyment for people throughout the United States and neighboring countries. For example, refuges in North and South Dakota provide wetland and grassland habitats critical to breeding and migrating ducks as required by international treaties with Canada and Mexico. Refuges in Louisiana and Texas provide wintering habitat for these same birds. Still other refuges provide for endangered and threatened plants or animals that exist in unique habitats which occur in very few locations. And collectively, they help prevent species from becoming threatened or endangered by securing habitat in all or portions of a species range. The network is critical; a deficiency in one location may affect wildlife in other locations.

North Platte National Wildlife Refuge Public Use Map



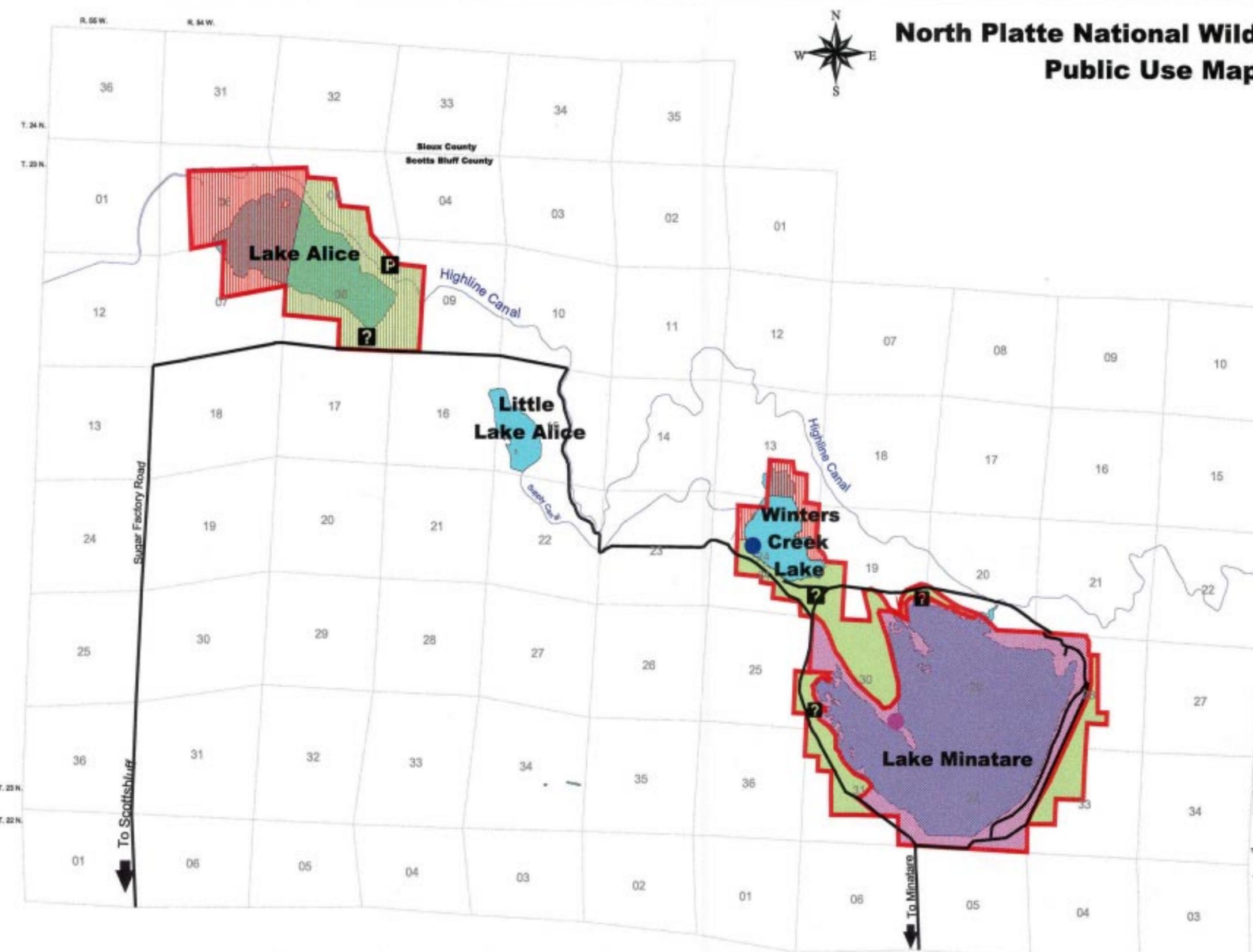
LEGEND

- Roads
- Canals
- Open Water
- North Platte NWR Boundary
- State Recreation Area
- Closed to Public
- Open Jan. 15 - Sept. 30
- Open May 15 - Sept. 30
- Information Kiosk
- Parking
- Boat Ramp
- Nebraska Game & Parks Headquarters

Map Location



State of Nebraska



DRAFT

Map #5 Public Use Map

Legal and Policy Guidance

National Wildlife Refuges are guided by: The mission and goals of the National Wildlife Refuge System; the legal purpose of the refuge unit as described in the establishing legislation or executive orders; international treaties; Federal laws and regulations; and Service policies (Appendix C).

North Platte Refuge is guided also by a number of agreements with other agencies and by the conditions presented in Final Environmental Assessments and Compatibility Determinations (Appendices J and E respectively).

The National Wildlife Refuge System Administration Act of 1966, as amended, provided guidelines and directives for administration of the National Wildlife Refuge System. Use of any area within the Refuge System was permitted, provided that such uses were compatible with the major purposes for which such areas were established.

The National Wildlife Refuge System Improvement Act of 1997 amends the Refuge System Administration Act by including a unifying mission for the Refuge System, a formal process for determining compatible uses on refuges, and a requirement that each refuge will be managed under a Comprehensive Conservation Plan. This Act states that wildlife conservation is the priority of Refuge System lands and that the Secretary of the Interior shall ensure that the biological integrity, diversity, and environmental health of refuge lands are maintained. Each refuge must be managed to fulfill both the specific purposes for which it was established and the mission of the Refuge System.

Further, the Refuge Improvement Act defines the wildlife-dependent recreational uses as: hunting and fishing, wildlife observation and photography, environmental education and interpretation. (Specific details regarding additional amendments are available through the Refuge or Regional Office.)

Lands within the Refuge System are different from other public lands in that they are closed to all public uses unless specifically and legally opened. Unlike other Federal lands that are managed under a multiple-use mandate (i.e., national forests administered by the U.S. Forest Service and public lands administered by the U.S. Bureau of Land Management), the Refuge System is managed specifically for the benefit of fish and wildlife resources.

“Compatibility” is a legal term which must be clearly understood. By Federal law, all uses of national wildlife refuges, including wildlife-dependent recreational activities, must be formally determined to be “compatible.” A compatible use is defined as a use that, in the sound professional judgement of the refuge manager, will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge. Sound professional judgement is further defined as a finding, determination, or decision that is consistent with the principles of sound fish and wildlife management and administration, available science and resources (funding, personnel, facilities, and other infrastructure), and adherence with applicable laws. No use of a national wildlife refuge may be allowed unless determined to be compatible.

Uses that have been determined to be compatible for North Platte Refuge include: environmental education and interpretation, wildlife observation and photography, sport fishing (including from boats with non-combustion engines), and upland habitat management tools.

Existing Partnerships

The North Platte Refuge staff works with:

- Bureau of Reclamation and its agents, Pathfinder and Farmers Irrigation Districts.
- Nebraska Game and Parks Commission in fisheries management and law enforcement.
- The University of Nebraska/Panhandle Extension and Research Center in coordinated integrated pest management activities.
- Educational Service Unit #13 in environmental education.
- Wildcat Audubon Society through their “adopt-a-refuge” program.
- Scotts Bluff National Monument in prescribed burning.
- Scotts Bluff County Fire Association in wildfire suppression.
- Private landowners through the Fish and Wildlife Service Partners for Fish and Wildlife Program.
- The Natural Resource Conservation Service in the Wetland Reserve Program.

II. Planning Process

Description

Key steps in the comprehensive planning process are: (1) preplanning; (2) identifying issues and developing a vision; (3) gathering information; (4) analyzing resource relationships; (5) developing alternatives and assessing environmental effects; (6) identifying a proposed alternative; (7) publishing a draft plan and soliciting public comments; (8) reviewing comments and making appropriate changes to the draft; (9) preparing the final plan for approval by the Region 6 Regional Director; (10) publishing the final plan; and finally (11) implementing the plan.

The project leader for the Crescent Lake/North Platte National Wildlife Refuge Complex and the manager of the North Platte Refuge were assigned primary responsibility for planning in June, 1998. An open house/scoping session was held on July 17, 1998, to inform the public of the planning process and to seek ideas on a variety of Refuge programs and issues. About 150 invitations were mailed to local and national stakeholders (educators, permittees, neighbors, other agencies and non-profit organizations). The general public was also invited through widely published/broadcast news releases. Information could also be obtained by contacting the Refuge Manager and comments could be submitted in writing.

Participants in the open house were provided an opportunity to learn about the Refuge, talk with Service representatives and share their ideas. Refuge staff also met personally with the Wildcat Audubon Society, the West Nebraska Sportsman Association, and the Scottsbluff Lions Club to discuss the CCP process.

In November 1998, the Project Leader formed a Review Team from a pool of known stakeholders, biologists, and planners:

John Esperance, FWS, Region 6 Regional Office Planning Staff
(Team Leader)
Larry Shanks, FWS, Refuge Supervisor, Region 6/ CO-KS-NE-UT
Sheri Fetherman, FWS, Chief, Education/Visitor Services, Region 6
Lorrie Beck, FWS, Education/Visitor Services, Region 6
Rhoda Lewis, FWS, Regional Archaeologist, Region 6
Wayne King, FWS, Wildlife Biologist, Region 6
Dr. Jim Stubbendieck, Director, Center for Great Plains Studies,
University of Nebraska at Lincoln (UNL)
Ritch Nelson, NGPC, Panhandle District Manager, Wildlife Division
Jack Peterson, NGPC, Panhandle District, Fisheries Supervisor
Dale Henry, FWS-Retired

The final CCP will guide management of the North Platte Refuge for the next 15 years. The Plan will be reviewed during routine Refuge inspections and programmatic evaluations. When changes are needed, the level of public involvement and associated NEPA documentation will be determined by the Project Leader. The entire Plan will be formally reviewed and revised at least every 15 years.

Planning Issues

The following issues were identified during the public scoping process and through discussions with review team members. Some additional discussion is found in the Environmental Assessment (Appendix J).

Public Use

Liberalization of Closure Dates. Present closure dates are: October 1 through January 14 for the Lake Minatare and Winters Creek and October 1 through May 14 for Lake Alice. These may be more restrictive than necessary to protect migratory birds. Changing the closure to October 15 through January 14 on these three units would allow for more wildlife-dependent public use. The Service would support the same dates for the Lake Minatare State Recreation Area should the Nebraska Game and Parks Commission and Bureau of Reclamation consider such a change. Stateline Island would remain open year-round.

Liberalization of Closed Areas. Changes in public use at the Lake Alice Unit have been suggested, primarily elimination of the closure of the west half of the Unit. Such action would expand non-motorized access for wildlife-dependent recreation. Other recommendations include closing the little-used dirt road along the south side of the lake to vehicles, and constructing an observation overlook along the south end of the east dam. (See Map 6).

Hunting. Hunting of pheasants, deer, and small game at Lake Alice from January 15 through October 14, in accordance with State regulations, may be compatible with the purposes of the Refuge. In western Nebraska, the Refuge is the only sanctuary available to large numbers of waterfowl during the hunting season. Because of this, hunting native birds (waterfowl, sharp-tailed grouse, mourning dove) may not be compatible with the refuge purpose "as a preserve and breeding ground for native birds." Public hunting on the other units may not be compatible because of their small size, although archery hunting may be considered. Public safety would have to be carefully examined. Before the Refuge can be opened to hunting, a hunting plan must be approved by the Director of the Service and the proposal published in the Federal Register. The public would be invited to participate at all stages.

Invasive Species

Russian olive, salt cedar, Canada thistle, and musk thistle are invading native habitat.

Removing or Burying Overhead Power Lines

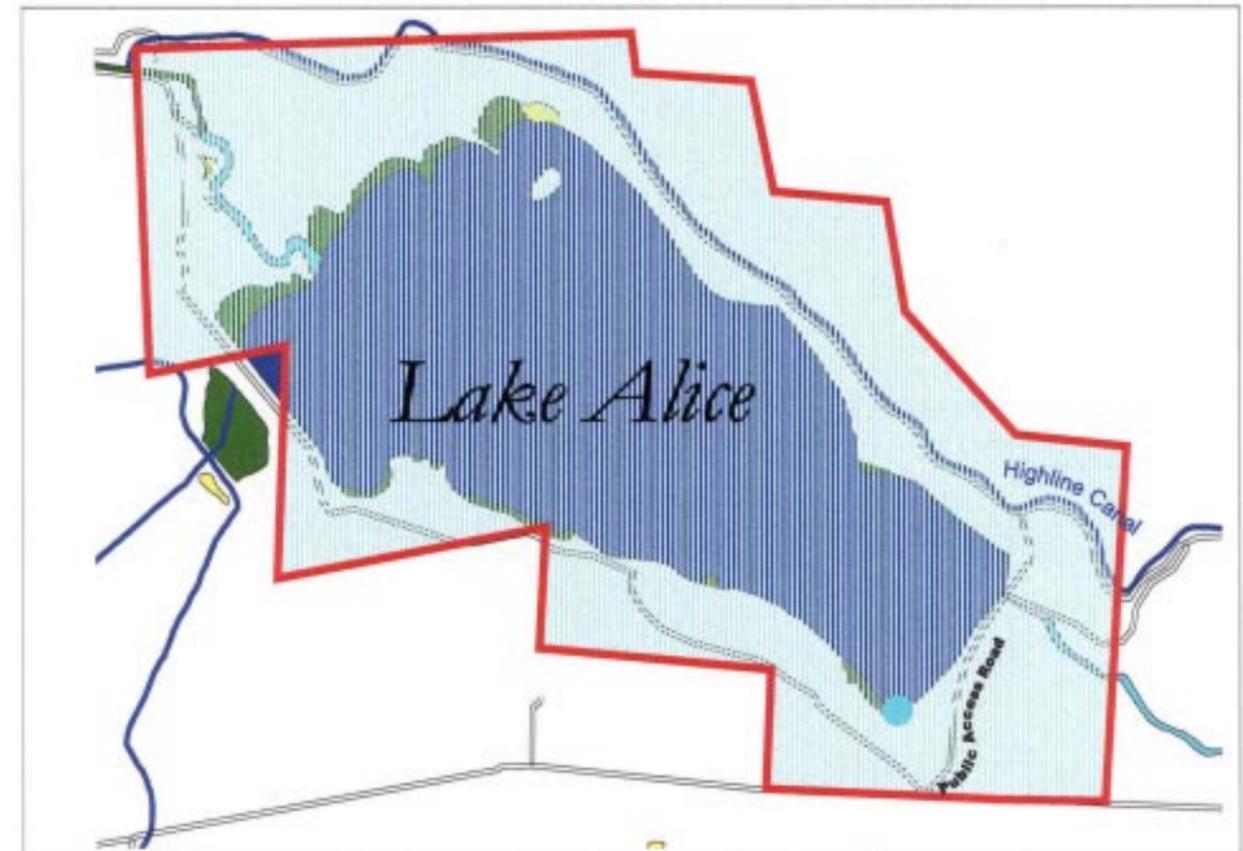
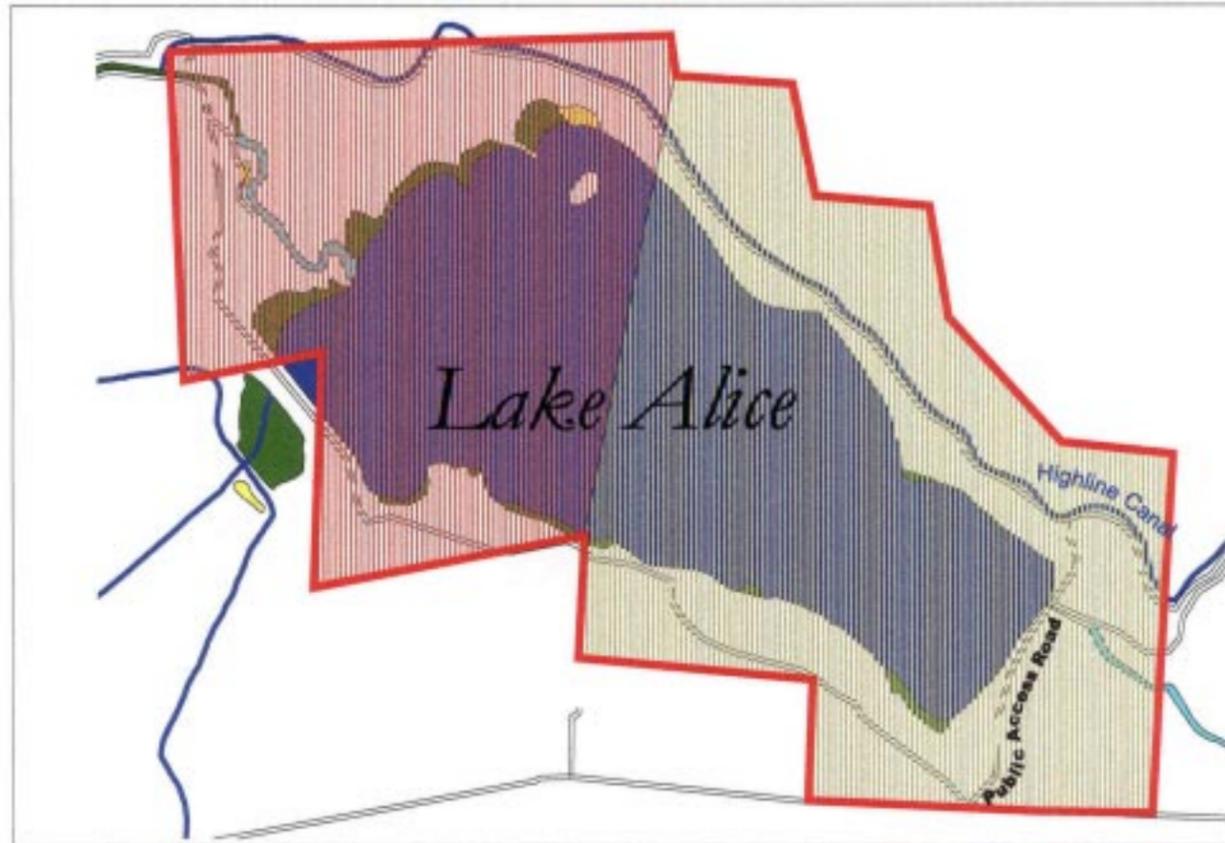
About six miles of overhead power lines are a prominent intrusion. Power company maintenance activities physically affect the environment and the lines pose a threat to birds attracted to the Refuge (Armbruster, 1990).

North Platte National Wildlife Refuge Lake Alice Unit

Scottsbluff County, Nebraska

Existing

Proposed



DRAFT

Map # 6 Lake Alice Existing and Proposed Public Use Map

Water Rights

Both fish and wildlife would benefit from additional and stable water in the Inland Lakes, particularly at Lake Alice. The United States asserts a Federal reserved water right for the Refuge, subject to Bureau of Reclamation uses, for sufficient water to provide a preserve and breeding ground for native birds. The right carries a priority date of August 21, 1916, the date the Refuge was established, but has not been quantified or pursued.

Substantial leaking occurs through the Lake Alice lakebed and, thus, storage is minimized by water users who cannot afford a loss in their allocation of irrigation water. As a result, potential improvements to the fisheries and wildlife habitat in this Unit goes wanting.

Funding and Staffing

Some people expressed concern that the Service may not be allocated sufficient money to implement all of this Plan. Refuge operations are always subject to funds and personnel appropriated by Congress. Congress has instructed the Service to assess the condition of the National Wildlife Refuge System and to prepare Comprehensive Conservation Plans which include needed funds and staffing (see Section V). The Service will implement these plans to the extent funds and personnel are available.

