

Valentine

National Wildlife Refuge



***Comprehensive
Conservation Plan***

Valentine National Wildlife Refuge

Comprehensive Conservation Plan

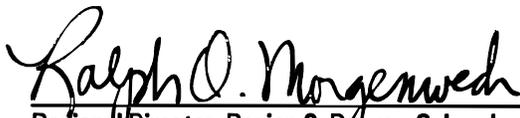
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Date:

9/30/99

**Valentine National Wildlife Refuge
Comprehensive Conservation Plan Approval
U.S. Fish and Wildlife Service, Region 6**

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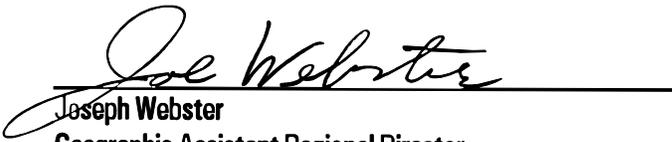
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Summary

The 71,516-acre Valentine National Wildlife Refuge is located in the Sandhills of north-central Nebraska. The Refuge is a unique and ecologically important component of the National Wildlife Refuge System (System) which includes over 500 refuges totaling approximately 93 million acres across the United States. The native grass prairie and wetlands found here support a diversity of wildlife. Little has changed from historic times. The Refuge was established by Congress in 1935 “as a breeding ground for migratory birds and other wildlife.” The Refuge is home to 270 species of birds, 59 species of mammals, and 22 species of reptiles and amphibians. Several threatened and endangered plants, birds, and one insect are found here. The 180-acre Holt Creek and 480-acre Yellowthroat Wildlife Management Areas in Keya Paha and Brown Counties are also included in this Plan.

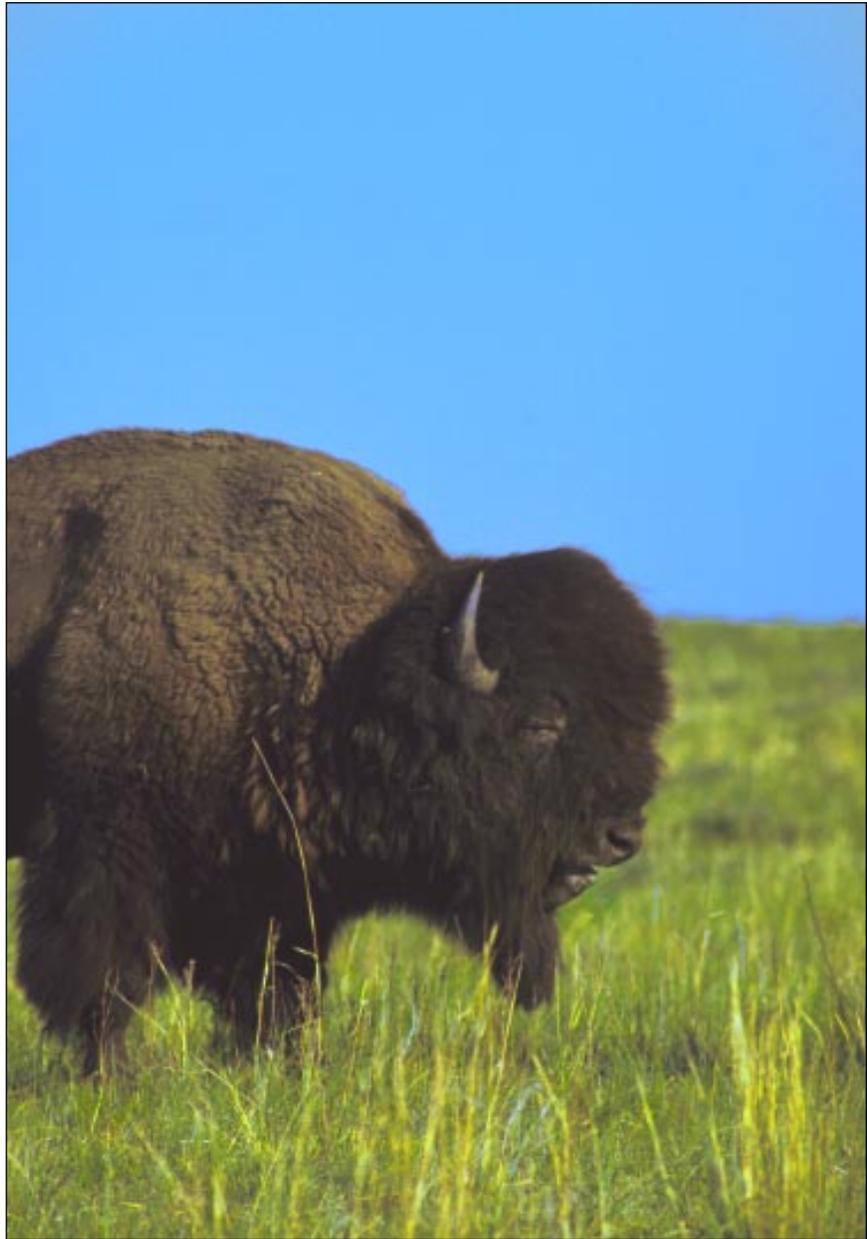
This Comprehensive Conservation Plan (Plan) was prepared for the Refuge and its Wildlife Management Areas to guide their management for the next 10 to 15 year period. It is an updated and revised version of a Draft Comprehensive Conservation Plan and Environmental Assessment completed earlier this year. It has been written to provide continuity of management of Refuge lands for the benefit of wildlife and people.