Lands of Interest

Winters Creek Expansion. The acquisition boundary approved by the Director of the Service in April, 1990 would add 200 acres to the Winters Creek Unit (see Map 7). This site is needed to meet the interpretation and education objectives of the Refuge and is the preferred site for a visitor contact station. The habitat is primarily grassland (80 percent) and wetland (10 percent). Additional protection and management would benefit all wildlife now using the area. Purchase would be from willing sellers only.

Morrill Island. The Service holds title to this 100-acre island in the North Platte River (Map 8). An adjoining landowner disputes this title. The Service has requested, and is waiting for, guidance from the Justice Department before initiating active management. While this particular tract does not lend itself well to public access, habitat would be improved by Service management and protection. Species that would benefit from Service protection include many neotropical birds, waterfowl, and bald eagles.

The following properties are of interest to the Service in the future.

In the future, the Refuge staff may look at short-grass uplands and wetlands adjoining the Lake Alice Unit which are of interest for possible private-lands habitat improvement projects, grassland easements, and/or acquisition from willing sellers. Other "roundout" acquisitions that would improve general administration of the Refuge include the Winters Creek outlet area (Map 7) and the Lake Alice west dam. No planning is scheduled for this parcel at this time.

Scottsbluff Island. The Fish and Wildlife Service has expressed interest to the Bureau of Land Management for withdrawal from the public domain of this 100-acre island in the North Platte River (Map 9). BLM has not acted on the request due to a moratorium imposed by the Justice Department. This tract is near Scottsbluff and Gering and would be an ideal site for local teachers and the Refuge staff to conduct environmental education programs. Species expected to benefit from Service protection include a variety of neotropical birds, waterfowl, and bald eagles. Other public uses may include interpretive hiking, wildlife viewing, and fishing in the North Platte River. After legal direction and opinion is given by the Justice Department, the Service will schedule planning efforts.

III. Refuge and Resource Descriptions

Socio-Economic Environment

The population of Scotts Bluff County is 36,000. Of this number, 26,000 live in the nine communities within the County. The twin cities of Scottsbluff/Gering have a combined population of 22,900. The entire County population lives within 20 miles of a Refuge unit.

According to the Northeast Panhandle Economic Development Report (Panhandle Area Dev. Dist., ca 1998), the population of Scotts Bluff County will increase to about 41,200 by 2010 (up 13.5 percent). The population of the 11-county Northeast Panhandle will increase from 90,500 in 1997 to 95,350 in 2020 (up 5.3 percent). This indicates that the more rural counties surrounding the Refuge may actually lose population in the next 20 years.

Scottsbluff/Gering is a regional trade center for the Nebraska Panhandle and parts of eastern Wyoming. Agriculture is the primary economic activity. Major crops are sugar beets, beans, corn, and alfalfa. Construction, manufacturing, and retail merchandising are increasing in importance.

Geographic / Ecosystem Setting

The 2,909-acre Refuge includes four geographically separate units, three of which are superimposed on or adjoining Bureau of Reclamation irrigation reservoirs. A fourth unit, Stateline Island, is a Reclamation diversion project along the North Platte River adjoining the Wyoming State line.

In 1995, the Service adopted an "ecosystem approach to natural resource management," and identified 52 ecosystems within the United States (USFWS, 1994). North Platte Refuge is in the Platte/Kansas Rivers Ecosystem (Map 10). Interdisciplinary teams have identified the primary areas of concern in each ecosystem. In the Platte/Kansas Rivers Ecosystem those are:

- Prairie Grassland restoration and preservation
- Species of Concern (rare species)
- Native fishes, small fishes and mussels
- Water Quality
- Water Quantity

This Plan, when implemented, will contribute to the goals and objectives of the Platte/Kansas Rivers Ecosystem.

Climate

The general climate is characteristic of the high plains. Average annual precipitation is about 14.5 inches. The average January temperature is 23.8 degrees Fahrenheit, while the average in July is 72.8 degrees Fahrenheit. Temperature extremes have ranged from -37 to 108 degrees Fahrenheit. Humidity is relatively low and prevailing winds are west to northwest in winter and east to southeast in summer. Winter winds are occasionally warmed by the down slope effect from the higher elevations to the west and bring rapid warming and melting of snow. The growing season is 135 day; the last killing frost is in mid-May and the first in mid-September.

Air Quality

No known air quality problems exist. The strategic plan for Scotts Bluff County is to "maintain the level of air quality throughout the area" (Scotts Bluff County, 1999).

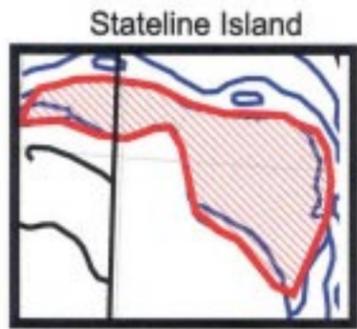
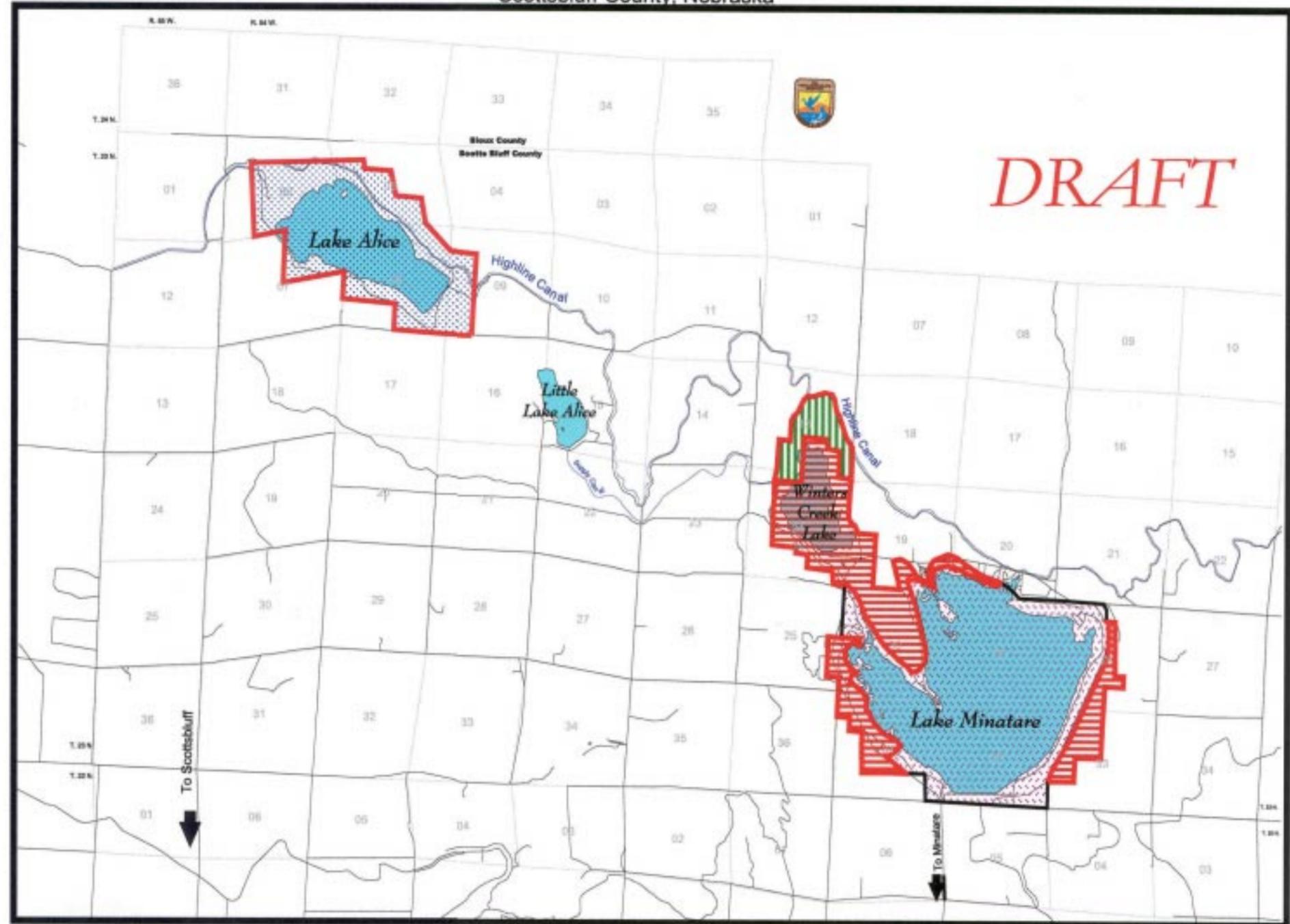
Geology

The Refuge is located in the central part of the High Plains Region. The three reservoir units lie on a terrace or bench just north of the North Platte River Valley between two bedrock outcrops. The area has numerous gravel veins, an indication it is a remnant of an old alluvial terrace. Stateline Island is in the North Platte River floodplain. The general landscape surrounding the Refuge is nearly level to rolling prairie.

North Platte National Wildlife Refuge

Scottsbluff County, Nebraska

DRAFT



20 Miles to
Stateline Island

Legend

Refuge Units

- Lake Alice
- Lake Minatare
- Winters Creek
- State Recreation Area
- Stateline Island
- Open Water



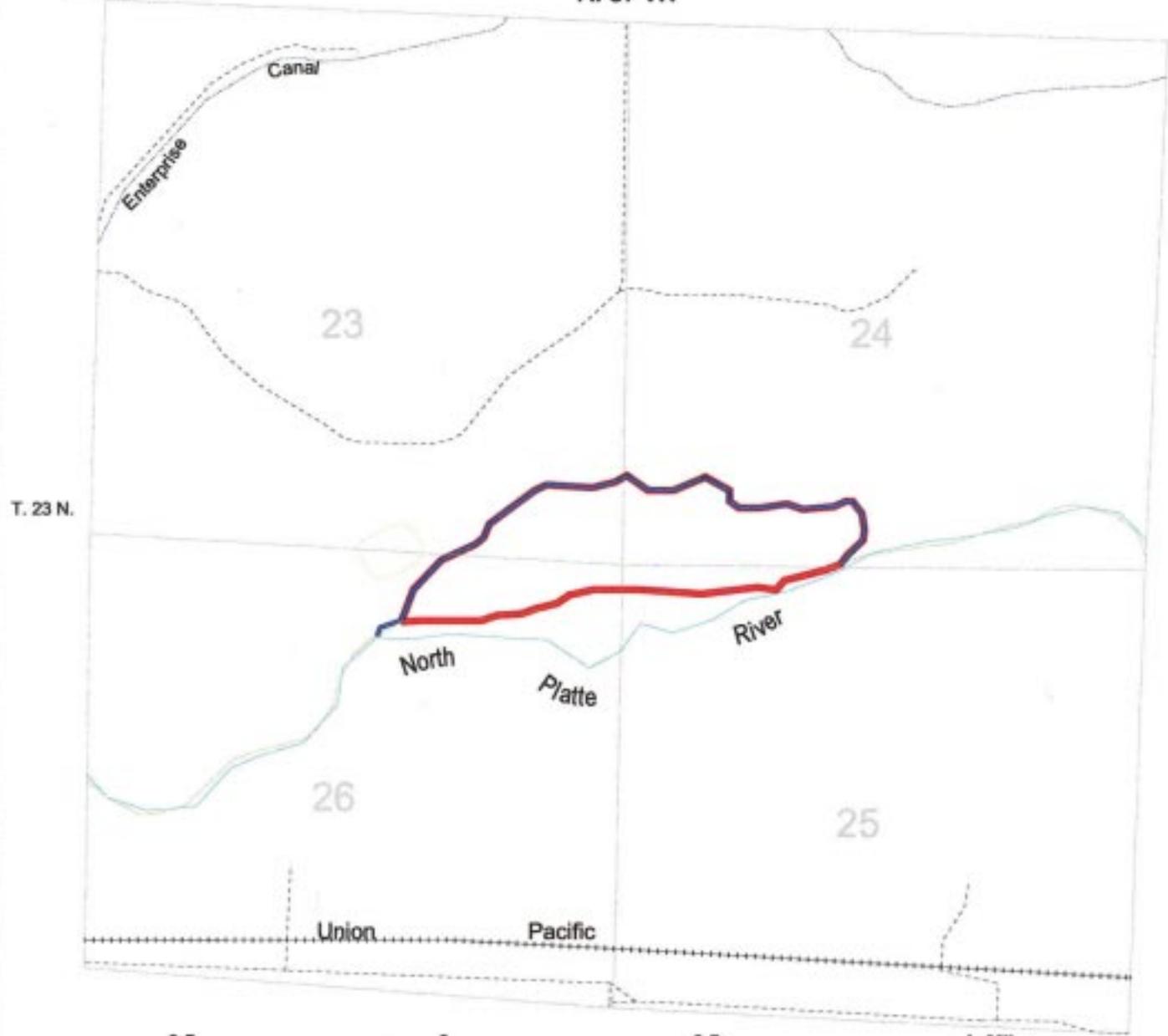
Map # 7 Refuge Unit Map

Morrill Island Scotts Bluff County, Nebraska

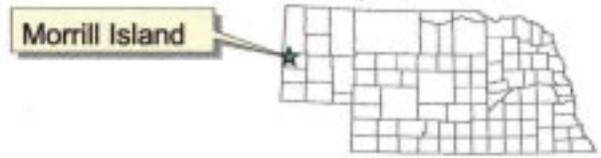


Morrill
2 miles

R. 57 W.



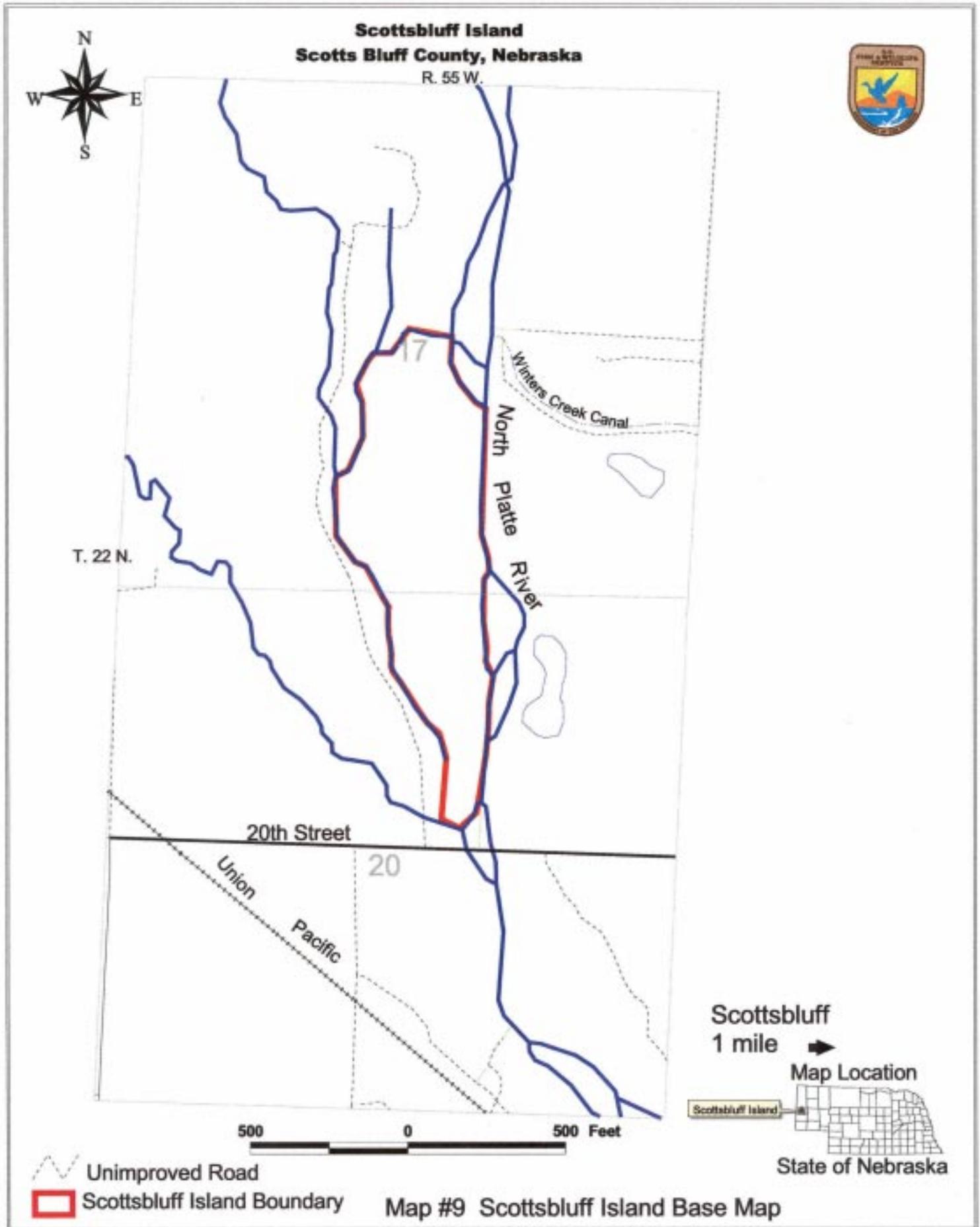
Map Location



State of Nebraska

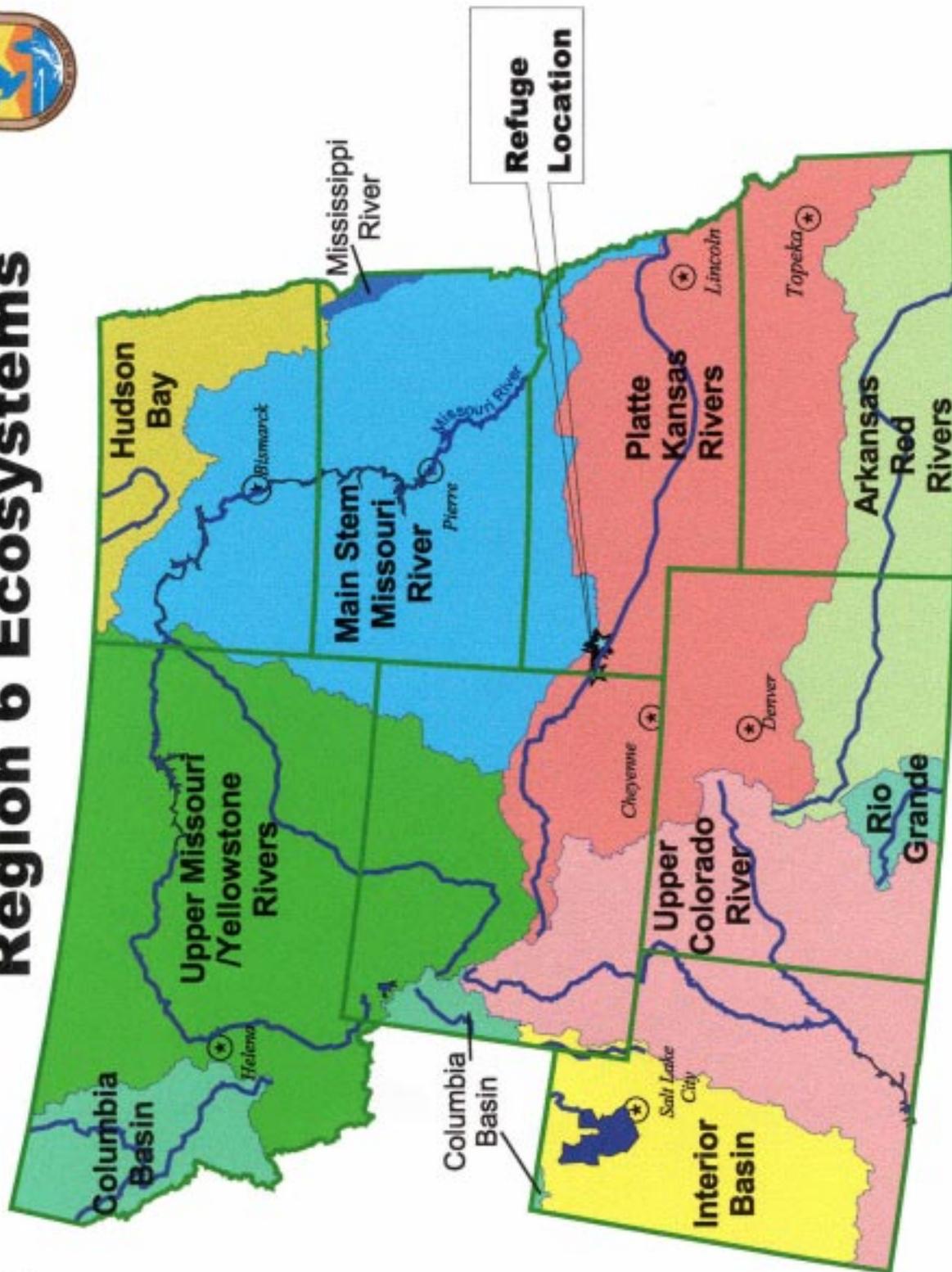
-  Unimproved Road
-  Morrill Island Boundary

Map #8 Morrill Island Base Map





Region 6 Ecosystems



Refuge Resources

Soils

Refuge soils are mapped and described in detail in the 1968 (Yost, et.al.) Soil Survey of Scotts Bluff County. Soils on the reservoir units are mostly deep sandy and loamy soils on foot slopes and deep sandy soils on uplands. Mixed alluvial soils are characteristic of Stateline Island.