All efforts leading to the preparation of this Plan were undertaken to provide the Refuge with a vision for the future, guidelines for wildlife and habitat management over the next 15 years to ensure progress is made toward attaining the mission and goals of Valentine NWR and the Refuge System, and to comply with Congressional mandates stated in the National Wildlife Refuge System Improvement Act of 1997. The planning effort provided opportunities for interested people, Federal and State agencies, State and local governments, and private organizations to give input on future management of the Refuge. This Plan provides clear goals and objectives for management of Refuge habitats, wildlife, threatened and endangered species, cultural and paleontological resources, other compatible public uses, and partnerships, along with implementation strategies, and recommended staffing and funding for these areas. This Plan also meets the planning requirements of the National Wildlife Refuge Improvement Act enacted by Congress in 1997.

The Draft Plan considered four alternatives for management of Valentine NWR. Each of the alternatives was evaluated for environmental consequences in accordance with the National Environmental Policy Act (NEPA). The Plan, in its present form, contains the goals, objectives, and strategies found by the Service to best aid the Refuge and the National Wildlife Refuge System (System) to attain their specific goals.

For a summary of the alternatives considered during the planning process see Appendix H. Further information on alternatives considered can be found in the Valentine National Wildlife Refuge Draft Comprehensive Conservation Plan and Environmental Assessment (U.S. Fish and Wildlife Service, 1999).

Several of the alternatives for management of Valentine National Wildlife Refuge call for the return of bison to Refuge grasslands; Native grasses growing on Refuge meadows provide excellent nesting habitat for ducks, prairie chickens, and birds which prefer tall dense cover; The endangered plant, blowout penstemon, grows in the sandy dunes where wind erosion creates areas of open sand; Money from the sale of Duck Stamps was used to purchase most of the lands that now make up Valentine National Wildlife Refuge; in April prairie chicken males display on traditional breeding grounds throughout the Refuge.





Introduction / Background

Refuge Overview: History of Refuge Establishment, Acquisition and Management

Valentine National Wildlife Refuge History

Valentine NWR was established on August 14, 1935, by Executive Order No. 7142 “as a breeding ground for migratory birds and other wildlife.” Lands for the Refuge were purchased from private ranches, recreational land, resort clubs, and corporations with investment interests. Funding for acquisition came from the Emergency Conservation Fund of 1933. The dust bowl period of the 1930’s created concern among conservationists for the survival of waterfowl species. Many refuges were set-aside during this period to help in meeting the goals of the Migratory Bird Treaty Act of 1918. Since the 1940’s, additional lands have been purchased and traded to straighten Refuge boundaries and improve Refuge administration. In 1992, the Fort Niobrara-Valentine National Wildlife Refuge Complex acquired the Yellowthroat Wildlife Management Area, a 920-acre fee title/easement area in Brown County, and in 1995, the 180-acre fee title Holt Creek Wildlife Management Area in Keya Paha County through the U.S. Department of Agriculture (USDA), Farmers Home Administration, under provisions of the 1990 Farm Bill.

A Civilian Conservation Corps (CCC) Camp of 200 enrollees was established on Valentine NWR in 1935 and was operational until 1939. The CCC enrollees constructed fences, roads, buildings, fire towers, planted trees and shrubs, developed ponds and water control structures, and built a diversion ditch from Gordon Creek. Nebraska Game and Parks Commission (NG&PC) acquired a water right for the Gordon Creek Diversion. In the early 1980’s, this water right was relinquished for lack of use and also because it was not in the best interest of the Refuge. Surface water management has been facilitated by subsequent construction of seven water control structures and records of lake elevations are available since the 1950’s.

The Refuge was opened to fishing when water returned to the lakes following the drought of the 1930’s. The Refuge was opened for the following hunting seasons: deer in 1964, pheasant and grouse in 1965, waterfowl in 1977, dove in 1983, and coyotes in 1986.

From 1935 through 1972, Valentine NWR was managed by an on-site refuge manager in charge of only Valentine NWR. In 1973, the Refuge was joined with Fort Niobrara NWR to form a Complex with one manager in charge.

The Refuge has two Research Natural Areas closed to public entry, a 15,809-acre proposed wilderness area designated in 1973 and located in the southwest part of the Refuge, and was recognized as a Registered National Landmark in 1979.

Wetland Management History

Thirty-seven major wetland areas exist on Valentine NWR comprised of approximately 13,000 acres of semipermanent and permanent wetlands which historically have operated as a closed system except for periods of high precipitation. Historic data regarding surface and groundwater elevations are available for the Refuge; however, the most consistent data records available are since 1985.

Since establishment of the Refuge, various attempts have been made to manage the water elevations of six lakes by water control structures. However, water elevations are dependent upon precipitation. Since 1981, above average annual precipitation has complicated attempts of managing lake elevations beyond diminishing the adverse effects of the extremely high wetland levels experienced since the mid-1980's (See Table 1).

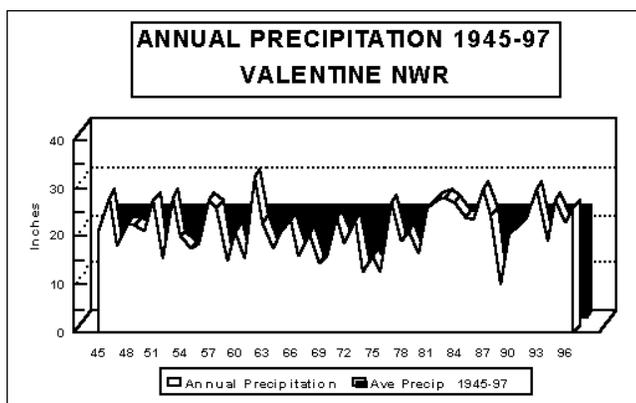


Table 1

Approximately 40 U.S. Geological Survey (USGS) wells have been established on and adjacent to the Refuge in which groundwater elevations have been monitored by Refuge staff since the 1950's. This information is part of the monitoring program carried out by USGS Water Resources Division. Groundwater elevations are presently 4-7 feet above the elevations recorded during the period 1950 to 1985.

Gordon Creek Diversion History

In the 1930's, the CCC's constructed a diversion on Gordon Creek to divert water through the Refuge. Considerable resources were allocated to the construction of the diversion dam and ditch to Hackberry Lake. However, the project was "piecemealed" beyond Hackberry Lake through the remainder of the Refuge (Dewey, Clear, and Willow Lakes) and north through Trout and Big Alkali Lakes via Slagel Creek and east through Ballard Marsh and Red Deer Lake via East Plum Creek.

In 1952, a District Court Decree (Young, Harse and Harms vs State of Nebraska) successfully challenged the construction of a larger water control structure on Willow Lake by Nebraska Game and Parks Commission (Commission); set a maximum elevation that water could be held in Willow Lake; and the defendants were "*permanently restrained and enjoined from causing or permitting any interference ... and from by any act or in any manner causing or contributing to causing the water in the natural water course below and to the north of the outlet of Willow Lake to flow in any different manner or at any different time or season of the year than in the manner and at times and seasons in which they are wont to flow.*" In 1997, the Willow Lake water control structure washed out and the Commission has elected not to replace the structure and to allow water levels in Willow Lake to fluctuate naturally.

The water right for the Gordon Creek diversion was acquired by the Commission, but the water right was relinquished in the early 1980's because it was not of benefit to the management of the Refuge. This diversion was the original source of carp infestation for the Refuge. Wetland management subsequent to the construction of the diversion has focused on controlling carp populations and the adverse effects of carp on habitat and food resources of waterfowl and sport fish. Over the years, water control structures were constructed and reconstructed in an attempt to prevent the movement of carp. However, by the 1940's, carp had spread throughout the wetlands in the northwest area of the Refuge as well as the downstream wetlands under the management of the Commission and private landowners. Various attempts to control carp with chemical treatment were carried out in the 1950's and 1960's to control carp populations on the Refuge. The most effective control technique was initiated in 1975 and, during the period 1975-82, seven lakes were mechanically pumped and chemically treated with rotenone to reduce the carp populations. To date, only two of the renovated lakes have remained carp-free. However, in the remaining five lakes, carp populations have remained at moderate levels with the implementation of biological control. Biological control was accomplished by modifying northern pike size limits to enhance the populations of larger northern pike and subsequently reduce carp recruitment.

Wildlife Management History

Wildlife populations have been affected by both the management of wetland and grassland resources on Valentine NWR. Grazing practices increased as a result of increased demand for beef during World War II and remained in excess of 50,000 AUMs until the mid-1960's. Indigenous wildlife species with specific habitat requirements (which are not achieved under the widespread grazing/mowing regimes of that time) did not fare very well. By the mid-1950's, considerable criticism was leveled against the management of the Refuge both from within and outside the Service. In the early 1970's, a grassland management team was formed to develop recommendations regarding the management of Refuge grasslands. Wildlife populations, for which monitoring data are available, have responded positively to the spirit and intent of these recommendations; specifically, the enhancement of native Sandhill Prairie through the termination of widespread, season-long grazing, annual mowing practices, and the implementation of planned grassland management treatments (See Table 2). These provide optimum acreage of vegetative composition, structure, and undisturbed nesting cover for wildlife.

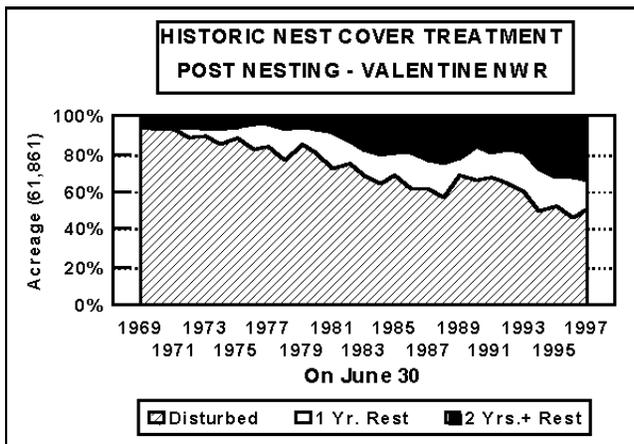
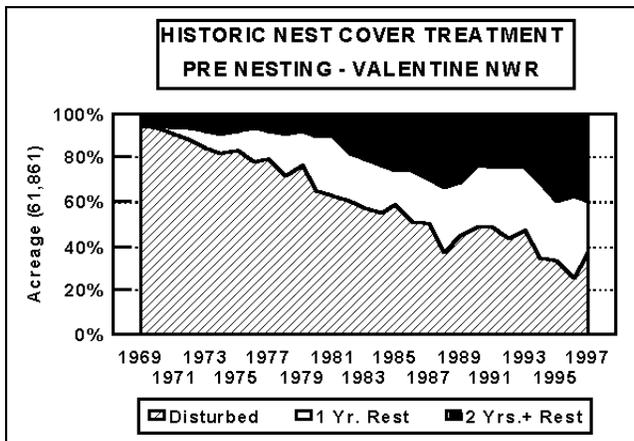


Table 2.

Waterfowl

The annual acreage of undisturbed cover for upland nesting birds increased from less than 5 percent in 1969 to greater than 50 percent by 1985 (See Table 3). The increase in undisturbed nesting cover acreage has resulted in greater productivity and population levels particularly for upland nesting waterfowl. Specifically, a significant improvement has occurred in the hatching chronology of blue-winged teal and mallards with the increased acreage of undisturbed cover. The earlier hatching peaks since 1978 have ultimately resulted in greater recruitment rates (See Table 4) and subsequently greater breeding populations and composition of dabbling ducks. In particular, mallard breeding pairs have increased dramatically with the increased acreage of cover that received rest treatment for two or more growing seasons, and this increase occurred during a period of extremely low continental duck breeding populations.