Water

The North Platte River is the principal drainage and water source for the North Platte Valley. The Bureau of Reclamation holds a Wyoming water right, with a priority date of December 6, 1904, for storage in the Inland Lakes, three of which are within or adjacent to the Refuge. Under this right, Reclamation may: (1) Accrue 46,000 acre-feet (up to 910 cfs) from the North Platte River during the months of October, November, and April which may be stored in Glendo and Guernsey Reservoirs before release into the Interstate Canal for storage in the Inland Lakes; and (2) divert from Whalen Diversion at a rate up to the canal capacity during the irrigation season as part of Nebraska's share of flows below the Whalen Diversion. This right was confirmed by the Supreme Court in *Nebraska v. Wyoming* (1945), and reconfirmed by the Special Master's Ruling of April 9, 1992, (in litigation resulting from Nebraska's complaint of violations by Wyoming), and reconfirmed by a Supreme Court Decision of April 20, 1993.

During the 1990s litigation, the United States asserted a Federal reserved water right for the Refuge, subject to Bureau of Reclamation uses, for sufficient water to provide a preserve and breeding ground for native birds. The right carries a priority date of August 21, 1916, the date the Refuge was established. The reserved right was not quantified and the claim was not pursued in subsequent settlement discussions.

Lake Alice and Lake Minatare were formed by damming basin-like valleys. Winters Creek Lake is a natural wetland which was altered to operate as a reservoir. The amount of water which enters the reservoirs depends on spring runoff and water right allocations. During the summer, water is released for irrigation. By September, water levels are at their lowest points and the reservoirs usually will not receive more water until the following spring.

Since 1991, Pathfinder Irrigation District has been able to leave about 1,000 acre-feet of water in storage at Lake Alice in the early fall. This relatively small amount benefits migrating birds and reduces the intensity of local sandstorms. Unfortunately, these benefits are short-lived due to seepage and evaporation.

Vegetation

Grasslands

The Refuge has approximately 1,625 acres of grassland, mostly native prairie. The primary native grasses are blue grama, needle-and-thread, western wheatgrass, and prairie sandreed. Little bluestem, sand bluestem, lovegrass, and switchgrass are native grasses that were reseeded on about 16 acres in 1998 and 1999. Appendix F contains a list of 179 plant species collected from the Refuge.

Nonnative species, or species not typically found in mixed-grass prairie, are interspersed throughout all Refuge units. The most widespread are smooth brome and Kentucky bluegrass.

Woodlands/Shrub

Refuge reservoirs are surrounded with bands of large, naturally established cottonwoods. The bands range in thickness from one or two trees to 100 yards or more. The cottonwoods are very even-aged, in the range of 70 to 80 years old. At Lake Minatare, peach-leaf willow grows in relatively undisturbed areas at the high water mark. In the 1930s, the Veterans Civil Conservation Corps (VCCC) planted American elm, green ash, and fruit-bearing shrubs such as chokecherry, among the cottonwoods. At Lakes Alice and Minatare, green ash are established in the understory.

Stateline Island is heavily forested with cottonwood, ash, willow, and honey locust. Besides native grasses, the understory include native grasses, shrubs (peach-leaf willow and serviceberry), and forbs such as wild licorice, ground plum, and prickly pear cactus.

Plant Species of Management Concern

Three plants officially listed as Species of Management Concern by NGPC occur on the Refuge: wild onion, perennial bursage, and strict sage (Appendix H). The amounts and distribution of these plants is largely unknown.

Exotic and Invading Vegetation

Several species on the Nebraska noxious plant list are found on the Refuge. The most widespread is Canada thistle which is common on the many disturbed sites within and adjacent to the Refuge. Other invasive, nonnative plants include musk thistle, Kentucky bluegrass, smooth brome, downy brome, and Russian olive. The latter is very aggressive and is invading the cottonwood understory at Winters Creek, Lake Alice, and Stateline Island.

Summary of Basic Habitat Types on Each Refuge Unit

Summary of Basic Habitat Types on each Refuge Unit					
	Minatare	Winters Creek	Lake Alice	Stateline Island	Total
Open Water (lakes)		237	627		864
Small Wetlands (w/emergent veg.)		6			6
Grassland	560	240	760	65	1,625
Trees/scrub shrub	177	38	100	65	380
Administrative (roads,dams,canals)		15	13	6	34
					2,909

Wildlife

Endangered and Threatened Species

The bald eagle is a federally listed threatened species which, at this writing, has been nominated for delisting. If that occurs it would most likely fall into the category of a Species of Management Concern. The Refuge was established, in part, because of the presence of wintering eagles. Numbers were never large (up to 24); however, the Refuge remains a consistent and important wintering area because of the large numbers of migrating and wintering mallards. One pair of bald eagles has nested on the Refuge since 1993; 18 young were produced to flight stage through 2000.

Whooping cranes, a federally listed endangered species, have not been seen on the Refuge but are occasionally sighted nearby. In 1987, a lone bird was observed east of Scottsbluff and 12 miles north of Lake Minatare. One bird was seen among a flock of sandhill cranes just west of Scottsbluff in 1999. The exposed and shallow water beaches of Lake Minatare and Lake Alice are considered potential fall roosting sites.

Species of Management Concern

For the purposes of this Plan, Species of Management Concern are those listed by the Fish and Wildlife Service or the State as declining and in need of special attention. Comparing these lists with the Refuge bird list indicates 40 such species occur on the Refuge sometime during the year (see Appendix H).

Birds

Nebraska includes 413 bird species on its official list, 228 of which occur on the North Platte Refuge (Appendices F, G and H).

Beside the bald eagle, other raptors common to the Refuge include great-horned owl, American kestrel, rough-legged hawk, golden eagle, red-tailed hawk, northern harrier, and osprey. Use by all raptors averages about 1,500 to 2,000 use-days per year. The peregrine falcon, a recovered endangered species, is an occasional visitor during migrations.

The American Bird Conservancy (1998) has designated Lake Minatare “globally significant” as a wintering area for waterfowl. Although no longer part of the Refuge, Lake Minatare is closed as a fall and winter sanctuary under agreement with the Bureau of Reclamation and the NGPC. Table 1 indicates average annual waterfowl use on the Refuge, about 95 percent of which occurs from mid-October through December.

Table 1. Average Annual Waterfowl Use Days for the North Platte NWR (Includes Lake Minatare proper which is no longer part of the Refuge but adjoins the Lake Minatare Unit and is closed as a fall and winter sanctuary under agreement with Reclamation and NGPC.)		
Species	Average Annual Use Days	TOTAL USE DAYS
Trumpeter Swan	24	
Total Swan Use Days		24
White-fronted Goose	37	
Snow Goose	373	
Canada Goose	80,837	
Total Goose Use Days		81,247
Common Merganser	158,340	
Red-breasted Merganser	489	
Hooded Merganser	480	
Mallard	4,721,953	
Gadwall	10,341	
American Wigeon	16,843	
Green-winged Teal	7,693	
Blue-winged Teal	2,910	
Shoveler	9,167	
Pintail	13,359	
Wood Duck	943	
Redhead	8,293	
Canvasback	2,143	
Lesser Scaup	11,644	
Ring-necked Duck	1,701	
Common Goldeneye	174,780	
Bufflehead	2,619	
Ruddy	3,394	
Total Duck Use Days		5,147,092
TOTAL WATERFOWL USE DAYS		5,228,363

North Platte Refuge is not a waterfowl production area. Only four species nest on the Refuge (Canada goose, wood duck, mallard, and blue-winged teal). About 100 geese and 200 ducks, 95 percent of which are wood ducks, are raised to flight stage annually.

Table 2 indicates average annual marsh and water bird use for the Refuge. Herons and cormorants use the area primarily from March into November. A rookery on the Lake Alice Unit, idle since 1991, was occupied by about 50 herons and 30 cormorants. It is not known why the rookery was abandoned.

Table 2. Average Annual Marsh and Water Bird Use Days for the North Platte NWR (includes Lake Minatare proper which is no longer part of the Refuge but adjoins the Lake Minatare Unit and is closed as a fall and winter sanctuary under agreement with Reclamation and the NGPC).		
Species	Average Annual Use Days	TOTAL USE DAYS
Double-crested Cormorant	12,906	
White Pelican	4,219	
Great Blue Heron	10,732	
Black-crowned Night-Heron	2,706	
TOTAL USE DAYS		30,563

The heaviest use by shorebirds, gulls, and terns occurs from March through November. Table 3 indicates average annual use by shorebirds and allied species.

Table 3. Average Annual Shorebird/Allied Species Use Days for the North Platte NWR (includes Lake Minatare proper which is no longer part of the Refuge but adjoins the Lake Minatare Unit and is closed as a fall and winter sanctuary under agreement with Reclamation and NGPC).		
Species	Average Annual Use Days	TOTAL USE DAYS
Herring Gull	3,084	
Ring-billed Gull	220,324	
Franklin's Gull	28,459	
Bonaparte's Gull	615	
Long-billed Dowitcher	455	
Stilt Sandpiper	48	
Baird's Sandpiper	4,246	
Least Sandpiper	1,860	
Marbled Godwit	168	
Lesser Yellowlegs	401	
Willet	84	
Killdeer	10,032	
TOTAL USE DAYS		269,776

Ring-necked pheasants and sharp-tailed grouse occur in small numbers, primarily on the Lake Alice and Winters Creek units. Bobwhite quail and wild turkey inhabit Stateline Island; the turkey population is estimated at 50.

Mammals

Larger mammals include raccoon, striped skunk, coyote, red fox, black-tailed prairie dog, badger, eastern fox squirrel, eastern cottontail, white-tailed deer, and mule deer (Appendix F). The Refuge Units are small and deer move on and off the Refuge throughout the year; peak numbers occur during winter and average about 50 to 60 mule deer and 10 white-tailed deer. Two black-tailed prairie dog towns on the Lake Minatare Unit were struck by plague in 1996 and have not been occupied since. The black-tailed prairie dog is a candidate for listing as a threatened or endangered species.

The Refuge mammal list is not complete and little is known about small rodents and other species.

Amphibians and Reptiles

The northern leopard frog is the most common amphibian. The bullsnake, western plains garter snake, and eastern yellow bellied racer are the most common reptiles. The Refuge does not have a complete list of amphibians and reptiles, and little is known about these species (Appendix F).

Fish

Refuge reservoirs are man-made and all fish have been introduced through stocking or have entered the lakes through the irrigation canals. Walleye, yellow perch, bluegill, white bass, northern pike, and channel catfish are stocked for recreational purposes at Winters Creek by the NGPC. Little is known about nongame fishes.

Invertebrates

Refuge habitats produce large numbers of invertebrates which form an important food base for migrating and nesting birds. The Refuge does not have an insect list and little is known about relative numbers or distribution. Two native mussels are known to occur in Lake Minatare, the paper floater and the giant floater (see Appendix F). A third species, the cylindrical papershell, could be expected to occur but has not been documented.

Cultural Resources

No significant historic, prehistoric or paleontological resources have been identified within the Refuge. The lake units lie north of the Oregon Trail and 10 miles northeast of the Scotts Bluff National Monument. Construction of the lakes took place in the early 1900s.

The Veterans Civilian Conservation Corps developed some recreational facilities on and around the Refuge in the 1930s. The dilapidated remains of a stone latrine are located at the North Cove area in the Lake Minatare Unit.

Stateline Island adjoins the North Platte River and lies within two miles of the confluence of the North Platte River and Horse Creek where more than 10,000 Plains Indians gathered in council with the U.S. Government to sign the Fort Laramie Treaty of 1851.

The Bureau of Reclamation is responsible for general cultural resource surveys. The Service is responsible for surveys and mitigation on sites disturbed by Refuge management activities.

Public Use and Environmental Education

All four Refuge units are open during daylight hours for wildlife observation and photography, interpretation and environmental education, fishing, hiking, canoeing, boating (no internal combustion motors), and mushroom and berry picking. The Lake Minatare, Winters Creek, and Lake Alice Units are closed during portions of the fall and winter to provide sanctuary for migrating birds. Stateline Island is open year-round.

About 4,500 people visited in 1999, an increase of 20 percent since 1987; about 90 percent are from local communities. Visitors often engage in more than one activity and an approximate breakdown by activity is: wildlife observation/interpretation (2,100); environmental education (1,400); and fishing (1,900). In addition, Refuge staff presented off-site education programs to about 1,100 people, mostly students, in 1999.

Visitor facilities are limited. Interior Refuge roads are two-track trails which are difficult to travel when wet. Mowed parking areas are located near fishing access points, including a primitive boat launch at Winters Creek. Five information kiosks with leaflet dispensers are located at Refuge entrances. No rest room facilities are provided. Refuge entrances and boundaries are signed.

The adjoining Lake Minatare State Recreation Area (SRA) is managed by the Nebraska Game and Parks Commission through a lease with the Bureau of Reclamation. It is open for public use from January 15 to September 30 and closed the rest of the year, under agreement with the Service, as a sanctuary for migrating and wintering birds. NGPC estimates that the area receives 250,000 to 325,000 visits annually (McCoy, personal communication). These visits are primarily for power boating and fishing, camping (including ORVs), and swimming.

IV. Refuge Goals, Objectives, and Strategies

Background

The mission of the National Wildlife Refuge System and legal purpose of the North Platte Refuge are the primary references for setting Refuge goals and objectives. Service ecosystem priorities are also considered.

The following goals and objectives were first established in the early stages of the planning process and then refined and updated based on comments from stakeholders and the review team. They provided the base for development of the alternatives discussed in the Environmental Assessment (Appendix J).

It is important to understand that individual objectives cannot be taken out of context. Refuge objectives are interrelated and, together, will produce the desired results. Generally speaking, habitat is managed to produce and/or support a definable variety and amount of wildlife. However, because it is the habitat over which refuge managers have most control, a clear understanding must also exist of the kinds and amounts of habitat needed to support that wildlife. Thus, objectives occur for both wildlife species or groups of species and for habitat - but they must be viewed collectively. Public use and environmental education are also important functions and managers must know what kinds and how much public use can be allowed and remain compatible with the wildlife purposes and objectives.

The Refuge consists of four small, geographically separated units and cannot be all things to all forms of wildlife. Therefore, in order to decide how to manage a specific habitat, it is necessary to define in general terms which animals, or group of animals, will receive priority and where. This is not always a popular idea and perhaps a couple of examples will help. For instance, if a conflict exists between providing for a species of management concern and providing for migrating mallard ducks, the species of management concern would generally be given priority. Similarly, in the event of a management conflict, species that are abundant on private lands surrounding the Refuge (i.e., horned lark) would have lower priority than species which are more dependent on native prairie (i.e., long-billed curlew).

The general wildlife priorities for North Platte Refuge are: (1) endangered or threatened species; (2) species considered candidates for listing as threatened or endangered, and Species of Management Concern (species which are or are becoming rare or are declining in numbers, are listed as such on either Federal or State lists, and for which the proper habitat occurs on the Refuge); (3) native birds (resident and migratory); (4) other native wildlife; and (5) nonnative species that people use consumptively (i.e., ring-necked pheasant and sport fish).

Endangered and Threatened Species

Plants and animals listed as endangered or threatened by either the Federal government or the State of Nebraska will receive priority consideration in all refuge management decisions. The bald eagle is listed as threatened, however, at this writing, has been recommended for delisting. An average of 10 eagles have wintered on the Refuge over the last 10 years, and one pair has successfully nested on the Refuges since 1993. No known endangered plants occur on the Refuge. Scoping and public involvement did not reveal a need for more use by these species or to change present management.

Goal 1: Contribute to the preservation and restoration of endangered or threatened species that are or were endemic to the North Platte Refuge area.

1.1 Objective: Maintain habitat and food sources for at least 24 wintering and migrating bald eagles, and one pair of nesting bald eagles.

Strategies:

- Continue to close the Lake Alice, Winters Creek, and Lake Minatare units to public use from mid-October to mid-January.
- Maintain a protective zone around the existing nesting site.
- Continuously monitor for new nesting activity; immediately establish new protective zones at the first signs of nesting.

Fish and Wildlife

Wildlife objectives, particularly those for migratory species, must be considered in light of: the purpose and role of North Platte Refuge; continental and statewide populations and trends; the potential of the Refuge to make a measurable contribution at reasonable cost; and the effects of applied management on other species. For instance, if a migratory species is declining because of problems on wintering grounds to the south, it does not automatically follow that this refuge should make significant adjustments in management to produce or sustain more - but that possibility should be considered. Or, for example, if increases are indicated, care should be taken that refuge management is resulting in a net increase, not just redistributing animals from surrounding areas.

Goal 2: Preserve, restore, and enhance the ecological diversity and abundance of migratory birds and other indigenous fish and wildlife.

2.1 Objective: Maintain present migrating and breeding populations of Species of Management Concern (see Appendix H) and species which are candidates for listing as threatened or endangered.

The black-tailed prairie dog is a candidate for Federal listing as a threatened or endangered species. The Refuge population was decimated by plague in 1996, and the two colonies have not been reinhabited. Because of the small size of the Refuge and the inability to prevent prairie dogs from migrating onto private lands, the reintroduction of prairie dogs is not feasible at this time. Should the population return to it's own, however, they will be fully protected.

Scoping and public involvement did not reveal a specific need for more use on the Refuge by other species. Therefore, changes in management for the specific purpose of increasing any of these species is not necessary at this time. More information is needed to determine how present habitat management helps or hinders each species and if the Refuge has significant potential to increase populations.

Strategies:

- Maintain habitat capable of supporting present populations of Species of Management Concern and species which are candidates for listing as threatened or endangered (see Habitat Objectives).
- Emphasize habitat uncommon or not found on surrounding private lands (see Habitat Objectives).
- Acquire management control over government owned Morrill and Scottsbluff Islands.
- Devise and implement surveys and monitoring to determine status and trends of, and effects of management on, Species of Management Concern; identify "indicator species" that will help define with greater detail management strategies for this group as a whole.
- Participate in ecosystem management and area-wide strategies to enhance these species.

2.2 Objective: Maintain present migrating and breeding populations and production of waterfowl (See Table 1).

Scoping and public involvement did not reveal a need to increase present populations or production of waterfowl on the Refuge.

Strategies:

- Maintain habitat capable of supporting present breeding and migrating populations (see Habitat Objectives).