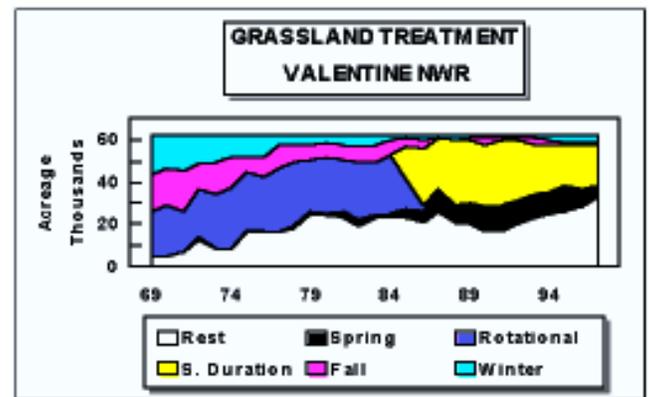


Table 3.

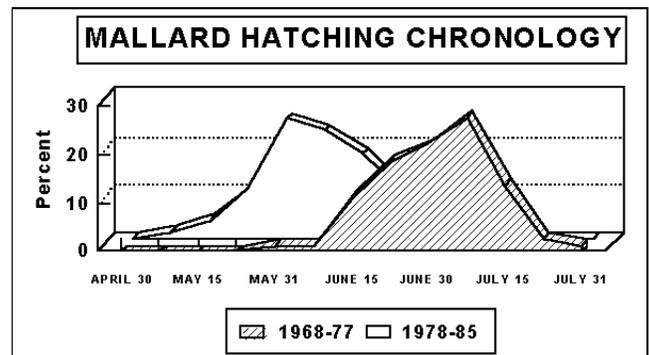
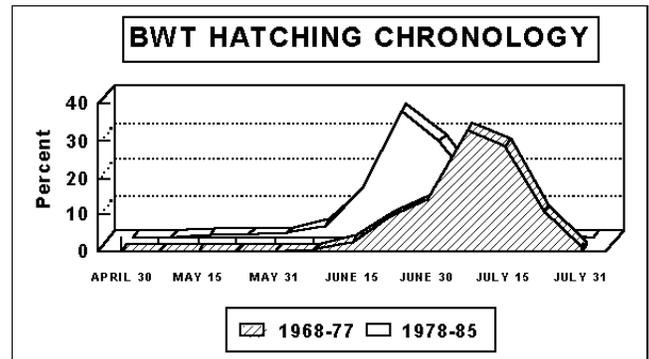


Table 4.

Native Birds and Other Wildlife

Management of native birds and other wildlife has varied in intensity over the years with the greatest impact indirectly or directly due to habitat management practices. Prairie grouse, a term used to describe sharp-tailed grouse and greater prairie chicken, were once plentiful on the Great Plains, but by the late 1800's, demand for birds in eastern markets, development of efficient railway shipping, and willingness of individuals to exploit a seemingly unlimited resource, combined to dramatically reduce prairie grouse populations. Extirpated in many parts of their ranges, remnant populations of sharp-tailed grouse and prairie chicken populations survived in the Sandhills of Nebraska due to lack of intensive agriculture- altered habitat (Mitchell et al. 1984).

Prairie grouse were identified in one of the first quarterly reports of the Refuge as native birds for management consideration and emphasis. Over the years, management decisions and actions have addressed prairie grouse needs to varying degrees. Researchers believe that habitat conditions (structure, species composition) which are correlated to use (grazing, haying) has determined the average population size, but other factors (i.e., weather) operated equally in good and poor habitat to cause similar rates of annual gallinaceous birds population changes. Annual counts of displaying sharp-tailed grouse and prairie chicken males support that relationship or effect. Prairie grouse numbers have cycled with higher average population levels occurring on the Refuge when forage availability was higher. Statistical analysis indicates that a significant inverse relationship exists between the level of AUM utilization and the breeding population of prairie chickens on Valentine NWR (See Table 5).

Additionally, Hughes and McDaniel (unpublished 1998) developed linear regression models for the Refuge to determine relationships between cover treatment and the number of male prairie chickens surveyed during the period 1969-1996. The best fit model indicated an inverse significant relationship between the percentage of disturbed cover throughout the year prior to the breeding population survey period; indicating the importance of undisturbed cover for prairie chickens throughout the year for nesting, brood rearing, and winter survival.

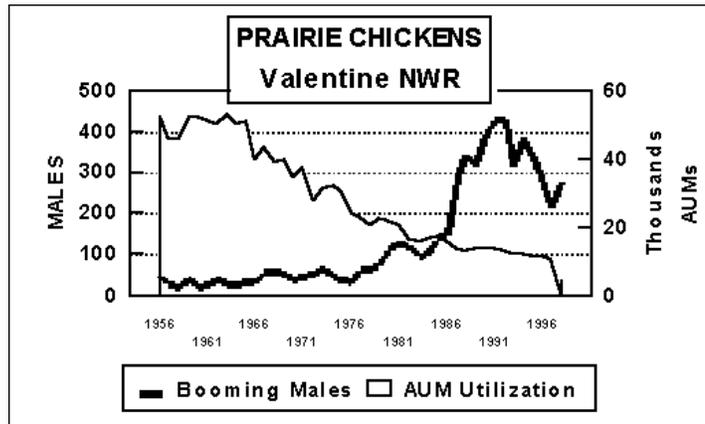


Table 5.

The greater prairie chicken is an “indicator species” of the health and vigor of native grasslands and is a reflection of the management of native grasslands. In the 1930's, 21 refuges existed with breeding populations of greater prairie chickens and, by 1963, the only remaining breeding populations existed on Ft. Niobrara-Valentine NWRs. Since the 1980's, a considerable effort has been put forth within the Ft. Niobrara-Valentine NWR Complex to increase the health, vigor, and residual cover amounts of native grasslands for upland nesting birds by controlling the timing of grazing and rest treatments.

Pronghorn antelope were historically common on the open prairies of the Sandhills through the late 1800's; however, by 1908, they were on the decline and observed only in the western and northern portions of Nebraska. The Service has never attempted to reintroduce pronghorn antelope to this Refuge. Coyote predation is the primary factor influencing the survival of pronghorn on the Refuge.

Other wildlife have undoubtedly benefitted from the enhancement of Sandhill Prairie; however, specific surveys have not been carried out to document changes in the numerous species present on Valentine NWR.

Grassland Management History

Livestock grazing has occurred on Valentine NWR since establishment. However, the level of grazing dramatically increased during the early 1950's, and by the early 1960's, annual grazing use exceeded 50,000 animal unit months (AUM). Virtually the entire Refuge grassland acreage was grazed or hayed. The two Natural Research Areas, totaling 1,381 acres, were not grazed. This level of grazing had a negative impact on wildlife and vegetation on the Refuge.

In 1971, a grassland management study team was formed to look into the situation and recommend appropriate corrective actions. The major management recommendations of the team were:

- P Zone all meadows based on their value for nesting waterfowl.
- P Stop annual mowing of meadows.
- P Improve native plant vigor and composition by prescribed burning, mowing, and grazing with alternating periods of rest.
- P Maintain nesting cover by providing 40- to 100-acre undisturbed blocks for three to eight years.
- P Hold units in reserve through normal attrition of permittees to allow for flexible and intensive manipulation.
- P Initiate restoration of native vegetation on priority meadows beginning in 1972.
- P Develop small food plots (i.e., weed patches) to promote greater diversity and abundance of wildlife species.
- P Stop season-long grazing and promote restoration and maintenance of range condition by use of rest, fall-deferment, deferred-rotation, and rest-rotation systems.
- P Establish wilderness area; remove grazing facilities and possibly employ summer grazing.
- P Initiate adequate monitoring techniques to evaluate qualitative and quantitative changes in vegetation and response by wildlife.

Recommendations of the team have generally been implemented except that the Wilderness proposal has not received Congressional approval; mowing has been reduced by approximately 85 percent; and maintaining cover in undisturbed condition, for periods of three to eight years, has annually involved less than 20 percent of the total grassland acreage of Valentine NWR.

In 1986, rotational grazing was phased out and short-duration grazing initiated. Use allowed by permittees was retained, but as permittees dropped out of the program, they were not replaced. Between 1986 and 1997, permittees went from 13 to 9 and use from approximately 9,000 to 6,000 AUMs.

Public Use History

Since the Refuge's establishment, public use has been mostly limited to recreational opportunities centered around wildlife/wildlands observation and education, as well as hunting and fishing.

Current Refuge Resources Management

Grassland Management

Cattle grazing, rest, and prescribed fire are used to manage grasslands on the Refuge. The 61,861 acres of grassland on the Refuge are divided into 327 habitat units by barbed wire and electric fences. Of this acreage, 48,755 is in hills and 13,106 in meadows. Plans are made each year to either graze, rest, or prescribe burn grasslands on the Refuge.

In 1997, 34,789 acres (56 percent) of Refuge grasslands were rested. Rested grasslands are those that are not grazed by cattle or burned by prescribed fire. Refuge studies have documented that rested grasslands are preferred nesting cover for waterfowl and grouse. Grassland management is designed to maximize undisturbed cover. Undisturbed cover is grassland that is not grazed, burned by either wild or prescribed fire, or effected by hail for the preceding year's growing season and the current year's nesting season. In 1997, 56 percent of the Refuge grasslands were in undisturbed cover through June 30.

In 1997, a total of 388 acres (less than 1 percent) of grassland in seven habitat units were burned using prescribed fire. Prescribed fire is used to invigorate native grasses, reduce cedar trees in grasslands, and control invader grasses such as brome and Kentucky bluegrass. Prescribed fires are planned and conducted by a fire crew from the Fort Niobrara/Valentine NWR Complex. Wildfires on the Refuge are aggressively suppressed by the same fire crew and local fire departments under cooperative agreements.

Nine permittees held annual permits to graze approximately 6,600 animal use months (AUMs) over the period April 1, 1997, through March 30, 1998. The permittees have held permits for many years and all own land either adjacent to or near the Refuge. Refuge staff plans a grazing program for each permittee to maintain and improve the condition of Refuge grassland for wildlife. Grazing permittees are charged at market rate for use. Improvements and repairs to wells, fences, tanks, and other facilities needed for the program are paid for by the permittees, and the cost deducted from their final bill. In 1997, \$26,759 was spent on improvements and deducted from final billings. Deductions are also made from billings for frequent moves of cattle and grazing treatments that differ from normal ranching practices. In 1997, \$46,203 was collected and deposited in the Refuge Revenue Sharing Account.

The methods and expected results for the different grazing strategies used are explained below.

Spring grazing treatment is done before the end of May on sub-irrigated meadow sites. The cattle are in the unit for more than two weeks. Cattle eat or trample most of the residual cover. They also over graze and thus reduce undesirable cool season exotic grasses (Kentucky bluegrass and smooth brome). Meadows hayed are also sometimes given this treatment to add fertilizer. Dramatic results occur with this treatment. Exotic cool season grasses are suppressed and native warm seasons (switchgrass and others) increase in vigor and density. The disadvantage is the loss of the unit for nesting in the year of treatment and a lower waterfowl nesting density in the following year. Often the unit can, however, be rested for up to five years following treatment. In 1997, 30 habitat units totaling 6,099 acres (9 percent of grassland) received a spring grazing treatment and included some areas that were later hayed.