2.3 Objective: Maintain present numbers and distribution of other migratory and nonmigratory birds.

Scoping and public involvement did not reveal a need to increase the breeding or migrating populations of other migratory or nonmigratory birds on the Refuge.

Strategies:

- Maintain habitat capable of supporting present numbers of other migratory and nonmigratory birds (see Habitat Objectives).
- Monitor population trends and assess the effects of habitat management on these species.

2.4 Objective: Maintain the present diversity and abundance of mammals, reptiles, amphibians, and invertebrates.

Scoping and public involvement did not indicate a need to increase or decrease use on the Refuge of any other animal species. However, little is known about the presence, abundance, and specific needs of many of these species; problems and needs may simply be unknown. Scientifically based, defensible surveys and research is time consuming and often expensive; past and present funding and staffing has limited such activity.

Strategies:

- Devise and implement surveys, and monitor to detect the status and trends of, and effects of management on, mammals, reptiles, amphibians, and invertebrates.
- Seek alternative ways to obtain missing information (i.e., university studies, volunteer assistance).

2.5 Objective: Maintain harvestable populations of sport fish in Winters Creek and Lake Alice reservoirs; maintain an overall fishery as a food source for birds dependent of an aquatic diet.

The NGPC manages sport fisheries on the Refuge, an arrangement that has been valuable to both agencies. At present, only Winters Creek has sustainable populations. Drawdowns for irrigation and seepage prevent a sustainable fishery at Lake Alice. A fish screen at the inlet of Winters Creek was damaged by a wildfire in 1996 and is no longer functional; unknown amounts of carp have entered the lake for the past several years.

Strategies:

- Maintain cooperative agreement with NGPC for fishery management.
- In cooperation with the NGPC:
 - Evaluate the feasibility of, need for, and costs and benefits of establishing a new sport fishery at Lake Alice.
 - Devise and implement surveys to determine the presence, status, and importance (both positive and negative) of fish other than sport fish.
 - Assess the effects of carp on the Winters Creek fishery; implement control when indicated, including repair of the fish screen.

Goal 3: Maintain ecological diversity and abundance of migratory birds and other wildlife on Stateline Island.

3.1 Objective: On Stateline Island maintain present migrating and breeding populations of Species of Management Concern (see Appendix H) and species which are candidates for listing as threatened or endangered.

Strategies:

- Maintain habitat capable of supporting present populations of Species of Management Concern and species which are candidates for listing as threatened or endangered (see Habitat Objectives).
- Devise and implement surveys and monitoring to determine status and trends of, and effects of management on, Species of Management Concern; identify “indicator species” that will help define with greater detail management strategies for this group as a whole.

Upland Habitat

Goal 4: Preserve, restore, and enhance on North Platte Refuge the natural diversity of indigenous flora; maintain the amounts and distribution of basic upland habitat types as are now present.

An Upland Habitat Management Plan was written for North Platte Refuge in 1996. Referred to as a “step-down plan,” it presents habitat descriptions and the management techniques that will be used to create and/or maintain the habitat necessary to reach and sustain the fish and wildlife objectives. The step-down plan is available at the Refuge Headquarters if more information is needed. The following habitat objectives are based on that document.

4.1 Objective: Maintain and sustain existing native prairie areas in excellent condition; increase the warm season grass component of native prairie and other grassland areas by 10 percent.

The theme of prairie/grassland management on North Platte Refuge is to create a general landscape that mimics “native” prairie, with emphasis on warm season grasses such as switchgrass and Indian grass. This is desirable because surrounding privately owned lands are managed for different purposes and have little residual cover available in the early spring for ground nesting birds. Cool season and exotic grasses (such as Kentucky bluegrass and downy brome) begin growing in early spring and cure out in midsummer. By the next spring, they are mostly lying flat and of little use to nesting birds. Native warm season grasses do not begin to grow until early or midsummer. They are generally bigger, more robust, and remain standing throughout winter and spring. While most bird species are adaptable and can survive in less than optimum habitat, their numbers are generally fewer; some are becoming rare because of changes in grassland resulting from commercial uses on private lands.

Today, “native” prairie is not common on private lands surrounding the Refuge. These private lands do, however, provide shorter grasses for wildlife which need that habitat type for all or part of their life cycle. By emphasizing taller, warm season grasses and native forms on the Refuge, a mixture of habitats can be provided over a larger area. The Refuge can and should provide habitat not common in surrounding private lands.

Among the species that will benefit from taller vegetation are the grasshopper sparrow, bobolink, clay-colored sparrow, mallard, and sharp-tailed grouse. Birds which may benefit from shorter grass surrounding the Refuge include killdeer, willet, horned lark, and lark bunting (Kantrud and Kologiski 1982; Kirsch 1978; Ryder 1980).

Duebbert (1974) stated that residual nesting cover carried over from year-to-year is an important component of nesting cover. However, if undisturbed for too many years, the vigor of the vegetation declines. He suggested a system of management that includes several years of non-use interrupted by nearly complete cover removal during one year.

The desired mixture of grasses and forbs is encouraged by a combination of rest, fire, and grazing (Duebbert 1974). Refuge management will strive for a balance between providing undisturbed wildlife cover and maintaining vegetative composition and vigor.

Strategies:

- Leave no less than 75 percent of upland cover in an undisturbed state every year. (Note: Treating up to 25 percent annually is the approximate maintenance level; up to 50 percent may be treated in some years until the desired condition and composition is reached.)
- Prescribe burn 10 to 25 percent of native prairie or other grassland areas annually until habitat objectives are met; then burn about 5 to 10 percent annually.
- Graze up to 50 percent of native prairie or other grassland areas annually until habitat objectives are met; then graze about 5 to 10 percent annually.
- Plant native grasses in disturbed areas (i.e., Russian olive control sites) and areas infested with brome grasses.
- Work with utility companies to remove or bury overhead power lines.
- Through acquisition, conservation easements, or other instruments, protect selected adjoining lands as upland habitat and to improve general administration of the Refuge.
- Evaluate the results of applied management annually; adjust step-down plan as needed.
- Refine the Upland Habitat Management Plan to more specifically describe mixed grass prairie and desired species composition, including indicator species to help measure change and progress.

4.2 Objective: Eradicate or reduce to the lowest practical level all noxious plants.

The four refuge units are small and surrounded by private lands subjected to a wide variety of uses. Noxious plant control has been and no doubt will continue to be an ongoing battle.

Strategies:

- Manage Canada thistle using integrated pest management techniques. Eradication is not feasible but the plant should not be allowed to spread or become the dominant species on any given area.
- Eliminate Russian olive trees through a combination of mechanical removal, burning, and chemical treatment of stumps.
- Manage other noxious plants with a combination of mechanical removal, biological (insect) control, spot application of herbicides, overseeding, and proper management/restoration of native plants.
- Include information about control of exotic/invasive species in information leaflets, kiosks, and other environmental education efforts.

Goal 5: Preserve, restore, and enhance on Stateline Island the natural diversity of indigenous flora; maintain the amounts and distribution of basic upland habitat types as are now present.**5.1 Objective:** Maintain and sustain existing native grassland and cottonwood stands in good to excellent condition.**Strategies:**

- Continue to prescribe burn Stateline Island Unit annually approximately once every four years.
- Continue to monitor vegetation health and production by using photo-point measuring techniques.

5.2 Objective: Eradicate or reduce, to the lowest level practical, all State and federally listed noxious weeds.**Strategies:**

- Manage Canada thistle using integrated pest management techniques. Eradication is not feasible but the plant should not be allowed to spread or become the dominant species on any given area.
- Manage other noxious plants with a combination of mechanical removal, biological (insect) control, spot application of herbicides, overseeding, and proper management/restoration of native plants.

Wetlands

Goal 6: Enhance and maintain diverse and reliable wetlands for fish and wildlife on North Platte Refuge.

Refuge and nearby impoundments are irrigation reservoirs and the Refuge has no control over the amounts and timing of water delivered through the irrigation canals. Water levels fluctuate widely, resulting in unreliable shallow and deep-water habitat.

6.1 Objective: Establish a reliable water source for management of water levels for wildlife at Lake Alice.

Strategies:

- Obtain water rights through fair market purchase and agreement with the Bureau of Reclamation and the Pathfinder Irrigation District.
- Increase the inactive (fall-winter) pool elevation at Lake Alice through agreement with Reclamation and the Pathfinder Irrigation District.

Public Use and Environmental Education

Goal 7: Provide opportunities to learn about and enjoy the outdoor environment, fish, wildlife, and the history of the Refuge in a manner compatible with the purposes for which the Refuge was established.

The scoping sessions did not reveal a need to increase any specific type of on-site public use. About 90 percent of current use is from local communities, and tourism is not expected to increase significantly. Therefore, for planning purposes, it is assumed that public use will increase at about the same rate as the local population or about 13 to 14 percent by 2010 (Panhandle Area Development District). If this growth rate remains steady through the life of this Plan, public use (other than fishing) would increase by about 20 percent by 2015.

Local schools have expressed a desire for more on-site and off-site environmental education programs and facilities; based on discussions with teachers, the present demand is about twice the current output.

Fishing, especially winter fishing, has been increasing about 10 percent a year for the last 3 to 4 years, primarily because people have discovered that fishing on Winters Creek Lake is often better than on other nearby areas such as the Lake Minatare State Recreation Area. Thus, while the total number of anglers in the general area is not increasing faster than the local population, the distribution is changing. This trend will not continue indefinitely, but a 50 percent increase in fishing on the Refuge over the life of this Plan (15 years) would not be surprising.

7.1 Objective: Provide up to 5,000 visitors with quality interpretation, wildlife observation, and photography opportunities.

7.2 Objective: Provide on-site environmental education and interpretation opportunities for up to 2,000 local K-college students.

7.3 Objective: Increase off-site environmental education by Refuge staff from 1,100 to 1,700 local students.

7.4 Objective: Provide people of all ages and people with disabilities access to some portion of all allowed public uses.

Strategies:

- Shorten the closure on Lake Minatare and Winters Creek from October 1 through January 14 to October 15 through January 14.
- Acquire lands within the Winters Creek Expansion boundary, from willing sellers, and management control over Scottsbluff Island for the expansion of on-site environmental education and interpretation opportunities.
- Develop an accessible visitor contact station, staffed on a part-time basis, at Winters Creek for formal and informal on-site interpretation and education.
- Seek partnerships for development of formal on-site education facilities.
- Revise the public use step-down plan; include site and facility plans for a visitor contact station at Winters Creek.

7.5 Objective: Provide sport fishing opportunities for up to 3,500 people per year.

Strategies:

- Maintain agreement with NGPC for fishery management.
- In cooperation with NGPC:
 - determine the sport fishing capacity for Refuge lakes and be prepared to limit use if necessary.
 - conduct a feasibility study/cost benefit analysis for a sustainable sport fishery at Lake Alice.

7.6 Objective: Provide opportunity for hunting (except migratory birds) at Lake Alice from January 15 through October 14 in accordance with State laws.

The Refuge has never been open to hunting. Until 1990, the Refuge was unstaffed and the Crescent Lake National Wildlife Refuge, 100 miles distant, served as “caretaker” of the limited Service interests. The Refuge is now staffed, and it is believed that limited hunting on the 1,500-acre Lake Alice unit would be compatible with Refuge purposes, if the fall/winter closure is retained.

Strategies:

- In partnership with the NGPC, prepare a hunting plan complete with public involvement.

Goal 8: Provide outdoor opportunities on Stateline Island for visitors to enjoy environmental aspects of open space and protected wildlife.

8.1 Objective: Provide the public of all capabilities with quality interpretation, wildlife observation, and photography opportunities,

Strategies:

- Maintain existing trail system and develop an accessible interpretive river-walk trail on Stateline Island.

Cultural Resources

Broad-based cultural resource surveys (history, archaeology, paleontology) have not been conducted on the Refuge. General surveys are the responsibility of the Bureau of Reclamation, the agency with primary jurisdiction. The Service is responsible for surveys on sites that will be disturbed by refuge management activities and for subsequent protection or mitigation of any resources discovered during those surveys.

Goal 9: Preserve the cultural resources of the North Platte Refuge.

9.1 Objective: Identify and protect cultural resources for scientific, educational, and interpretive purposes.

Strategies:

- In partnership with the Bureau of Reclamation, conduct a general survey of cultural resources on the Refuge by December 31, 2002.
- Continue to conduct site-specific surveys on areas that will be disturbed by refuge management activities; take advantage of prescribed burns to detect presence of cultural resources.

Community Involvement / Support Systems

Goal 10: Promote partnerships to preserve, restore, and enhance the natural environment and socio-economic community of which North Platte Refuge is a part.

10.1 Objective: North Platte Refuge is part of larger socio-economic and biological communities. It influences and is influenced by what goes on around it - agriculture, recreation, community growth and development, natural resource preservation. It does not stand alone and must be involved in maintaining a healthy social, economic, and natural environment for people and wildlife.

Strategies:

- Continue participation in the Fish and Wildlife Service Partners for Fish and Wildlife Program to enhance wildlife habitat on private lands.
- Encourage and support scientific research on the Refuge, with emphasis on information needs of the Refuge.
- Participate with other Service divisions and the NGPC in the "ecosystem approach to resource management" and define the Refuge role in that effort.
- Participate in local and State planning efforts.
- Continue to provide areas on the Refuge for use by teachers and students for environmental/biological education.
- Continue interagency cooperation in such activities as wildfire and noxious weed control.
- Develop a Friends Group for North Platte Refuge.

V. Implementation and Monitoring

Funding and Personnel

Staffing Needed for Implementation

The following Staffing Chart shows current staff and additional staff needed to implement this Plan. All personnel would be part of the Crescent Lake NWR Complex and some positions would be shared with the Crescent Lake NWR. If positions are not filled, some aspects of this Plan would not be completed or may take longer to complete.

Staffing Chart - Current and Proposed		
Position	Current	Proposed
Project Leader, GS-13 (Complex)	X	X
Refuge Manager	X	X
Biological Aid, GS-3		X
Clerk, GS-4 (Complex)		X
Refuge Manager, GS-5/7/9		X
Biological Technician, GS-5	X (1/2 time)	X (full-time)
Biological Technician, GS-7		X
YCC Crew Leader, Part-time, GS-5	X	X
Maintenance Worker, WG-5		X
Wildlife Biologist, GS-11 (Complex)		X
Administrative Support Assistant, GS-8 (Complex)	X	X
Outdoor Recreation Planner, GS-11 (Complex)		X

Funding Needed for Implementation

The Service maintains two national databases for tracking funding needs: (1) The Maintenance Management System (MMS) which records needs for maintaining or replacing existing facilities and equipment; and (2) the Refuge Operating Needs System (RONS) which documents new or additional projects, facilities, equipment and personnel needed to implement CCP.

The North Platte Refuge maintenance backlog was \$324,000 in 1999 (see Appendix D for project summary). New projects, or additions to existing projects, needed to fully implement this Plan total \$2.4 million. Projects on both lists are in order of priority as viewed by the Project Leader. Those priorities are sometimes changed as funding requests move up through the Service to the Department of the Interior and Congress. More specific information about each project can be found in the database on file at the Refuge headquarters.

Implementation of this Plan would require projects not yet included in MMS or RONS. The total cost for these additional projects is about \$400,000. A summary of these costs follows:

Additional MMS and RONS Projects	
Bury or reroute overhead utility lines (6 miles @ \$10.00/foot)	\$320,000
Gain management control over Morrill Island	\$20,000
Acquire public domain land, Scotts Bluff Island	\$20,000
Develop and construct, through a partnership with the Bureau and Pathfinder Irrigation District, an interpretive overlook on or near the dam at Lake Alice	\$40,000

Step-down Management Plans

Step-down management plans describe management strategies, procedures, methods, and tasks for specific resources or functions. Step-down plans for North Platte Refuge are listed below and are on file at the Refuge headquarters and/or Regional Office. All step-down plans are reviewed annually to be sure they are up-to-date; several will require changes to reflect the content of this CCP.

Approved Step-down Plans and Approval Date
<p>Wildlife Management Plan for Stateline Islands - 1991 Per management agreement with Bureau of Reclamation and Farmers Irrigation District, provides management guidance over the 130-acre unit.</p>
<p>North Platte NWR Management Plan - 1992 Provides overall wildlife management guidance over the Minatare, Winters Creek, and Lake Alice Units.</p>
<p>Public Use and Education Program Plan - 1995 Provides overall public use management guidance.</p>
<p>Integrated Pest Management Plan - 1995 Provides overall management guidance of noxious and invasive plant species within the Refuge.</p>
<p>Upland Management Plan - 1996 Provides overall guidance of upland management within the Complex. Guides use of such tools as grazing, haying, fire, and seeding.</p>
<p>Wildlife Management Plan, for Reclamation Lands Adjoining the North Platte NWR - 1997 Per management agreement with Bureau of Reclamation and Pathfinder Irrigation District, provides management guidance over the subject lands adjoining the Inland Lakes Units.</p>
<p>Fire Management Plan - 1998 Provides overall management guidance of wildfire suppression and prescribed burning within the Complex.</p>

Refuge Management Policies and Guidelines

In addition to the laws, policies, and regulations under which all national wildlife refuges operate (Section 1 and Appendix C), North Platte Refuge is guided by a number of agreements with the Bureau of Reclamation, the Nebraska Game and Parks Commission, and local agencies (Appendix C). The public involvement process did not reveal a need to change these agreements.

Partnership Opportunities

The Service will continue to seek opportunities to work with Federal, State, and local agencies, conservation groups, and private corporations and organizations to advance the purpose of North Platte Refuge. Partnerships require time to coordinate, develop, and nurture. This must be accounted for in the development of budgets and annual work plans. Existing and potential partners include:

- **Bureau of Reclamation/Pathfinder Irrigation District**
Both organizations have cooperated with several Refuge initiatives in the past, including ways and means to seal Lake Alice and prevent loss of irrigation waters. Future Refuge facilities could interpret the mission of the Bureau and District as well as that of the Service.
- **Nebraska Game and Parks Commission**
Continue partnership with the Commission to manage Refuge fisheries.
- **University of Nebraska - Panhandle Extension and Research Center**
Continue coordination of integrated pest management with research staff.
- **Educational Service Unit #13, Nebraska Department of Education**
Continue partnership for formal environmental education of area students.
- **Wildcat Audubon Society**
This Chapter has formally “adopted” the Refuge through the “Adopt-a-Refuge” program and will continue to be called upon for environmental education projects and for technical assistance.
- **Scotts Bluff National Monument**
The Refuge will share staff, equipment, and professional expertise with the Monument.
- **Scotts Bluff County Fire Association**
Maintain cooperative agreements for wildfire suppression.
- **West Nebraska Sportsmen’s Association**
The Refuge staff will continue to request the assistance for selected wildlife projects.
- **Scotts Bluff County**
Continue coordination of integrated pest management activities with the County Weed Superintendent.
- **Scottsbluff/Gering United Chamber of Commerce**
Maintain cooperation with the Chamber to dispense and promote Refuge information and activities.

Monitoring and Evaluation

This Plan emphasizes the importance of monitoring and evaluating the effects of applied management and public use on plants and animals. Additional scientific, long-term monitoring is needed in order to measure progress toward stated objectives, detect successes and failures, make adjustments in management techniques, and modify plans, and budget requests. Some monitoring needs and techniques are documented in the step-down plans; others have been identified but not designed.

At this writing, a lot goes undone. The staffing plan will contribute significantly to monitoring and evaluation and to conducting refuge management studies, but the Refuge will also be dependent on university level research and volunteers to get the whole job done right.

Plan Amendment and Revision

This is a dynamic Plan and will be adjusted to include new and better information. It will be monitored continuously, reviewed during inspections and programmatic evaluations, dove-tailed with budget requests and annual work plans, and formally reviewed every five years. Public involvement will be part of any substantive change. The Plan will be formally revised at least every 15 years.