Spring short-duration grazing is grazing a unit for less than two weeks during May. Generally the cattle are in the unit for only 3 to 5 days. This type of grazing is limited to hill units to stimulate growth of grasses, especially cool seasons. The short exposure times eliminate overgrazing. In 1997, ten habitat units totaling 3,280 acres (5 percent of grassland) had spring short-duration grazing treatments. Where possible, units grazed later in summer the previous year are grazed using this treatment. This both varies treatment and reduces disturbance to nesting cover. Most units grazed with spring short-duration grazing show excellent growth of native vegetation by fall.

Short-duration summer grazing is done from June 1 through September 1. Cattle are in a unit for less than two weeks. Most units are grazed only 3 to 5 days and the cattle moved onto the next unit. Electric fences are used to break up larger units and increase stock density. Most short-duration summer grazing is completed by mid-July. In 1997, 79 habitat units totaling 19,723 acres (32 percent of grassland) were short-duration summer grazed. Units grazed by this method show good growth by fall if adequate moisture is received. If little or no late summer rainfall is received, regrowth is less, especially in those units grazed in late July or August.

Summer grazing is done from June 1 through September 1, and cattle are in the unit for two weeks or longer. In 1997, no acres were summer grazed. If done, this is in larger units that have not been cross fenced.

Fall grazing is done from September through November. Fall grazing can reduce mulch accumulations and add fertilization. If done at the proper time, cattle will also graze out small wetlands dominated by prairie cordgrass and leave the surrounding upland vegetation alone. Generally the wetlands have green vegetation in them while the uplands have only cured grasses. Grazing in the wetlands recycles nutrients and provides pair habitat for ducks in the spring. Most units that are fall grazed are then given a spring grazing treatment the following year. In 1997, six habitat units totaling 1,446 acres (2 percent of grassland) were fall grazed.

Winter grazing is done from November through April. In winter grazing, cattle are fed hay on a feed ground in a unit. The hay comes from the Refuge. Winter feeding creates dense weed patches for several years following the treatment. These weed patches provide winter food for deer, pheasants, and other resident wildlife. Units with a history of winter grazing combined with feeding also have excellent growth of vegetation. Resident wildlife also use waste grain from the feeding operation. In 1997, three habitat units totaling 1,167 acres (2 percent of grassland) were winter grazed.

Haying was done on 714 acres (1 percent of grassland) of sand, sub-irrigated, and wetland range sites and yielded 1,520 tons of hay in 1997. Haying is done on a share-basis with three permittees receiving 60 percent and the Refuge receiving 40 percent of the hay harvested. Some hay is also put up on a contract with the cost deducted from permittees grazing bills. Most of the meadows hayed are also grazed either in the fall or spring. This adds fertilization to the meadows and improves the quality and quantity of hay produced. Haying is used to provide browse areas for Canada geese, prairie grouse, and deer, and for winter feed for the Texas Longhorn herd at Fort Niobrara NWR. In some years, part of the Refuge share of hay is used for road repair and maintenance. This was not done in 1997.

Wetlands Management

Most of the lakes, marshes, and wetlands on the Refuge are natural and have no structures for water level management. Drainage ditches put in before the area was a Refuge can still be found in several locations. These ditches are only active in high-water periods and are generally not effective in draining the Refuge wetlands.

Several of the nine lakes open to sport fishing have dikes and structures that offer limited water management capabilities. On four lakes, water levels are generally held at a level higher than the natural level to reduce the possibility of a winter-kill of sport fish. In normal water years, the Refuge staff releases water from these lakes at such a time as to not impact downstream landowners' haying operations. In recent high-water years, water has run continuously from these lakes. These lakes also have fish barriers to keep the carp from migrating between lakes and infesting new waters. The lakes open to sport fishing were pumped and treated with rotenone to kill the carp between 1975 and 1982. Following treatment, they were restocked with sport fish and have been managed as sport fisheries. Sport fish are stocked frequently, and on occasion, moved between lakes.

Threatened and Endangered Species Management

Threatened and endangered species recorded on the Refuge are blowout penstemon, western prairie fringed orchid, American burying beetle, bald eagle, whooping crane, and least tern. Managing and maintaining prairie habitat by using rest, fire, and grazing will benefit these species.

Surveys for blowout penstemon have been conducted on the Refuge and only several naturally occurring plants found each year. Nine areas of blowout penstemon have been transplanted onto the Refuge during the past three years under a University of Nebraska cooperative program. About 2,000 seedlings per year were raised and transplanted in suitable habitat during 1996 to 1998.

Western prairie fringed orchids are surveyed in July when in bloom. They grow in some areas mowed for hay. In these areas, the plants are marked with stakes so they are not cut. Areas where the orchids grow are not grazed during the flowering season. The Service assists the Task Force for Population Habitat Viability Analysis for the orchid.

American burying beetles have been documented on the Refuge.

Bald eagles are common winter residents on the Refuge. Whooping cranes, and least terns are only rarely seen. No special management is conducted. Occasionally, in the past, areas of the Refuge were closed to the public when whooping cranes were present on Refuge meadows. This closure is repeated when whooping cranes use the Refuge during migration.