Appendix A. Glossary

AUM or Animal Unit Month: A measure of the quantity of livestock forage. Equivalent to the forage sufficient to sustain a 1,000 pound animal (or 1 cow/calf pair) for 1 month during the normal range season.

Biological Control: Use of organisms/viruses to control weeds or other pests.

Biological Diversity: The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

CCP or Plan: Comprehensive Conservation Plan.

Compatible Use: A wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the Refuge Manager, will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge.

Comprehensive Conservation Plan, Plan, or CCP: A document that describes the desired future conditions of the refuge and provides long-range guidance and management direction for the refuge manager to accomplish the purposes of the refuge, contribute to the mission of the Refuge System, and to meet other relevant mandates.

EA or Environmental Assessment: A concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action, alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare and Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Ecosystem: Dynamic and interrelated complex of plant and animal communities and their associated nonliving environment.

Endangered Species (Federal): A plant or animal species listed under the Endangered Species Act that is in danger or becoming extinct throughout all or a significant portion of its range.

Exotic and Invading Species (Noxious Weeds): Plant species designated by Federal or State law as generally possessing one or more of the following characteristics: aggressive or difficult to manage; parasitic; a carrier or host of serious insects or disease; or nonnative, new, or not common to the United States, according to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or has adverse effects on man or his environment and, therefore, is detrimental to the agriculture and commerce of the United States and to the public health.

Integrated Pest Management: Methods of managing undesirable species, such as weeds, including: education; prevention, physical or mechanical methods of control; biological control; responsible chemical use; and cultural methods.

Migration: The seasonal movement from one area to another and back.

National Wildlife Refuge, Refuge, or NWR: A designated area of land or water or an interest in land or water within the Refuge System, including national wildlife refuges, wildlife ranges, wildlife management areas, waterfowl production areas, and other areas (except coordination areas) under Service jurisdiction for the protection and conservation of fish and wildlife. A complete listing of all units of the Refuge System may be found in the current "Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service."

National Wildlife Refuge System, Refuge System, or System: Various categories of areas that are administered by the Secretary for the conservation of fish and wildlife, including species that are threatened with extinction; all lands, waters, and interests therein administered by the Secretary as wildlife refuges; areas for the protection and conservation of fish and wildlife that are threatened with extinction; wildlife ranges; game ranges; wildlife management or waterfowl production areas.

Neotropical Migratory Bird or Neotropicals: A bird species that breeds north of the U.S. - Mexican border and winters primarily south of this border.

PID: Pathfinder Irrigation District

Public: Individuals, organizations, and groups; officials of Federal, State, and local government agencies; Indian tribes; and foreign nations. It may include anyone outside the core planning team. It includes those who may or may not have indicated an interest in Service issues and those who do or do not realize that Service decisions may affect them.

Public Involvement: The process by which interested and affected individuals, organizations, agencies, and governmental entities are offered an opportunity to become informed about, to express their opinions and participate in the planning and decision making process of Service actions and policies. In this process, these views are studied thoroughly and thoughtful consideration of public views is given in shaping decisions for refuge management.

Purposes of the Refuge: The purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge sub-unit.

Reclamation Uses: Includes all Bureau and irrigation district activities necessary to carry out the primary purpose of construction, maintenance, and operation of irrigation works for the storage, diversion, and delivery of waters for the irrigation of Project lands.

Refuge: short for North Platte National Wildlife Refuge

Refuge Purposes: The purposes specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, a refuge unit, or refuge subunit (Draft Service Manual 602 FW 1.5)

Service or USFWS: Short for U.S. Fish and Wildlife Service

Threatened Species (Federal): Species listed under the Endangered Species Act that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

Trust Resources: A trust is something managed by one entity for another who holds the ownership. The Service holds in trust many natural resources for the people of the United States of America as a result of Federal Acts and treaties. Examples are species listed under the Endangered Species Act, migratory birds protected by the Migratory Bird Treaty Act and other international treaties, and native plant or wildlife species found on the Refuge System.

USFWS or Service: Short for U.S. Fish and Wildlife Service

Wildlife-Dependent Recreation/Wildlife-Dependent Recreational Use: A use of a refuge involving hunting, fishing, wildlife observation and photography, or environmental education and interpretation. The National Wildlife Refuge System Improvement Act of 1997 specifies that these are the six priority general public uses of the Refuge System.

Appendix B.

Literature Cited/References

Literature Cited

- American Bird Conservancy. 1998. Bird Conservation. 16 pp
- Armbruster, M.J. 1990. Characterization of habitat used by whooping cranes during migration. U.S. Fish and Wildlife Service Report 90(4).
- Duebbert, H.F., and H.A. Kantrud. 1974. Upland duck nesting related to land use and predator reduction. *J. Wildl. Manage.* 38(2):257-265.
- Kantrud, Harold A. and Russell L. Kologiski. 1982. Effects of soils and grazing on breeding birds of uncultivated upland grasslands of the northern great plains. U.S. Fish Wildl. Serv. Rep.; 15.ii+ 33pp. WR 186.
- Kirsch, L.M. 1978. Grazing and haying effects on habitats of upland nesting birds. *Trans. Of 43rd No. Am. Wildlife and Natural Resources Conference.* 43:486-497
- McCoy, M. Superintendent. Personal communication. 1994. Nebraska Game and Parks Commission.
- Panhandle Area Development District. Undated (ca. 1998). Economic Development Report. Gering, NE. 10pp.
- Ryder, R.A. 1980. Effects of grazing on bird habitats. U.S. For. Serv. Gen. Tech. Rep: Int-86: 51-66.
- Savory, A. 1986. Aide memoire for range monitoring. Center for Holistic Resource Management. 10pp.
- Schainost, Steve. Research Specialist, Fisheries Division. phone conversation. May 23, 2000 Nebraska Game and Parks Commission.
- Scotts Bluff County. 1999. Draft Vision for the Year 2020. Vision 2020 Steering Committee and Scottsbluff/Gering United Chamber of Commerce, Nebraska. 28pp.
- U.S. Fish and Wildlife Service. March 1994. An Ecosystem Approach to Fish and Wildlife Conservation
- U.S. Fish and Wildlife Service. April 1995. Recreation Management on the Lake Minatare Unit, North Platte NWR, Final Environmental Assessment. 30 pp.
- U.S. Fish and Wildlife Service, North Platte NWR, herbarium, 179 species, 1992-1993
- U.S. Fish and Wildlife Service. September 1995. Migratory Nongame Birds of Management Concern in the United States: The 1995 List.
- U.S. Fish and Wildlife Service. July 1992. Needs Assessment: Monitoring Neotropical Migratory Birds.
- Yost, D.A., D.L. Brown, L.L. Buller, and J.O. Olson. 1968. Soil survey of Scotts Bluff County, Nebraska. U.S. Department of Agriculture, Soil Conservation Service. 119pp.

Additional References

- Bellrose, F.S. 1980. Ducks, Geese, and Swans of North America. Stockpole Books, Harrisburg, PA, 540 pp.
- Farrar, J. 1990. Wildflowers of Nebraska and the Great Plains. NEBRASKALand Magazine, Nebr. G&P Comm. 216 pp.
- Hebert, E., Reese, E., et al. 1995. Avian collision and electrocution: an annotated bibliography. California Energy Commission. Pub. No.:P700-95-001.
- LaGrange, Ted. 1997. Guide to Nebraska's wetlands and their conservation needs: Nebraska Game and Parks Commission, Lincoln, Nebraska. 34pp.
- Smith, L.M., R.L. Pederson, and R.M. Kaminski, et.al. 1989. Habitat management for migrating and wintering waterfowl in North America. Texas Tech University Press. Pp 311-335.
- U.S. Bureau of Census, County and City Data Book: 1994, 12th Edition, Washington, DC

Appendix C. ***Legal and Policy Guidance***

Day-to-day management is guided in part by the following cooperative agreements that are germane to the North Platte NWR:

- **Memorandum of Agreement Between the U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service Concerning the North Platte National Wildlife Refuge, 1995, Agreement No. 97-AG-60-08870:** Defines how respective agencies will manage Federal interests within the subject boundaries.
- **Memorandum of Understanding Between the U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service Regarding Use of Lands at the Inland Lakes for Wildlife Habitat, 1995, Agreement No. 97-AG-60-08860:** Transfers wildlife management of adjoining Reclamation lands (180 acres) to the North Platte NWR.
- **Memorandum of Understanding Between the U.S. Bureau of Reclamation and U.S. Fish and Wildlife Service Regarding Use of Lands at Stateline Island for Wildlife Purposes, 1991, Agreement No. 1-AG-60-01460:** Transfers wildlife management of Stateline Island to the North Platte NWR.
- **Memorandum of Understanding Between the U.S. Fish and Wildlife Service and Nebraska Game and Parks Commission Regarding Fisheries Management of Winters Creek Lake, 1985, Agreement No. 14-16-0006-86-982:** Defines how respective agencies are to cooperatively manage the fishery on this Refuge lake.
- **Final Environmental Assessment - Recreation Management on the Lake Minatare Unit of the North Platte National Wildlife Refuge, April, 1995:** Delineates conditions and considerations under which the Service would be willing and support a divestiture of those lands being managed as the Lake Minatare State Recreation Area.

Refuge management is also bounded by Title 50 of the Code of Federal Regulations and the following myriad of Federal Acts:

Antiquities Act (1906): Authorizes the scientific investigation of antiquities on Federal land and provides penalties for unauthorized removal of objects taken or collected without a permit.

Executive Order 2446 (August 21, 1916): Establishes the North Platte National Wildlife Refuge, "...reserved, subject to Reclamation Service uses...as a preserve and breeding ground for native birds."

Migratory Bird Treaty Act (1918): Designates the protection of migratory birds as a Federal responsibility. This Act enables the setting of seasons, and other regulations including the closing of areas, Federal or non-Federal, to the hunting of migratory birds.

Migratory Bird Conservation Act (1929): Establishes procedures for acquisition by purchase, rental, or gift of areas approved by the Migratory Bird Conservation Commission.

Migratory Bird Hunting and Conservation Stamp Act (1934): Authorized the opening of part of a refuge to waterfowl hunting.

Fish and Wildlife Act (1956): Established a comprehensive national fish and wildlife policy and broadened the authority for acquisition and development of refuges.

Fish and Wildlife Coordination Act (1958): Allows the Fish and Wildlife Service to enter into agreements with private landowners for wildlife management purposes.

Refuge Recreation Act (1962): Allows the use of refuges for recreation when such uses are compatible with the refuge's primary purposes and when sufficient funds are available to manage the uses.

Land and Water Conservation Fund Act (1965): Uses the receipts from the sale of surplus Federal land, outer continental shelf oil and gas sales, and other sources for land acquisition under several authorities.

National Wildlife Refuge System Administration Act of 1966 as amended by the National Wildlife Refuge System Improvement Act of 1997, 16 U.S.C. 668dd-668ee. (Refuge Administration Act): Defines the National Wildlife Refuge System and authorizes the Secretary to permit any use of a refuge provided such use is compatible with the major purposes for which the refuge was established. The Refuge Improvement Act clearly defines a unifying mission for the Refuge System; establishes the legitimacy and appropriateness of the six priority public uses (hunting, fishing, wildlife observation and photography, or environmental education and interpretation); establishes a formal process for determining compatibility; established the responsibilities of the Secretary of Interior for managing and protecting the System; and requires a Comprehensive Conservation Plan for each refuge by the year 2012. This Act amended portions of the Refuge Recreation Act and National Wildlife Refuge System Administration Act of 1966.

National Historic Preservation Act (1966) as amended: Establishes as policy that the Federal Government is to provide leadership in the preservation of the nation's prehistoric and historic resources.

Architectural Barriers Act (1968): Requires federally owned, leased, or funded buildings and facilities to be accessible to persons with disabilities.

National Environmental Policy Act (1969): Requires the disclosure of the environmental impacts of any major Federal action significantly affecting the quality of the human environment.

Endangered Species Act (1973): Requires all Federal agencies to carry out programs for the conservation of endangered and threatened species.

Rehabilitation Act (1973): Requires programmatic accessibility in addition to physical accessibility for all facilities and programs funded by the Federal government to ensure that anybody can participate in any program.

Archaeological and Historic Preservation Act (1974): Directs the preservation of historic and archaeological data in Federal construction projects.

Clean Water Act (1977): Requires consultation with the Corps of Engineers (404 permits) for major wetland modifications.

American Indian Religious Freedom Act (1978): Directs agencies to consult with native traditional religious leaders to determine appropriate policy changes necessary to protect and preserve Native American religious cultural rights and practices.

Public Law 94-233: The “Game Range Bill” was passed in 1976 and mandates that all National Wildlife Refuges under the Secretary of Interior will be administered by the Service.

Archaeological Resources Protection Act (1979) as amended: Protects materials of archaeological interest from unauthorized removal or destruction and requires Federal managers to develop plans and schedules to locate archaeological resources.

Emergency Wetlands Resources Act (1986): The purpose of the Act is “To promote the conservation of migratory waterfowl and to offset or prevent the serious loss of wetlands by the acquisition of wetlands and other essential habitat, and for other purposes.”

Federal Noxious Weed Act (1990): Requires the use of integrated management systems to control or contain undesirable plant species; and an interdisciplinary approach with the cooperation of other Federal and State agencies.

Americans With Disabilities Act (1992): Prohibits discrimination in public accommodations and services.

House Resolution 2679: This bill, passed in 1995, removed from the National Wildlife Refuge System portions of the Refuge that had been developed to serve as the Lake Minatare State Recreation Area.

Executive Order 12996 Management and General Public Use of the National Wildlife Refuge System (1996): Defines the mission, purpose, and priority public uses of the National Wildlife Refuge System. It also presents four principles to guide management of the System.

Volunteer and Community Partnership Enhancement Act (1998): The purposes of this Act are to encourage the use of volunteers to assist in the management of refuges within the Refuge System; to facilitate partnerships between the Refuge System and non-Federal entities to promote public awareness of the resources of the Refuge System and public participation in the conservation of the resources and; to encourage donations and other contributions.

Appendix D. Operation and Maintenance Needs

The Refuge Operation Needs System (RONS) is a comprehensive, Servicewide database containing the unfunded operational needs of each refuge. The following list of projects for the North Platte NWR, in priority order, are those required to implement approved plans, and meet goals, objectives, and legal mandates. More specific information about each project can be found in the database on file at the Refuge headquarters.

Refuge Operation Needs System (RONS) Projects			
Project	Links to CCP Goal	FTE Cost (2000 dollars)	Other Cost (2000 dollars)
Private Lands Program	7, 8, 10	\$58,000	\$65,000
Deputy Project Leader-Complex*	1-10	80,000	65,000
Upland habitat restoration	4, 5	12,000	12,000
Public Use Specialist-Complex	7, 8, 10	73,000	65,000
Clerk (GS-4)	1-10	42,000	65,000
Biological Technician (GS-7)	1-10	49,000	95,000
Accessible fishing pier	7		67,000
Water budget module	6		32,000
Stateline Island: Env. Edu. package	8		38,000
Cooperative exhibit at NGPC facility	7, 10		38,000
Biological Technician (GS-5)	1-10	42,000	65,000
Assistant Refuge Manager	1-10	48,000	50,000
Laborer	1-10	45,000	65,000
Youth Conservation Corps Leader	1-10	11,000	39,000
TOTALS		\$460,000	\$761,000

*Complex denotes project or MMS need is shared with Crescent Lake NWR

The Maintenance Management System (MMS) documents, Servicewide, facility and equipment deficiencies, justifies budget requests for maintenance needs, and provides a basis for management decision-making. The Refuge maintenance backlog is \$324,000. The following MMS projects for the North Platte NWR are listed in priority order. MMS projects without priority are not shown here. More specific information about each maintenance need can be found in the database on file at the Refuge headquarters.

Priority MMS Needs and Cost (1999 dollars)		
Project	Links to CCP Goal	Cost
Repair/replace 29 miles of fence	4	\$63,000
Replace above ground fuel storage tank*	1-10	8,000
Upgrade Winters Creek Lake boat ramp	7	13,000
Upgrade Winters Creek Unit entrance road	7	20,000
Replace radio system with high band*	1-10	100,000
Replace steel storage building	1-10	27,000
Replace public use signs*	7, 8, 10	10,000

*Complex denotes project or MMS need is shared with Crescent Lake NWR

Appendix E. Compatibility Determinations

Station Name:

North Platte National Wildlife Refuge

Date Established:

August 21, 1916

Establishing and Acquisition Authorities:

The North Platte Bird Reservation was established by Executive Order #2446, signed by President Woodrow Wilson on August 21, 1916. The name of the reservation was changed to North Platte National Wildlife Refuge on July 25, 1940 via Proclamation #2416.

Purposes For Which The Refuge Was Established:

“...reserved, subject to Reclamation Service uses...as a preserve and breeding ground for native birds.”

National Wildlife Refuge System Mission:

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 fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generation of Americans.”

Description of Proposed Use:

Wildlife Observation, Wildlife Photography, Interpretation and Environmental Education

Approximately 4,000 people visit the Refuge annually. About 45 percent of these visitors engage in interpretation and/or nature observation activities. About 30 percent are engaged in some formal environmental education activity. Information kiosks are located at five Refuge entrances. These kiosks contain general Refuge information, maps, specific information on wildlife habitat management, and leaflet dispensers. For the past six years, Refuge staff have hosted a mid-October nature walk through the Stateline Island Unit and a mid-December waterfowl and eagle viewing opportunity at Lake Minatare.

Off-site, about 1,000 students, parents, and educators annually participate in Refuge programs such as “Water Wonders,” “Branch Out,” “Earth Stewards,” “Environ-Art,” and the “Nebraska Jr. Duck Stamp” program. Some requests for educational programs and technical assistance are denied each year due to staffing shortages.

A Refuge web site has been operational since 1998: <http://www.r6.fws.gov/crescentlake/>

The Comprehensive Conservation Plan proposes to continue with the above uses and improve interpretation and access for visitors through the following actions:

- Shorten the closure period (closed to public use) for the Lake Alice, Winters Creek, and Lake Minatare Units to October 15 to January 15.
- Eliminate the “closed to all public entry” designation currently covering the west half of the Lake Alice Unit.
- Construct an observation overlook along the east dam at Lake Alice.
- Acquire from the public domain, Scottsbluff Island to be developed as an environmental educational facility.
- Develop an interpretive river-walk trail on Stateline Island.
- Develop a visitor contact station, staffed on a part-time basis, at Winters Creek Unit for formal and informal on-site interpretation and education.

Availability of resources:

Sufficient resources are available to continue the existing wildlife observation, photography, interpretation and environmental education opportunities. Many of the additional, proposed actions to be added from the Comprehensive Conservation Plan are linked to funding requests in the form of RONS projects (Appendix D).

Anticipated impacts of the use:

Construction of needed interpretive facilities will have short-term and minor adverse impacts. Some disturbance to wildlife will occur in areas of the Refuge frequented by visitors. However, with limiting areas open to public access and limiting public access to seasonal use, these impacts can be lessened.

Justification:

Based upon biological impacts described in the CCP and the Environmental Assessment (Appendix J), it is determined that wildlife observation, wildlife photography, interpretation, and environmental education within the Refuge will not materially interfere with or detract from the purpose for which the Refuge was established. Indeed, such activities are directly supportive of the Refuge purpose and provide opportunities to inform visitors about wildlife conservation and management and the National Wildlife Refuge System.

Determination:

Wildlife observation, wildlife photography, interpretation, and environmental education **are compatible**.

Stipulations necessary to ensure compatibility:

- ✓ During peak migration, areas will be closed and access limited to minimize any disturbance to wildlife.
- ✓ When necessary, impose temporary closure zones around nests of known bird species of management concern.

Description of Proposed Use:

Recreational Fishing

Fishing is permitted on both Refuge reservoirs and from Stateline Island along the North Platte River. About 2,000 people fished the Refuge in 1999, mostly on Winters Creek Lake where a boat ramp and parking area is provided. Lake Alice cannot sustain a fishery because most water is removed for irrigation by late summer and is not replaced until spring. Lake Minatare proper, while no longer within the Refuge boundary, adjoins the Lake Minatare Unit and receives about 80,000 fishing visits annually.

Refuge regulations permit the use of boats but prohibit the use of internal combustion engines.

The Comprehensive Conservation Plan proposes to expand fishing opportunities by working with other agencies in seeking ways and means of developing Lake Alice as a sport fisheries.

Availability of resources:

Sufficient resources are available to continue the existing recreational fishing activity. The development of Lake Alice as a sport fisheries will be dependent on many variables not the least of which are the needs of water by other stakeholders and the determination of a Federal reserve water right for the Refuge. Additional facilities to be added from the Comprehensive Conservation Plan are tied to funding requests as described in Appendix D.

Anticipated impacts of the use:

Some disturbance to wildlife will occur in areas of the Refuge frequented by the fishing public. However, with limiting areas open to public access, limiting boat motors, and limiting public access to seasonal use, these impacts can be lessened.

Justification:

Based upon biological impacts described in the CCP and the Environmental Assessment (Appendix J), it is determined that recreational fishing within the Refuge will not materially interfere with or detract from the purpose for which the Refuge was established. Further, fishing has been identified as a priority public use in the National Wildlife Refuge System Improvement Act of 1997 when this activity is compatible with the Refuge purpose.

Determination:

Recreational fishing, as described, **is compatible**.

Stipulations necessary to ensure compatibility:

- ✓ During peak migration, areas will be closed and access limited to minimize any disturbance to wildlife.
- ✓ When necessary, impose temporary closure zones around nests of known bird species of management concern.
- ✓ Internal combustion boat motors will be prohibited.

Description of Proposed Use:

Recreational Hunting

While hunting has never been a permitted public use activity on the Refuge, the request to consider such opportunities was raised during the scoping portion of the CCP process. As a result of such planning efforts, the Service now seeks to expand wildlife-dependent recreation by opening the Lake Alice Unit to hunting, from January 15 through October 14, in accordance with State regulations, of game mammals and pheasants.

Before a Refuge can be opened to hunting, a Hunting Plan must be approved by the Director of the Service and the proposal published in the Federal Register.

Availability of resources:

Should a Hunting Plan be approved, extra funding will be initially required to produce necessary signing and brochures. Beyond such, current resources are adequate to manage a limited hunting program.

Anticipated impacts of the use:

Hunting will remove individual animals from the wildlife populations. Some disturbance to wildlife will occur in areas of the Refuge open to hunting. However, with limiting areas open to hunting and limiting public access to seasonal use, these impacts can be lessened.

Justification:

Based upon biological impacts described in the CCP and the Environmental Assessment (Appendix J), it is determined that recreational hunting within the Refuge will not materially interfere with or detract from the purpose for which the Refuge was established. Further, hunting has been identified as a priority public use in the National Wildlife Refuge System Improvement Act of 1997 when this activity is compatible with the Refuge purpose.

Determination:

Hunting, as described, **is compatible**.

Stipulations necessary to ensure compatibility:

- ✓ Hunting of native birds (mourning doves, snipe, turkey, rail, crow, quail, grouse, waterfowl, etc.) would **not** be compatible with the Refuge purpose of serving "as a preserve and breeding ground for native birds."
- ✓ During peak migration, areas will be closed to the public and access limited to minimize any disturbance to wildlife.
- ✓ Public hunting on the other Refuge units (Stateline Island, Lake Minatare, and Winters Creek Lake) is not proposed at this time because of their diminutive size and/or close proximity to neighboring residences.

Description of Proposed Use:

Economic Management Tools (Grazing and Haying)

Continue upland management activities that are conducted under permit by private individuals: grazing and haying. Currently, these economic uses are used as management tools to manage habitat for wildlife. Such tools are used to control undesirable vegetation and promote vigor of preferred grasses for improved wildlife habitat.

Availability of resources:

Current resources are stretched to maintain existing upland management programs (to include prescribe burning and integrated pest management). If additional staff were available, as identified in Section V of the CCP, such tools would be utilized more effectively, and the necessary monitoring could be accomplished.

Anticipated impacts of the use:

Properly managed, grazing and haying activities can improve wildlife habitat conditions.

While some temporary disturbance to wildlife will occur during grazing and haying activities, the benefits to wildlife far outweigh these disturbances.

Justification:

Upland habitat conditions would deteriorate without the use of a full range of upland management tools. Exotic and noxious weed species would increase and habitat diversity would decrease causing a decline in wildlife diversity. Migratory bird production and diversity would decrease as nesting habitat for these species declined.

Determination:

Grazing and haying, when used as management tools, **are compatible.**

Stipulations necessary to ensure compatibility:

- ✓ General and specific conditions are required for each permit to ensure consistency with management objectives.

Signatures:

Project Leader

Date: _____

Concurrence:

Ken McDermond, Regional Chief, NWRS

Date: _____

Appendix F. List of Animal and Plant Species

Birds

Names are in accordance with the American Ornithological Union check list. Birds known to nest on the Refuge are marked with a closed dot (●). Those suspected to nest at least occasionally, but needing further confirmation, are marked with an open dot (○).

Loons

Pacific Loon	<i>Gavia pacifica</i>
Common Loon	<i>Gavia immer</i>

Grebes

○ Pied-billed Grebe	<i>Podilymbus podiceps</i>
Horned Grebe	<i>Podiceps auritus</i>
Red-necked Grebe	<i>Podiceps grisegena</i>
Eared Grebe	<i>Podiceps nigricollis</i>
Western Grebe	<i>Aechmophorus occidentalis</i>
Clark's Grebe	<i>Aechmophorus clarkii</i>

Pelicans

American White Pelican	<i>Pelecanus erythrorhynchos</i>
------------------------	----------------------------------

Cormorants

● Double-crested Cormorant	<i>Phalacrocorax auritus</i>
----------------------------	------------------------------

Bitterns, Herons, and Egrets

American Bittern	<i>Botaurus lentiginosus</i>
● Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Ardea alba</i>
Cattle Egret	<i>Bubulcus ibis</i>
Green Heron	<i>Butorides virescens</i>
● Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>
Yellow-crowned Night-Heron	<i>Nyctanassa violaceus</i>

Ibises and Spoonbills

White-faced Ibis	<i>Plegadis chihi</i>
------------------	-----------------------

New World Vultures

Turkey Vulture	<i>Cathartes aura</i>
----------------	-----------------------

Swans, Geese, and Ducks

Greater White-fronted Goose	<i>Anser albifrons</i>
Snow Goose	<i>Chen caerulescens</i>
Ross' Goose	<i>Chen rossii</i>
● Canada Goose	<i>Branta canadensis</i>
Trumpeter Swan	<i>Cygnus buccinator</i>
Tundra Swan	<i>Cygnus columbianus</i>
● Wood Duck	<i>Aix sponsa</i>
Gadwall	<i>Anas strepera</i>
American Wigeon	<i>Anas americana</i>
● Mallard	<i>Anas platyrhynchos</i>
● Blue-winged Teal	<i>Anas discors</i>
Cinnamon Teal	<i>Anas cyanoptera</i>
Northern Shoveler	<i>Anas clypeata</i>
Northern Pintail	<i>Anas acuta</i>
Green-winged Teal	<i>Anas crecca</i>
Canvasback	<i>Aythya valisineria</i>
Redhead	<i>Aythya americana</i>
Ring-necked Duck	<i>Aythya collaris</i>
Lesser Scaup	<i>Aythya affinis</i>
Surf Scoter	<i>Melanitta perspicillata</i>
White-winged Scoter	<i>Melanitta fusca</i>
Long-tailed Duck	<i>Clangula hyemalis</i>
Bufflehead	<i>Bucephala albeola</i>
Common Goldeneye	<i>Bucephala clangula</i>
Barrow's Goldeneye	<i>Bucephala islandica</i>
Hooded Merganser	<i>Lophodytes cucullatus</i>

Common Merganser
Red-breasted Merganser
Ruddy Duck

Mergus merganser
Mergus serrator
Oxyura jamaicensis

Osprey, Kites, Hawks, and Eagles

Osprey	<i>Pandion haliaetus</i>
● Bald Eagle	<i>Haliaeetus leucocephalus</i>
Northern Harrier	<i>Circus cyaneus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Harris' Hawk	<i>Parabuteo unicinctus</i>
Red-shouldered Hawk	<i>Buteo lineatus</i>
Broad-winged Hawk	<i>Buteo platypterus</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
● Red-tailed Hawk	<i>Buteo jamaicensis</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Rough-legged Hawk	<i>Buteo lagopus</i>
Golden Eagle	<i>Aquila chrysaetos</i>

Falcons and Caracaras

● American Kestrel	<i>Falco sparverius</i>
Merlin	<i>Falco columbarius</i>
Peregrine Falcon	<i>Falco peregrinus</i>
Prairie Falcon	<i>Falco mexicanus</i>

Gallinaceous Birds

○ Ring-necked Pheasant	Introduced	<i>Phasianus colchicus</i>
○ Sharp-tailed Grouse		<i>Tympanuchus phasianellus</i>
● Wild Turkey		<i>Meleagris gallopavo</i>
Northern Bobwhite		<i>Colinus virginianus</i>

Rails

Virginia Rail	<i>Rallus limicola</i>
Sora	<i>Porzana carolina</i>
● American Coot	<i>Fulica americana</i>

Cranes

Sandhill Crane	<i>Grus canadensis</i>
----------------	------------------------

Plovers

Black-bellied Plover	<i>Pluvialis squatarola</i>
Semipalmated Plover	<i>Charadrius semipalmatus</i>
○ Killdeer	<i>Charadrius vociferus</i>

Stilts and Avocets

Black-necked Stilt	<i>Himantopus mexicanus</i>
American Avocet	<i>Recurvirostra americana</i>

Sandpipers and Phalaropes

Greater Yellowlegs	<i>Tringa melanoleuca</i>
Lesser Yellowlegs	<i>Tringa flavipes</i>
Solitary Sandpiper	<i>Tringa solitaria</i>
Willet	<i>Catoptrophorus semipalmatus</i>
Spotted Sandpiper	<i>Actitis macularia</i>
Upland Sandpiper	<i>Bartramia longicauda</i>
Long-billed Curlew	<i>Numenius americanus</i>
Marbled Godwit	<i>Limosa fedoa</i>
Ruddy Turnstone	<i>Arenaria interpres</i>
Sanderling	<i>Calidris alba</i>
Semipalmated Sandpiper	<i>Calidris pusilla</i>
Western Sandpiper	<i>Calidris mauri</i>
Least Sandpiper	<i>Calidris minutilla</i>
White-rumped Sandpiper	<i>Calidris fuscicollis</i>
Baird's Sandpiper	<i>Calidris bairdii</i>
Pectoral Sandpiper	<i>Calidris melanotos</i>
Dunlin	<i>Calidris alpina</i>
Stilt Sandpiper	<i>Calidris himantopus</i>
Buff-breasted Sandpiper	<i>Tryngites subruficollis</i>
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>
Common Snipe	<i>Gallinago gallinago</i>

Wilson's Phalarope		<i>Phalaropus tricolor</i>	Larks	
Red-necked Phalarope		<i>Phalaropus lobatus</i>	● Horned Lark	<i>Eremophila alpestris</i>
Skuas, Jaegers, Gulls, and Terns			Swallows	
Franklin's Gull		<i>Larus pipixcan</i>	● Tree Swallow	<i>Tachycineta bicolor</i>
Bonaparte's Gull		<i>Larus philadelphia</i>	● Violet-green Swallow	<i>Tachycineta thalassina</i>
Ring-billed Gull		<i>Larus delawarensis</i>	○ Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
California Gull		<i>Larus californicus</i>		<i>Riparia riparia</i>
Herring Gull		<i>Larus argentatus</i>	● Bank Swallow	<i>Petrochelidon pyrrhonota</i>
Glaucous Gull		<i>Larus hyperboreus</i>	● Cliff Swallow	<i>Hirundo rustica</i>
Sabine's Gull		<i>Xema sabini</i>	● Barn Swallow	
Black-legged Kittiwake		<i>Rissa tridactyla</i>	Titmice and Chickadees	
Caspian Tern		<i>Sterna caspia</i>	● Black-capped Chickadee	<i>Poecile atricapillus</i>
Common Tern		<i>Sterna hirundo</i>	● Mountain Chickadee	<i>Poecile gambeli</i>
Forster's Tern		<i>Sterna forsteri</i>		
Black Tern		<i>Chlidonias niger</i>	Nuthatches	
Pigeons and Doves			● Red-breasted Nuthatch	<i>Sitta canadensis</i>
Rock Dove	Introduced	<i>Columba livia</i>	○ White-breasted Nuthatch	<i>Sitta carolinensis</i>
● Mourning Dove		<i>Zenaidura macroura</i>	Creepers	
Cuckoos and Anis			● Brown Creeper	<i>Certhia americana</i>
Yellow-billed Cuckoo		<i>Coccyzus americanus</i>	Wrens	
Barn Owls			● Rock Wren	<i>Salpinctes obsoletus</i>
Barn Owl		<i>Tyto alba</i>	● House Wren	<i>Troglodytes aedon</i>
Typical Owls			● Marsh Wren	<i>Cistothorus palustris</i>
● Eastern Screech-Owl		<i>Otus asio</i>	Kinglets	
● Great Horned Owl		<i>Bubo virginianus</i>	● Golden-crowned Kinglet	<i>Regulus satrapa</i>
Nightjars			● Ruby-crowned Kinglet	<i>Regulus calendula</i>
○ Common Nighthawk		<i>Chordeiles minor</i>	Thrushes	
● Common Poorwill		<i>Phalaenoptilus nuttallii</i>	● Eastern Bluebird	<i>Sialia sialis</i>
Kingfishers			● Mountain Bluebird	<i>Sialia currucoides</i>
○ Belted Kingfisher		<i>Ceryle alcyon</i>	● Townsend's Solitaire	<i>Myadestes townsendi</i>
Woodpeckers			● Veery	<i>Catharus fuscescens</i>
○ Red-headed Woodpecker		<i>Melanerpes erythrocephalus</i>	● Swainson's Thrush	<i>Catharus ustulatus</i>
● Red-naped Sapsucker		<i>Sphyrapicus nuchalis</i>	● Hermit Thrush	<i>Catharus guttatus</i>
● Downy Woodpecker		<i>Picoides pubescens</i>	● American Robin	<i>Turdus migratorius</i>
● Hairy Woodpecker		<i>Picoides villosus</i>	● Varied Thrush	<i>Ixoreus naevius</i>
● Northern Flicker		<i>Colaptes auratus</i>	Mimic Thrushes	
Tyrant Flycatchers			● Gray Catbird	<i>Dumetella carolinensis</i>
○ Olive-sided Flycatcher		<i>Contopus cooperi</i>	● Sage Thrasher	<i>Oreoscoptes montanus</i>
○ Western Wood-Pewee		<i>Contopus sordidulus</i>	● Brown Thrasher	<i>Toxostoma rufum</i>
● Willow Flycatcher		<i>Empidonax traillii</i>	Starlings	
● Least Flycatcher		<i>Empidonax minimus</i>	○ European Starling	<i>Sturnus vulgaris</i>
● Cordilleran Flycatcher		<i>Empidonax occidentalis</i>	Wagtails and Pipits	
● Say's Phoebe		<i>Sayornis saya</i>	● American (Water) Pipit	<i>Anthus rubescens</i>
● Great Crested Flycatcher		<i>Myiarchus crinitus</i>	Waxwings	
● Cassin's Kingbird		<i>Tyrannus vociferans</i>	● Cedar Waxwing	<i>Bombcilla cedrorum</i>
● Western Kingbird		<i>Tyrannus verticalis</i>	Wood Warblers	
○ Eastern Kingbird		<i>Tyrannus tyrannus</i>	● Tennessee Warbler	<i>Vermivora peregrina</i>
Shrikes			● Orange-crowned Warbler	<i>Vermivora celata</i>
○ Loggerhead Shrike		<i>Lanius ludovicianus</i>	● Yellow Warbler	<i>Dendroica petechia</i>
● Northern Shrike		<i>Lanius excubitor</i>	● Yellow-rumped Warbler	<i>Dendroica coronata</i>
Vireos			● Townsend's Warbler	<i>Dendroica townsendi</i>
● Warbling Vireo		<i>Vireo gilvus</i>	● Blackpoll Warbler	<i>Dendroica striata</i>
○ Red-eyed Vireo		<i>Vireo olivaceus</i>	● American Redstart	<i>Setophaga ruticilla</i>
Crows, Jays, and Magpies			● Ovenbird	<i>Seiurus aurocapillus</i>
● Blue Jay		<i>Cyanocitta cristata</i>	○ Common Yellowthroat	<i>Geothlypis trichas</i>
● Pinyon Jay		<i>Gymnorhinus cyanocephalus</i>	● Wilson's Warbler	<i>Wilsonia pusilla</i>
● Black-billed Magpie		<i>Pica pica</i>	● Yellow-breasted Chat	<i>Icteria virens</i>
● American Crow		<i>Corvus brachyrhynchos</i>	Tanagers	
			● Western Tanager	<i>Piranga ludoviciana</i>

Sparrows and Towhees

Spotted Towhee	<i>Pipilo maculatus</i>
American Tree Sparrow	<i>Spizella arborea</i>
Chipping Sparrow	<i>Spizella passerina</i>
Clay-colored Sparrow	<i>Spizella pallida</i>
Field Sparrow	<i>Spizella pusilla</i>
Vesper Sparrow	<i>Poocetes gramineus</i>
● Lark Sparrow	<i>Chondestes grammacus</i>
○ Lark Bunting	<i>Calamospiza melanocorys</i>
Savannah Sparrow	<i>Passerculus sandwichensis</i>
● Grasshopper Sparrow	<i>Ammodramus savannarum</i>
Baird's Sparrow	<i>Ammodramus bairdii</i>
● Song Sparrow	<i>Melospiza melodia</i>
Lincoln's Sparrow	<i>Melospiza lincolni</i>
Swamp Sparrow	<i>Melospiza georgiana</i>
White-throated Sparrow	<i>Zonotrichia albicollis</i>
Harris' Sparrow	<i>Zonotrichia querula</i>
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
McCown's Longspur	<i>Calcarius mccownii</i>
Lapland Longspur	<i>Calcarius lapponicus</i>
Chestnut-collared Longspur	<i>Calcarius ornatus</i>

Cardinals, Grosbeaks, and Allies

Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>
Blue Grosbeak	<i>Guiraca caerulea</i>

Blackbirds and Orioles

Bobolink	<i>Dolichonyx oryzivorus</i>
● Red-winged Blackbird	<i>Agelaius phoeniceus</i>
● Western Meadowlark	<i>Sturnella neglecta</i>
● Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>
● Common Grackle	<i>Quiscalus quiscula</i>
● Brown-headed Cowbird	<i>Molothrus ater</i>
● Orchard Oriole	<i>Icterus spurius</i>
Baltimore Oriole	<i>Icterus galbula</i>
● Bullock's Oriole	<i>Icterus bullockii</i>

Finches

Gray-crowned Rosy-Finch	<i>Leucosticte tephrocotis</i>
House Finch	<i>Carpodacus mexicanus</i>
Red Crossbill	<i>Loxia curvirostra</i>
Pine Siskin	<i>Carduelis pinus</i>
○ American Goldfinch	<i>Carduelis tristis</i>

Old World Sparrows

● House Sparrow	Introduced	<i>Passer domesticus</i>
-----------------	------------	--------------------------

Mammals

A thorough investigation of what mammals can be found utilizing the Refuge has not been conducted. The following list of Refuge mammals has been compiled from casual observations made in the past by staff and/or stakeholders.