Indigenous Wildlife Management

Wildlife diversity, with the exception of large ungulates and their predators, is relatively unchanged in the Nebraska Sandhills as compared to most areas of the United States. Moreover, since the 1980's, the ecological integrity of Sandhill Prairie on Valentine NWR has been enhanced by planned treatments of grazing, prescribed fire, and rest. These planned treatments have resulted in a tremendous improvement in the vigor and composition of native vegetation, natural aesthetics, and simultaneously provided greater amounts of residual vegetation for indigenous grassland wildlife than is available throughout the remainder of the 19,000 square miles of the Nebraska Sandhills.

Long-term monitoring of key indicator species has documented that waterfowl (particularly mallard) and prairie grouse (particularly prairie chicken) populations have benefitted from the greater amounts of residual and/or undisturbed vegetative cover. In fact, the Fort Niobrara and Valentine NWR's are the only Refuges that have retained historic populations of greater prairie chickens in the System; and in both cases, these populations have increased since the mid-1980's.

Positive effects on other indigenous wildlife species that require greater amounts of vegetative cover undoubtedly exist; however, specific documentation is not available for Valentine NWR.

The Service conducts very limited trapping of mammalian predators and snakes on a nesting island in the Marsh Lakes to benefit nesting waterfowl. The Refuge has a trapping plan targeted to predator control and muskrat disease outbreaks. No trapping by the public took place on the Refuge in 1997.

Exotic and Invading Species Management

Exotic and invading plant species are controlled through an integrated pest management approach. Prescribed fire, rest, and grazing are the main tools used for controlling exotic and invading plants to maintain healthy prairies. Spring grazing treatments are especially effective in reducing Kentucky bluegrass, the most widespread invader on the Refuge. Spring grazing treatments and fire are also being used to reduce smooth brome grass. Fire is also used to remove cedar trees invading native prairies. The acreage for these treatments are listed under the grassland section.

Leafy spurge is present in several locations covering less than ten acres. Insect releases for biological control have been made in some patches of spurge and several patches have been sprayed with herbicide. Canada thistle is also present in small amounts in meadows and along the edges of wetlands. High water has reduced the range of this plant on the Refuge. Insect releases for its control have also been made.

Reed canary grass and Russian olive are present in small areas but have not been treated.

Proposed Wilderness Area

Habitat management in the proposed wilderness area is accomplished with grazing as described previously in the Grassland Management section. Improvements include windmills and tanks, barbed and electric wire fences. These improvements are maintained by permittees, Refuge staff, and a contractor with the use of the current tools of less habitat impact (motorized vehicles - primarily pickup trucks and small ATVs). Permittees use horses, pick-up trucks, and ATVs to move livestock within the area being proposed as wilderness. No roads or trails are maintained. Old trail roads are becoming less obvious or disappearing altogether as use, especially by pickup trucks is declining. Some haying operations, with the use of mechanized equipment, take place in the proposed wilderness area.

Wildfires occurring in the proposed wilderness area are extinguished using fire engines. No prescribed fires have been effectuated in the area. Refuge staff use pickup and small ATVs on occasion to access the area for biological surveys, search and rescue, and maintenance. Currently, no known infestations of noxious weeds occur in the proposed wilderness area; thus, no control activities have been conducted.

Current public use of the proposed wilderness area is mainly for hunting and by a small number of hikers. Access is by foot or horseback. No use of motor vehicles is permitted for hunting or game retrieval activities. Hunters use wheeled carts to transport deer out of the area. None of the lakes in the proposed wilderness area are open to fishing.

Public Use

Valentine NWR has no accurate counts of the Refuge's visitors; thus, the quality of information on public use on the Refuge is poor. For calendar year 1997, visitations to Valentine NWR were estimated at 9,500 visits with approximately 90 percent made up of anglers. Fishing visits were lower in 1997 due to poor ice conditions during the winter fishing season. The remaining 10 percent of visitors were mostly hunters. Increasing numbers of people are visiting Valentine NWR for the purpose of bird and other wildlife observation.

News releases on Refuge events are written and distributed to area television and radio stations, as well as to newspaper outlets. The Fort Niobrara/Valentine NWR Complex also hosts special events including the Nebraska Federal Junior Duck Stamp Contest, a kids fishing day, a steel shot clinic, and a nature fest. Currently, some requests for tours and educational programs are denied due to staffing shortages.

Valentine NWR is outfitted with three information kiosks at major entry points to the Refuge. The kiosks have general information on the Refuge, a map, information on management of grasslands for wildlife, and leaflet dispensers.

Blinds for observing prairie grouse displays are set up in the spring and receive plenty of use. People come to the Refuge to birdwatch and enjoy the prairie. No counts are made for this type of visitation, but Refuge staff believe that it may be increasing.

Hunting: Waterfowl hunting is permitted only in the Watts, Rice, and Duck Lakes areas of the Refuge according to the State's seasons and limits. No counts were made, but it is estimated that about 75 visits were made by duck hunters.

The Refuge is open to hunting of sharp-tailed grouse and prairie chickens during the State set season that runs from mid-September through December. The Refuge is a popular place for out-of-state, as well as Nebraska, hunters to pursue prairie grouse. Grouse hunters are surveyed via wing collection boxes placed around the Refuge. In 1997, 258 hunter days were recorded through the collection boxes. However, not all hunters participate in the voluntary collection program.

The Refuge is also open to pheasant hunting during the State set season that runs from the first weekend of November through the end of January. Pheasant hunters made an estimated 100 visits to the Refuge in 1997. This is a large number of hunters considering that bird numbers remain very low.

The Refuge is open to deer hunting during the Nebraska rifle deer season in November. Most of the deer hunting takes place on opening weekend. In 1997, a total of 88 deer were harvested including both white-tailed and mule deer. These figures come from deer checked by Refuge law enforcement officers and records obtained at Nebraska Game and Parks check stations. The Refuge probably receives the heaviest hunting pressure of any location within the State hunting units. A higher quality hunt is possible if opening day is avoided.