Small-footed myotis	<i>Myotis lucifugus</i>
Silver-haired bat	<i>Lasionycteris noctivagans</i>
Big brown bat	<i>Eptesicus fuscus</i>
Hoary bat	<i>Lasiurus cinereus</i>
Deer mouse	<i>Peromyscus maniculatus</i>
Hispid pocket mouse	<i>Perognathus hispidus</i>
Ord's kangaroo rat	<i>Dipodomys ordii</i>
Plains harvest mouse	<i>Reithrodontomys montanus</i>
Muskrat	<i>Ondatra zibethicus</i>
Beaver	<i>Castor canadensis</i>
Raccoon	<i>Procyon lotor</i>
Coyote	<i>Canis latrans</i>
Mink	<i>Mustela vison</i>
Opossum	<i>Didelphis virginiana</i>
Badger	<i>Taxidea taxus</i>
Red fox	<i>Vulpes vulpes</i>
Mule deer	<i>Odocoileus hemionus</i>
White-tailed deer	<i>Odocoileus virginianus</i>
Eastern cottontail	<i>Sylvilagus floridanus</i>
Fox squirrel	<i>Sciurus niger</i>
Striped skunk	<i>Mephitis mephitis</i>

Amphibians and Reptiles

A thorough investigation of what amphibians and reptiles can be found utilizing the Refuge has not been conducted. The following list of Refuge amphibians and reptiles has been compiled from casual observations made in the past by staff and/or stakeholders.

Tiger Salamander	<i>Ambystoma tigrinum</i>
Western Chorus Frog	<i>Pseudacris triseriata</i>
Bullfrog	<i>Rana catesbeiana</i>
Northern Leopard Frog	<i>Rana pipiens</i>
Common Snapping Turtle	<i>Chelydra serpentina</i>
Prairie Racerunner	<i>Cnemidophorus sexlineatus</i>
Bullsnake	<i>Pituophis catenifer</i>
Plains Garter Snake	<i>Thamnophis radix</i>
Prairie Rattlesnake	<i>Crotalus viridis</i>

Fish

Refuge reservoirs are man made, thus all fish have been introduced, either intentionally or otherwise. Unintentional fish enter the lakes via the inlet canals each year when water is diverted into the reservoirs. Intentional introductions are those game fish stocked for recreational purposes at Winters Creek Lake. Fish species include carp, walleye, yellow perch, white bass, catfish, carp sucker, and bullhead. A variety of native and introduced fish species can be found using the North Platte River at Stateline Island. Such species would include carp, bullhead, and catfish.

Mollusk

A thorough investigation of what mollusks use the Refuge has not been conducted. According to Steve Schainost, Fisheries Research Specialist (NGPC), two mussels have been found in Lake Minatare; paper floater (*Anodonta imbecillis*) and giant floater (*Anodonta grandis*). A third mussel, cylindrical papershell (*Anodontoidea ferussacianus*), is a likely resident but has not yet been documented.

Flora

The following list of plants found on the Refuge was compiled by seasonal Biological Technician, Pam Orr in 1993. The list of 179 plants, while useful, is not intended to be comprehensive.

<i>Abronia fragrans</i>	Heart's-delight	<i>Elymus canadensis</i>	Canada Wildrye
<i>Agropyron cristatum</i>	Crested Wheatgrass	<i>Equisetum hyemale</i>	Scouring Rush
<i>Agropyron elongatum</i>	Tall Wheatgrass	<i>Eragrostis trichodes</i>	Sand Lovegrass
<i>Agropyron smithii</i>	Western Wheatgrass	<i>Erigeron pumilus</i>	Low Fleabane
<i>Allium canadense</i>	Wild Onion	<i>Eriogonum annuum</i>	Umbrella Plant
<i>Althaea</i>	Hollyhock	<i>Erysimum asperum</i>	Western Wall Flower
<i>Ambrosia tomentosa</i>	Perennial Bursage	<i>Euphorbia dentata</i>	Wild Poinsettia
<i>Ambrosia trifida</i>	Giant Ragweed	<i>Euthamia graminifolia</i>	Grassleaf Goldenrod
<i>Andropogon gerardi</i>	Sand Bluestem	<i>Franseria discolor</i>	Skeleton-leaf Bursage
<i>Apocynum cannabinum</i>	Indian Hemp Dogbane	<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Arenaria hookeri</i>	Sandwort	<i>Gaura coccinea</i>	Scarlet Gaura
<i>Argemone polyanthemus</i>	Prickly Poppy	<i>Gaura parviflora</i>	Velvety Gaura
<i>Artemisia frigida</i>	Fringed Sage	<i>Gleditsia triacanthos</i>	Honey Locust
<i>Asclepias incarnate</i>	Swamp Milkweed	<i>Glycyrrhiza lepidota</i>	Wild Licorice
<i>Asclepias pumila</i>	Low Milkweed	<i>Grindelia squarrosa</i>	Curly-top Gumweed
<i>Asclepias speciosa</i>	Showy Milkweed	<i>Gutierrezia sarothrae</i>	Broom Snakeweed
<i>Asparagus officinalis</i>	Garden Asparagus-fern	<i>Haplopappus spinulosus</i>	Cutleaf Goldenweed
<i>Aster ericoides</i>	White Aster	<i>Helianthus annuus</i>	Common Sunflower
<i>Aster praealtus v.nebraska</i>	Willowleaf Aster	<i>Helianthus petiolaris</i>	Plains Sunflower
<i>Aster simplex</i>	Panicled Aster	<i>Hesperis matronalis</i>	Dames Rocket
<i>Aster tanacetifolius</i>	Tansyleaf Aster	<i>Hordeum jubatum</i>	Foxtail Barley
<i>Astragalus adsurgens</i>	Prairie Milk-vetch	<i>Ipomoea leptophylla</i>	Bush morning-glory
<i>Astragalus crassicaarpus</i>	Ground Plum	<i>Iva axillaris</i>	Marsh Elder
<i>Astragalus mollissimus</i>	Woolly Locoweed	<i>Juncus balticus</i>	Baltic Rush
<i>Bouteloua gracilis</i>	Blue Grama	<i>Juncus torreyi</i>	Torrey's Rush
<i>Bromus inermis</i>	Smooth Brome	<i>Koeleria pyramidata</i>	Prairie Junegrass
<i>Bromus tectorum</i>	Downy Brome	<i>Kuhnia eupatorioides</i>	False Boneset
<i>Calamovilfa longifolia</i>	Prairie sandreed	<i>Lactuca pulchella</i>	Blue Lettuce
<i>Calvatia cyathiformis</i>	Puff Ball	<i>Lactuca serriola</i>	Prickly Lettuce
<i>Calylophus serrulatus</i>	Tooth-Leaved Evening Primrose	<i>Lathyrus polymorphus</i>	Hoary Vetchling
<i>Cardamine</i>	Bitter Cress	<i>Lepidium virginicum</i>	Virginia Pepperweed
<i>Carduus nutans</i>	Musk Thistle	<i>Lesqterella ludoviciana</i>	Silvery Bladderpod
<i>Carex helnoshemsis</i>	Nebraska Sedge	<i>Liatris punctata</i>	Dotted Gayfeather
<i>Carex lanuginosa</i>	Woolly Sedge	<i>Linum sulcatum</i>	Grooved Flax
<i>Carex scoparia</i>	Broom Sedge	<i>Lippia cuneifolia</i>	Wedgeleaf Fog-fruit
<i>Carex stricta</i>	Strict Sedge	<i>Lithospermum</i>	Puccoon
<i>Carex vesicaria</i>	Inflated Sedge	<i>Lithospermum carolinense</i>	Hairy Puccoon
<i>Carex vulpinoidea</i>	Fox Sedge	<i>Lupinus argenteus</i>	Silvery Lupine
<i>Cenchrus incertus</i>	Field Sandbur	<i>Lycopus americanus</i>	Water Horehound
<i>Chenopodium gigantospermum</i>	Maple Leaf Goosefoot	<i>Lycopus uniflorus</i>	Northern Bugleweed
<i>Chorispora tenella</i>	Blue Mustard	<i>Lygodesmia juncea</i>	Skeletonweed
<i>Chrysopsis villosa</i>	Golden Aster	<i>Medicago sativa</i>	Alfalfa (cultivated)
Cirsium arvense	Canada Thistle	<i>Melilotus officinalis</i>	Yellow Sweet Clover
<i>Cirsium canescens</i>	Platte Thistle	<i>Mentha arvensis</i>	Wild Mint
<i>Cirsium flodmanii</i>	Flodman's Thistle	<i>Mentzelia decapetala</i>	Ten-petaled
<i>Cirsium ochrocentrum</i>	Yellow Spine Thistle	<i>Mentzelia Mirabilis hirsuta</i>	Hairy Four-o'clock
<i>Cirsium vulgare</i>	Bull Thistle	<i>Mirabilis linearis</i>	Narrowleaf Four-o'clock
<i>Cleome serrulata</i>	Rocky Mountain Bee Plant	<i>Mirabilis nyctaginea</i>	Wild Four-o'clock
<i>Conium maculatum</i>	Poison Hemlock	<i>Monarda pectinate</i>	Plains Beebalm
<i>Convolvulus arvensis</i>	Field Bindweed	<i>Muhlenbergia asperifolia</i>	Alkali Muhly
<i>Conyza canadensis</i>	Horseweed	<i>Myriophyllum verticillatu</i>	Whorled Water-milfoil
<i>Coryphantha vivipara</i>	Pincushion cactus	<i>Nepeta cataria</i>	Catnip
<i>Crepis rundinata</i>	Dandelion Hawksbeard	<i>Oenothera biennis</i>	Common Evening Primrose
<i>Croton texensis</i>	Texas Croton	<i>Oenothera coronapifolia</i>	Combleaf Evening Primrose
<i>Cryptantha thyrsoiflora</i>	Miner's Candle	<i>Oenothera nuttallii</i>	White-Stemmed Evening Primrose
<i>Dactylis glomerata</i>	Orchardgrass	<i>Oenothera speciosa</i>	Showy Evening Primrose
<i>Dalea candida</i>	White Prairie Clover	<i>Onopordum acanthium</i>	Scotch Thistle
<i>Dalea cylindriceps</i>	Massive Spike Prairie Clover	<i>Opuntia</i>	Prickly Pear Cactus
<i>Dalea purpurea</i>	Purple Prairie Clover	<i>Oryzopsis hymenoides</i>	Indian Ricegrass
<i>Delphinium virescens</i>	Plains Larkspur	<i>Oxytropis lambertii</i>	Lambert Crazyweed
<i>Descurainia pinnata</i>	Tansy Mustard	<i>Panicum capillare</i>	Witchgrass
<i>Descurainia sophia</i>	Flixweed	<i>Panicum virgatum</i>	Switchgrass
<i>Dyssodia papposa</i>	Fetid Marigold	<i>Penstemon albidus</i>	White Penstemon
<i>Echinocystis lobata</i>	Wild Cucumber	<i>Penstemon angustifolius</i>	Narrowleaf Penstemon
<i>Elaeagnus angustifolia</i>	Russian olive	<i>Penstemon canescens</i>	Gray Beardstongue
<i>Eleocharis erythropoda</i>	Red-Stemmed Spike Sedge	<i>Physalis subglabrata</i>	Smooth Ground Cherry
		<i>Plantago major</i>	Broadleaf Plantain
		<i>Plantago purshii</i>	Woolly Plantain
		<i>Poa compressa</i>	Canada Blue Grass
		<i>Polanisia trachysperma</i>	Roughseed Clammyweed
		<i>Polygonum</i>	Smartweed
		<i>Polygonum ramosissimum</i>	Tall Knotweed

<i>Populus deltoides</i>	Eastern Cottonwood
<i>Potentilla argentea</i>	Silvery Cinquefoil
<i>Psoralea argophylla</i>	Silver-leaf Scurf Pea
<i>Psoralea tenuiflora</i>	Wild Alfalfa
<i>Ranunculus</i>	Buttercup
<i>Ratibida columnifera</i>	Prairie Coneflower
<i>Ratibida pinnata</i>	Grayhead Prairie Coneflower
<i>Rorippa sinuata</i>	Yellow Cress
<i>Rosa woodsii</i>	Western Wild Rose
<i>Rumex crispus</i>	Curly Dock
<i>Rumex venosus</i>	Wild Begonia
<i>Russula variata</i>	Mushroom
<i>Salidago missouriensis</i>	Prairie Goldenrod
<i>Salix amygdaloides</i>	Peach-leaf Willow
<i>Saponaria officinalis</i>	Bouncing Bet
<i>Schizachyrium scoparium</i>	Little Bluestem
<i>Scirpus pungens</i>	Three-square Bulrush
<i>Scutellaria galericulata</i>	Marsh Skullcap
<i>Senecio plattensis</i>	Prairie Ragwort
<i>Sisymbrium altissimum</i>	Tumble Mustard
<i>Sisyrinchium montanum</i>	Blue-eyed Grass
<i>Smilacina stellata</i>	False Solomon's Seal
<i>Solanum americanum</i>	Common Nightshade
<i>Solanum dulcomara</i>	Bittersweet Nightshade
<i>Solanum rostratum</i>	Buffalo Bur
<i>Solidago canadensis</i>	Canada Goldenrod
<i>Sonchus asper</i>	Spiny Sow Thistle
<i>Sorghastrum nutans</i>	Indiangrass
<i>Spartina pectinate</i>	Prairie Cordgrass
<i>Sphaeralcea coccinea</i>	Red False Mallow
<i>Stipa comata</i>	Needle-and-Thread
<i>Tamarix ramosissima</i>	Saltcedar
<i>Teucrium canadense</i>	American Germander
<i>Thlaspi arvense</i>	Field Pennycress
<i>Tradescantia occidentalis</i>	Prairie Spiderwort
<i>Tragopogon dubius</i>	Western Salsify
<i>Tribulus terrestris</i>	Puncturevine
<i>Typha angustifolia</i>	Narrow-leaf Cattail
<i>Typha latifolia</i>	Broadleaf Cattail
<i>Verbascum thapsus</i>	Common Mullein
<i>Verbena bracteata</i>	Prostrate Vervain
<i>Verbena hastata</i>	Blue Vervain
<i>Verbena stricta</i>	Hoary Vervain
<i>Xanthium strumarium</i>	Common Cocklebur

Appendix G. Neotropical Migrants

Category 1* Neotropical Migrants		
NPNWR Nester	Species	National Trend
	Broad-winged Hawk	Possible increase
	Swainson's Hawk	Possible increase
	Peregrine Falcon	Endangered
	Merlin	Insufficient data
	Long-billed Curlew	Insufficient data
	Upland Sandpiper	Significant increase
	Yellow-billed Cuckoo	Significant decline
Likely	Common Nighthawk	Possible increase
Likely	Eastern Kingbird	Possible decline
Likely	Western Kingbird	Significant increase
	Cordilleran Flycatcher	Analysis incomplete
	Least Flycatcher	Possible decline
Likely	Western Wood-peewee	Possible decline
	Violet-green Swallow	Possible increase
	Bank Swallow	Possible increase
Likely	Rough-winged Swallow	Possible increase
Yes	Barn Swallow	Significant increase
Yes	Cliff Swallow	Possible increase
Yes	House Wren	Significant increase
	Swainson's Thrush	Possible increase
Likely	Red-eyed Vireo	Significant increase
Yes	Warbling Vireo	Significant increase
	Orange-crowned Warbler	Possible decline
Yes	Yellow Warbler	Significant increase
Likely	Common Yellowthroat	Possible decline
	Yellow-breasted Chat	Possible decline
	Wilson's Warbler	Possible increase
	American Redstart	Possible decline
	Bobolink	Possible decline
	Yellow-headed Blackbird	Significant increase
Yes	Orchard Oriole	Significant decline
Yes	Bullock's Oriole	Possible decline
	Western Tanager	Possible decline
	Black-headed Grosbeak	Possible decline
Likely	Lark Bunting	Significant decline
Yes	Grasshopper Sparrow	Significant decline
Yes	Lark Sparrow	Significant decline
	Chipping Sparrow	Stable
	Clay-colored Sparrow	Significant decline
	Lincoln's Sparrow	Significant increase

*Winter primarily south of the Mexican border. Supporting information: NEEDS ASSESSMENT: MONITORING NEOTROPICAL MIGRATORY BIRDS, JULY 1992

Category 2* Neotropical Migrants		
NPNWR Nester	Species	National Trend
	Turkey Vulture	Possible increase
	Sharp-shinned Hawk	Insufficient data
	Cooper's Hawk	Insufficient data
Yes	Red-tailed Hawk	Possible increase
	Ferruginous Hawk	Possible increase
	Golden Eagle	Possible decline
	Northern Harrier	Possible decline
	Prairie Falcon	Possible increase
Yes	American Kestrel	Possible increase
Yes	Killdeer	Possible increase
Yes	Mourning Dove	Significant increase
	Common Poorwill	Possible decline
Likely	Belted Kingfisher	Analysis incomplete
	Yellow-bellied Sapsucker	Possible increase
	Say's Phoebe	Possible decline
Yes	Horned Lark	Significant increase
Yes	Tree Swallow	Insufficient data
	Brown Creeper	Possible decline
	Rock Wren	Significant increase
Yes	American Robin	Possible increase
	Hermit Thrush	Possible increase
	Eastern Bluebird	Possible increase
	Mountain Bluebird	Possible decline
	Townsend's Solitaire	Insufficient data
	Ruby-crowned Kinglet	Possible decline
	Cedar Waxwing	Significant increase
Likely	Loggerhead Shrike	Significant decline
Yes	Western Meadowlark	Possible decline
Yes	Red-winged Blackbird	Possible decline
	Brewer's Blackbird	Possible decline
Yes	Brown-headed Cowbird	Possible increase
	Pine Siskin	Significant decline
Likely	American Goldfinch	Significant decline
	Rufous-sided Towhee	Significant decline
	Savannah Sparrow	Possible decline
	Vesper Sparrow	Possible decline
	White-crowned Sparrow	Significant decline
	White-throated Sparrow	Significant decline
	Song Sparrow	Possible decline
	McCown's Longspur	Insufficient data
	Chestnut-collared Longspur	Possible increase

*Species having more individuals wintering north of the Mexican border than south. Supporting information: NEEDS ASSESSMENT: MONITORING NEOTROPICAL MIGRATORY BIRDS, JULY 1992

Appendix H. Species of Management Concern

The following species are, or have been, found on the Refuge and are also identified as at least rare in Nebraska by the Nebraska Natural Heritage Program from a list last updated 5/23/96. Additionally, noted species have been listed in the USFWS's

Migratory Nongame Birds of Management Concern (1995). These species are of concern because of (1) documented or apparent population declines, (2) small or restricted populations, or (3) dependence on restricted or vulnerable habitats. The status and habitat requirements of the following species will be given primary consideration when management actions are planned and implemented.

KEY

State Rank

- S1 = Critically imperiled in Nebraska because of extreme rarity or because of some factor(s) making it especially vulnerable to extirpation from the State. (Typically 5 or fewer occurrences.)
- S2 = Imperiled in Nebraska because of rarity (6 to 20 occurrences or few remaining individuals) or because of some factor(s) making it very vulnerable to extirpation from the State.
- S3 = Rare and uncommon in Nebraska (on the order of 21 to 100 occurrences).
- SA = Accidental or casual in Nebraska. Includes birds recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside their usual range.

Federal Listing - As determined by the U.S. Fish and Wildlife Service

SMC = Species of Management Concern

LE = Listed Endangered

PE = Proposed for Listing as Endangered

LT = Listed Threatened

PT = Proposed for Listing as Threatened

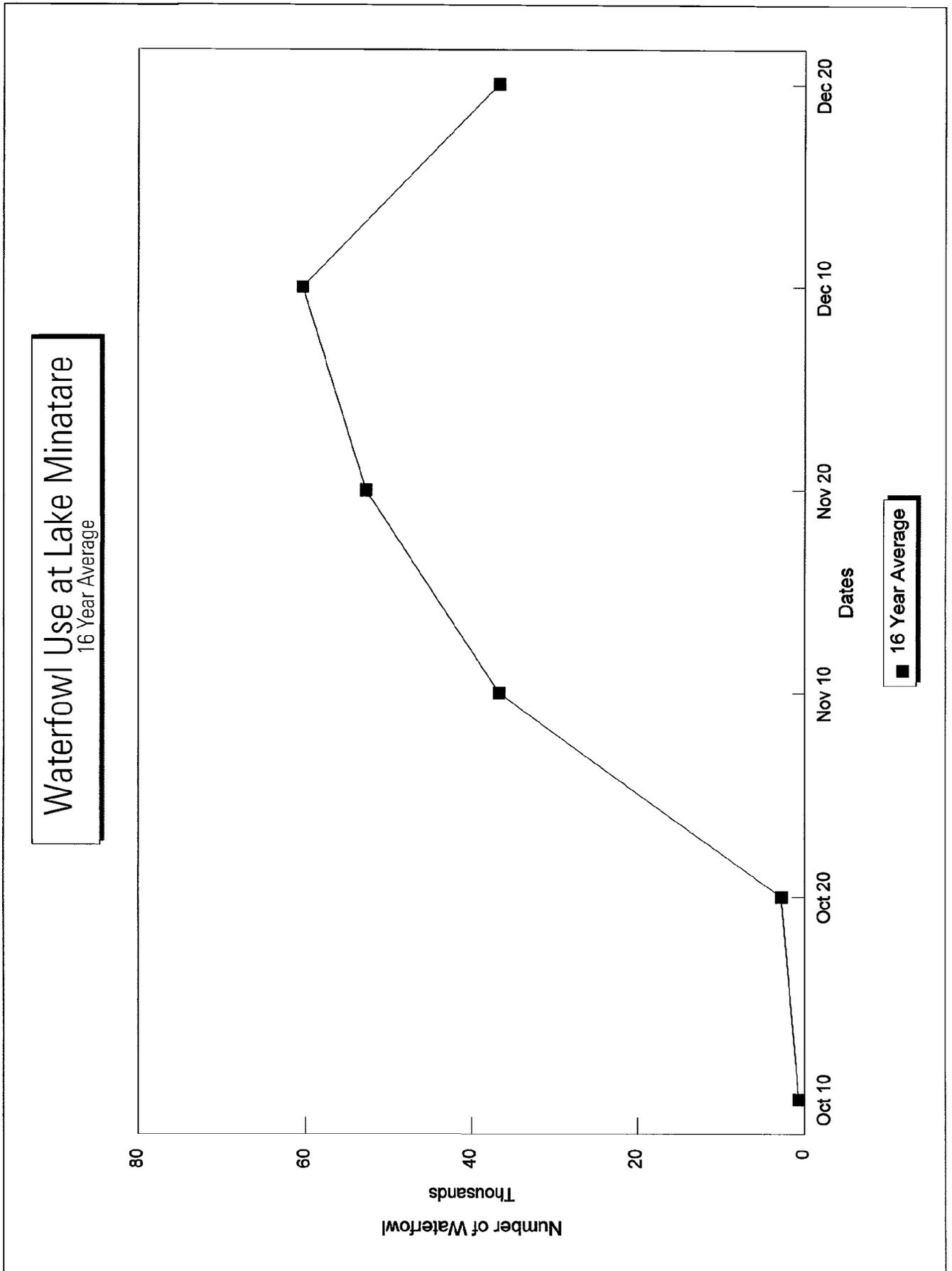
State Listing - As determined by the Nebraska Game and Parks Commission

E = Endangered

T = Threatened

Species of Management Concern		
BIRDS	State Rank	Species of Management Concern
Common Loon		SMC
American Bittern	S3	SMC
Black-crowned Night-Heron	S2	
White-faced Ibis	S1	SMC
Trumpeter Swan	S2	SMC
Canvasback	S3	
Bald Eagle	S1	LT/T
Northern Harrier	S3	SMC
Sharp-shinned Hawk	S1	
Cooper's Hawk	S1	
Northern Goshawk		SMC
Red-shouldered Hawk	S1	
Swainson's Hawk	S3	
Ferruginous Hawk	S2	SMC
Golden Eagle	S3	
Merlin	S1	
Peregrine Falcon	S3	
Black-necked Stilt	S1	
Upland Sandpiper		SMC
Long-billed Curlew	S3	SMC
Common Snipe	S2	
Forster's Tern	S3	
Black Tern	S3	SMC
Barn Owl		SMC
Common Poorwill	S2	
Red-headed Woodpecker		SMC
Olive-sided Flycatcher		SMC
Cordilleran Flycatcher	S1	
Violet-green Swallow	S3	
Brown Creeper	S3	
Townsend's Solitaire	S2	
Veery		SMC
Sage Thrasher	S1	
Loggerhead Shrike		SMC
Savannah Sparrow	S3	
Baird's Sparrow		SMC
Grasshopper Sparrow		SMC
Swamp Sparrow	S3	
McCown's Longspur	S3	SMC
Chestnut-collared Longspur	S2	SMC
PLANTS		
Wild Onion	<i>Allium canadense</i>	S3
Perennial Bursage	<i>Ambrosia tomentosa</i>	S1
Strict Sedge	<i>Carex stricta</i>	S1

Appendix I. Waterfowl Use at Lake Minatare



Appendix J. Environmental Assessment

I. Purpose of and Need for Refuge Management (Action)

II. Affected Environment

III. Alternatives and Impacts

Current Management Alternative (No Action)

Consequences of Implementing the Current

Management (No Action) Alternative

Proposed Management Alternative

Consequences of Implementing the Proposed

Management Alternative

IV. Cumulative Impacts and Mitigation

I. Purpose of and Need for Refuge Management (Action)

The purpose of management of the North Platte NWR is to maintain in perpetuity a representative sample of the natural habitats and associated wildlife in this part of the Nebraska Panhandle, with emphasis on native birds. The CCP also facilitates continuity of management and effective decision making to achieve these ends. The Plan is intended to provide long-range guidance for the management of this Refuge based on careful consideration of the physical and biological characteristics of the land base. It is designed to facilitate achievement of the Service mission and Refuge goals which center on the protection and enhancement of wildlife and their habitats and the provision of appropriate compatible public recreation.

The Service recognized the need for strategic planning for all the components of its Refuge System, and in September 1996, Executive Order 12996 was enacted which gave the Refuge System guidance on issues of compatibility and public uses of its land. Later on, Congress passed the National Wildlife Refuge System Improvement Act in October 1997, which, for the first time in the Refuge System's history, required that Comprehensive Conservation Plans be prepared for all refuges within 15 years.

The comprehensive conservation planning effort is intended to help this Refuge meet the changing needs of wildlife species and the public. The planning effort provided the opportunity to meet with Refuge neighbors, stakeholders, partners, other agencies, and the local community to ensure that this Plan was relevant and truly addressed natural resource issues and public interest.

This Environmental Assessment (EA) will accompany the North Platte NWR CCP. Both of these documents will be available for public review and comment prior to the issuance of a final CCP.

II. Affected Environment

For a complete narrative of the affected environment, see Section III; Refuge and Resource Descriptions, in the CCP.

III. Alternatives and Impacts

Two management alternatives were examined in the Environmental Assessment for this Plan. Both alternatives were evaluated based on their physical, biological, economical, and social factors as well as their responsiveness to the purpose for which the Refuge was established.

Current Management (No Action)

Continuing current management activities and public use

- Accomplish native bird management actions to the extent possible.
- Continue limited flexibility in habitat management programs including control of exotic and invading species, grazing, prescribe burning, and rest.
- Effect limited biological monitoring of animal populations.
- Continue cooperative agreements and partnerships in place.
- Effect minimal protection of Refuge resources.
- Refuge visitor facilities in-place would receive minor repairs or improvements. No major projects would be proposed. Recreational opportunities and visitor services would not be expanded.

Consequences of Implementing the Current Management (No Action) Alternative

Impacts on Wildlife and Habitat - Implementing the No Action alternative would assume no significant changes in Refuge operations. This alternative offers a minimal level of protection for the natural resources of the Refuge without a planned long-term management approach. By adopting the No Action alternative, the Refuge would anticipate no negative impacts to the overall landscape. Unlike the proposed alternative, efforts to restore native vegetation would be minimal. There would be no pursuit of a Federal reserve water-right. While the existing management would have no negative effects on biological resources, a lack of a strategic context of publicly accepted goals and objectives would make it difficult for Refuge Managers to implement resource priorities and justify annual budget requests. Indirectly, this could slow progress toward improving habitat and wildlife conditions.

Impacts on Endangered and Threatened Species - No adverse impacts on listed species are anticipated under current management practices. Existing fishing and non-consumptive, wildlife oriented public uses have been reviewed and determined not to impact bald eagles and their habitats. Under current Refuge management strategies, the protection of bald eagles is a primary concern; future conflicts regarding public use development would always be resolved in favor of this and other listed species. Other State listed species have not been documented on the Refuge at this time.

Impacts on Public Use - The Refuge would not increase opportunities for public use activities such as hunting, fishing, wildlife observation, and environmental education. Winters Creek Lake would continue to be open for fishing during the current public-use season. Public use facilities would remain essentially the same except for maintenance. Without facility upgrades, a visitor center, and the implementation of outreach programs, public use is expected to remain at approximately 4,500 visitors annually.

Impacts on Air and Water Quality - This alternative would have no impact on air quality. Automobile traffic through the Refuge would not be at levels that could result in measurable air pollution. Water quality would not be affected by this alternative.

Impacts on Cultural Resources - Cultural resources would have no additional protection under current management. No interpretation of the Horse Creek Treaty or other relevant historical events would be conducted.

Impacts on Socio-economic Resources - Under this alternative, the Refuge would not have any new programs or facilities to encourage more visitors to the area and would not generate additional revenue to the community. Refuge grasslands would continue to be grazed using cattle producers from the community.

Staffing and funding levels for the Refuge under this alternative would also remain unchanged. Expansion of staff and increased efforts to expand the Refuge infrastructure would not occur. The multiplier effect of these changes through the economy would, therefore, also not occur.

Proposed Management Alternative

The selection of this alternative was based on an analysis of its environmental consequences, the requirement to manage for the Refuge's enabling legislated purpose of native birds and the desire to improve both environmental education opportunities and visitor services.

- Expand biological monitoring efforts to document diversity, populations trends, response to management actions, and public use impacts.
- Continue control of invading and exotic species.
- Expand opportunities for wildlife/wildland observation, environmental education, and interpretation.
- Seek funds to construct a new environmental education/visitor center.
- Implement a limited hunting program.
- Secure and quantify the Federal reserve water right for the benefit of wildlife, including an improved fisheries.
- Expand the public use season and reduce the number of acres closed to public access.
- Continue current cooperative agreements and partnerships and seek additional ones such as new environmental education/visitor center, new hunting program and adjoining private lands habitat improvement projects, conservation easements and/or acquisitions.

Consequences of Implementing the Proposed Management Alternative

Impacts on Wildlife and Habitat - This alternative offers a planned long-term approach for the active management of the Refuge wildlife populations, habitats, and public use opportunities. It involves the expansion of existing efforts for habitat restoration and enhancement; primarily in the area of censusing and monitoring of the biological response. Active management will primarily involve providing food, sanctuary, and water needs to meet the Refuge wildlife population objectives. This alternative includes the following management strategies that will benefit native birds; reseeding disturbed uplands to native grasses, the use of prescribed fire and grazing to invigorate grasslands, and the control of invasive species. A secured water right, once quantified, would be managed for the direct benefit of native birds. Such may also benefit an improved fisheries.

Land trades or acquisitions from the public domain and/or willing sellers that this alternative recommends will not only assist administratively through straightened boundaries but will benefit wildlife through expanded, protected wildlife habitat.

Impacts on Endangered and Threatened Species - Under this alternative, listed species would be provided added protection through increased inventories and monitoring. The Service will actively pursue opportunities to strengthen or improve partnerships and cooperative efforts with other agencies and individuals to improve habitat protection for listed species. Also under this alternative, systematic biological surveys and inventories of the Refuge resources would identify threatened and endangered species using the Refuge. Management actions could then be implemented to protect them and enhance their habitats.

Impacts on Public Use - The Refuge would increase opportunities for public use activities such as hunting, fishing, wildlife observation, and environmental education. The public use season would be liberalized, acreage at Lake Alice currently closed to the public year-round would be opened seasonally to non-motorized access, a limited hunting season would be considered, and visitor facilities would be enhanced to include a visitor center.

Impacts on Air and Water Quality - Anticipated increases in automobile traffic to the Refuge as a result of this alternative would not measurably increase air pollution levels. Any expansion of fishing opportunities that may arise from a Federal reserve water right for the Refuge would continue to prohibit gas-powered boating. Water quality would not be impacted by this alternative.

Impacts on Cultural Resources - The Refuge would interpret the Horse Creek Treaty from Stateline Island and other relevant historical events. In partnership with Reclamation, a general survey of cultural resources of the Refuge would be conducted.

Impacts on Socio-economic Resources - Improved and expanded visitor services and facilities would encourage more public use opportunities and more visitors. The potential for increased tourism in the area would generate revenue for the local economy. This alternative would increase Refuge expenditures on infrastructure providing opportunity for local contractors and vendors and thus add to the local economy. This alternative adds a significant number of new work activities. To address this need, the Refuge Complex will have to add staff. Salary increases for Refuge staff add to the overall local economy.

IV. Cumulative Impacts and Mitigation

Cumulative impacts include impacts on the environment which result from incremental effects of the proposed action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Implementing the Proposed Action would reduce the potential for cumulative impacts because of the strategic approach to managing Refuge programs including wildlife-dependent public uses and the consideration of resource conflicts and opportunities within a broad management framework. This would be a change from the fragmented issue/problem oriented approach inherent in the No Action.

Where site development activities are to be proposed during the next 5 to 10 years, each activity would be given appropriate NEPA consideration. At that time, any required mitigation activities would be designed into the specific project to protect fish and wildlife and their habitats and to reduce the level of impacts to the environment.

Mitigation measures are necessary when effects determined through the NEPA process are anticipated to significantly impact wildlife, habitats, or the human environment. The management activities proposed in the Proposed Alternative are not intended to produce environmental impacts at significant levels to warrant mitigation measures. However, the activities listed below will help reduce the risks that any negative effect will occur. Long-term monitoring will help in determining actual effects and how the Service should respond.

- ✓ The Refuge would closely regulate proposed activities to lessen any potential impacts to plant and wildlife species particularly during sensitive periods such as breeding and nesting seasons.
- ✓ Public use would be restricted by season or specific areas would be closed to minimize disturbance.
- ✓ The Refuge would prohibit any activities in areas where endangered species would be negatively effected.

Appendix K. Mailing List

Federal Officials

- U.S. Senator Chuck Hagel
Mary Crawford, Ag Director, Scottsbluff, NE
- U.S. Senator Bob Kerrey
Mary Asmus, Scottsbluff, NE
- U.S. Representative Bill Barrett
Esther Benson, Scottsbluff, NE

Federal Agencies

- USDA/Natural Resources Conservation Service, Chuck Schmitt, Kearney, NE
- USDI/Bureau of Reclamation, John Lawson, Mills WY
- USDI/NPS, Scotts Bluff Nat'l Monument, Gering, NE
- US EPA, Denver, CO
- USFWS, Albuquerque, NM; Alamosa/Monte Vista NWR, CO; Anchorage, AK; Arapaho NWR, CO; Arlington, VA; Arrowwood NWR, ND; Atlanta, GA; Denver, CO; Fort Snelling, MN; Hadley, MA; Juneau, AK; Air Quality Branch, Lakewood, CO; Ecological Services Field Office, Grand Island, NE; Flint Hills, KS; Medicine Lake NWR, MT; Portland, OR; Sacramento, CA; Sherwood, OR; Sand Lake NWR, SD; Seedskaadee NWR, WY; Shepherdstown, WV; Tewaukon NWR, ND; Waubay NWR, SD
- USGS, BRD, Rick Schroeder, Fort Collins, CO

State Officials

- Governor Mike Johanns, Lincoln, NE
- Senator Adrian Smith, Gering, NE
- Senator Bob Wickersham, Harrison, NE

State Agencies

- Ritch Nelson, NGPC-Alliance, NE
- Jim Zimmerman, NGPC-Gering, NE
- Scott Brandt, NGPC-Scottsbluff, NE
- Jack Peterson, NGPC-Alliance, NE
- Dan Thorton, NGPC-Minatare, NE
- Steve Kemper, NGPC-Chadron, NE
- Penny Businga, ESU #13, Scottsbluff, NE
- Captain Jim Rogers, NE State Patrol, Scottsbluff, NE

Local Agencies

- Sheriff Jim Lawson, Gering, NE
- Scotts Bluff County Commissioners, Gering, NE

Organizations/Business/Civic Groups

- National Audubon Society, Ms. Gretchen Muller, Washington, D.C.
- Audubon Nebraska, Dave Sands, Lincoln, NE
- Wildcat Audubon Society, Alice Kenitz, Gering, NE
- Western Nebraska Sportsmen Association, Darrell Fox
- Scottsbluff-Gering United Chamber of Commerce, Karen Anderson
- Nebraska Chapter TWS, Bill Vodehnal, Bassett, NE
- North Platte Valley Water Coalition, Ron Moore
- Farmers Irrigation Dist, Kevin Adams, Scottsbluff, NE
- Pathfinder Irrigation Dist, Dennis Strauch, Mitchell, NE
- North Platte Valley Boat Club, Clarence Bohlander, Minatare, NE
- National Wildlife Refuge Assoc, Colorado Springs, CO
- TWS-Central Mountain & Plains Section, Fort Collins, CO
- Wildlife Management Institute, Washington, D.C. and Pratt, KS
- KRA Corporation, F&W Reference Section, Bethesda, MD
- Defenders of Wildlife, Washington, D.C.
- The Wilderness Society, Washington, D.C.
- Animal Protection Institute, Sacramento, CA
- Illinois Dept of Natural Resources, Springfield, IL

Libraries

- Scottsbluff Public Library
- Gering Public Library

Media

- Star-Herald, Scottsbluff, NE
- Gering Courier, Gering, NE
- The Business Farmer, Scottsbluff, NE
- Mitchell Index, Mitchell, NE
- KNEB Radio, Scottsbluff, NE
- KMOR/KOAQ/KOLT Radio, Scottsbluff, NE
- Omaha World Herald, Omaha, NE
- KDUH TV, Scottsbluff, NE
- KSTF TV, Gering, NE

Universities & Colleges

- UNL, Panhandle Research & Extension Center, Scottsbluff, NE
- Professor Paul Friesema, Northwestern U, Evanston, IL

Individuals

Ray Boice
Britt Bowen
Kelly Bowen
Lee Buffington
Byron Peterson
Mike Pickinpough
Jim & Jean Roebuck
Bruce Rolls
Ed Scott
Dale Staman
Donald Stubby
David & Cathy Wehrly
Leslie Wondercheck

Appendix L. List of Preparers

This document is a compilation of efforts by Brad McKinney (Refuge Manager) and Steve Knode (Project Leader). Dale Henry (ResPro Consulting) provided leadership with formulating goals and objectives and producing the written document in the approved format. Others involved in the process included: John Esperance (Realty) - Team Leader; Donna Vicars-Benjamin (Planning) produced the maps, Beverly Boecher (Educational and Visitor Services) produced the cover, and Barbara Shupe (Planning) completed edits and document layout.

Appendix M. Section 7

Intra-Service Section 7 Consultation has been initiated with the Grand Island Field Office and will be completed prior to final approval of this Plan.

North Platte National Wildlife Refuge
115 Railway Street, Suite C109
P.O. Box 1346
Scottsbluff, NE 69363-1346
308/635 7851
r6rw_crl@fws.gov

U. S. Fish and Wildlife Service
<http://www.fws.gov>
<http://www.r6.fws.gov/larp>

For Refuge Information
1 800/344 WILD

December 2000