The Refuge is also open for muzzle loader deer hunting. The season runs for two weeks in December. Hunting pressure is light and only seven muzzle loader hunters were known to hunt on Valentine NWR in 1997. This form of hunting is, however, becoming more popular. Permits are unlimited and statewide; either sex.

The Refuge is also open to archery deer hunting which runs from mid-September through the end of December. Only a few hunters were known to have visited the Refuge to archery hunt in 1997.

Coyotes can be hunted on the Refuge from December 1 through March 15. A free permit is required and can be obtained in person or by mail. The permit is a postcard that the hunter returns at the end of the season and includes harvest information. For the 1996-1997 season, 37 permits were issued.

Fishing: Nine Refuge lakes (Watts, Rice, Duck, West Long, Pelican, Hackberry, Dewey, Clear, and Willow) are open to fishing year round. Fishing, especially ice fishing, accounts for most visits to Valentine NWR. An estimated 7,900 visits were made for fishing in 1997. This figure is based on very limited counts of anglers throughout the year. In 1997, ice was on the lakes for fewer days than average resulting in lower visits for ice fishing. In some heavy use years, up to 17,000 anglers have been counted.

Bass, perch, bluegill, muskie, saugeye, and northern pike are present in the fishing lakes. Size limits are in effect to protect larger pike needed for carp control, and minnows are prohibited on Refuge lakes to prevent introduction of exotic fish. Gas powered boats are not allowed. Catch-and-release for bass and muskie is in effect on Watts Lake. The Refuge lakes are most noted for large bass, catch-and-release northern pike fishing, and large bluegills. Many Master Angler (trophy) fish are caught each year.

The Fort Niobrara/Valentine NWR Complex has one seasonal and four collateral duty law enforcement officers.

Cultural and Paleontological Resources

Limited cultural resource studies have been conducted by the U.S. Fish and Wildlife Service (Service), or any other groups to locate and describe and evaluate cultural and paleontological resources (Burgett and Nickel 1999). Current protection and interpretation of cultural and paleontological resources is minimal as well.

Monitoring

The Refuge has one full-time biologist who conducts biological monitoring on the Refuge with occasional assistance from other staff. The main emphasis is on grassland monitoring. Grassland transects are run each year to evaluate cover, composition, and grassland health. More than 100 photo points are taken to document long-term changes to the grassland. Techniques and information are shared with the Forest Service.

Refuge staff completes segments of statewide surveys in cooperation with the Nebraska Game and Parks Commission including sandhill crane, goose, waterfowl, turkey, deer, wintering eagle, pheasant brood, grouse brood, and prairie grouse breeding and productivity.

The Refuge staff maintains a weather station in cooperation with the National Weather Service at Hackberry Lake. Refuge staff read and report on U.S. Geological Survey groundwater wells at more than 30 locations on the Refuge. Both these efforts have been conducted for 60 years and yields long-term trend information. Surface water levels are also recorded for some Refuge lakes.

Surveys for sharp-tailed grouse and prairie chicken are performed and used as an indicator of grassland health. In the spring, lek counts are conducted; in the fall, wing collection boxes are maintained. Part of the lek count is a State count block and this information is passed on to the Nebraska Game and Parks Commission. Wing collection from hunters is done in cooperation with the Forest Service and the Nebraska Game and Parks Commission.

Pair and brood counts for waterfowl are done on the Marsh Lakes to assess waterfowl production. Nesting success of ducks is monitored on an island in the Marsh Lakes as part of a long-term study. Colonial and marsh nesting birds are also counted in some areas of the Refuge. Monitoring for avian botulism is conducted in late summer on Refuge lakes and wetlands. An annual count of muskrat houses is done.

Fishery surveys using electrofishing, gill, and trap nets are done on Refuge lakes open to fishing on a regular basis by USFWS Fisheries Assistance Office biologists.

Surveys of the threatened western prairie fringed orchid and endangered blowout penstemon are conducted. When orchids are found they are marked to prevent mowing them during haying operations.

Purpose of and Need for a Comprehensive Conservation Plan

The Service has recognized the need for strategic planning for all the components of its System. The System now has more than 513 refuges totaling approximately 93 million acres. Valentine NWR, located in north-central Nebraska (see Figure 1), is a unique and ecologically important component of the System. In September 1996, Executive Order 12996 was enacted which gave the System guidance on issues of compatibility and public uses of its land. Congress passed the National Wildlife Refuge System Improvement Act in October 1997. This “organic act,” for the first time in the System’s history, required that Comprehensive Conservation Plans be prepared for all refuges within 15 years.

The Service was an active participant in this historic legislation and supported the planning requirement. The planning effort helped this Refuge (and thus the entire System) meet the changing needs of wildlife species and the public. The planning effort provided the opportunity to meet with Refuge neighbors, and customers, and other agencies to ensure that this Plan was relevant and truly addressed natural resource issues and public interests. It is the Service’s goal to have the System be an active and vital part of the United States’ conservation efforts. This Plan explains the planning process, the Refuge’s characteristics, and the direction management will take in the next 15 years. It is provided to give the reader a clear understanding of the purposes of the Refuge and how the Service will manage it over the next 15 years to attain the stated purpose of the Refuge.

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 fish, wildlife, and plant populations and their habitats. The first unit of the 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, over 500 national wildlife refuges located in the 50 States and a number of U.S. Territories exist. Today, the System encompasses more than 93 million acres.

This System provides important habitat for many native mammals, birds, reptiles, amphibians, fishes, invertebrates, and plants; “trust resources” for which the Federal government is ultimately responsible. The System plays a vital role in preserving endangered and threatened species, and offers a wide variety of wildlife-dependent public uses; annually, national wildlife refuges receive 34 million visitors.

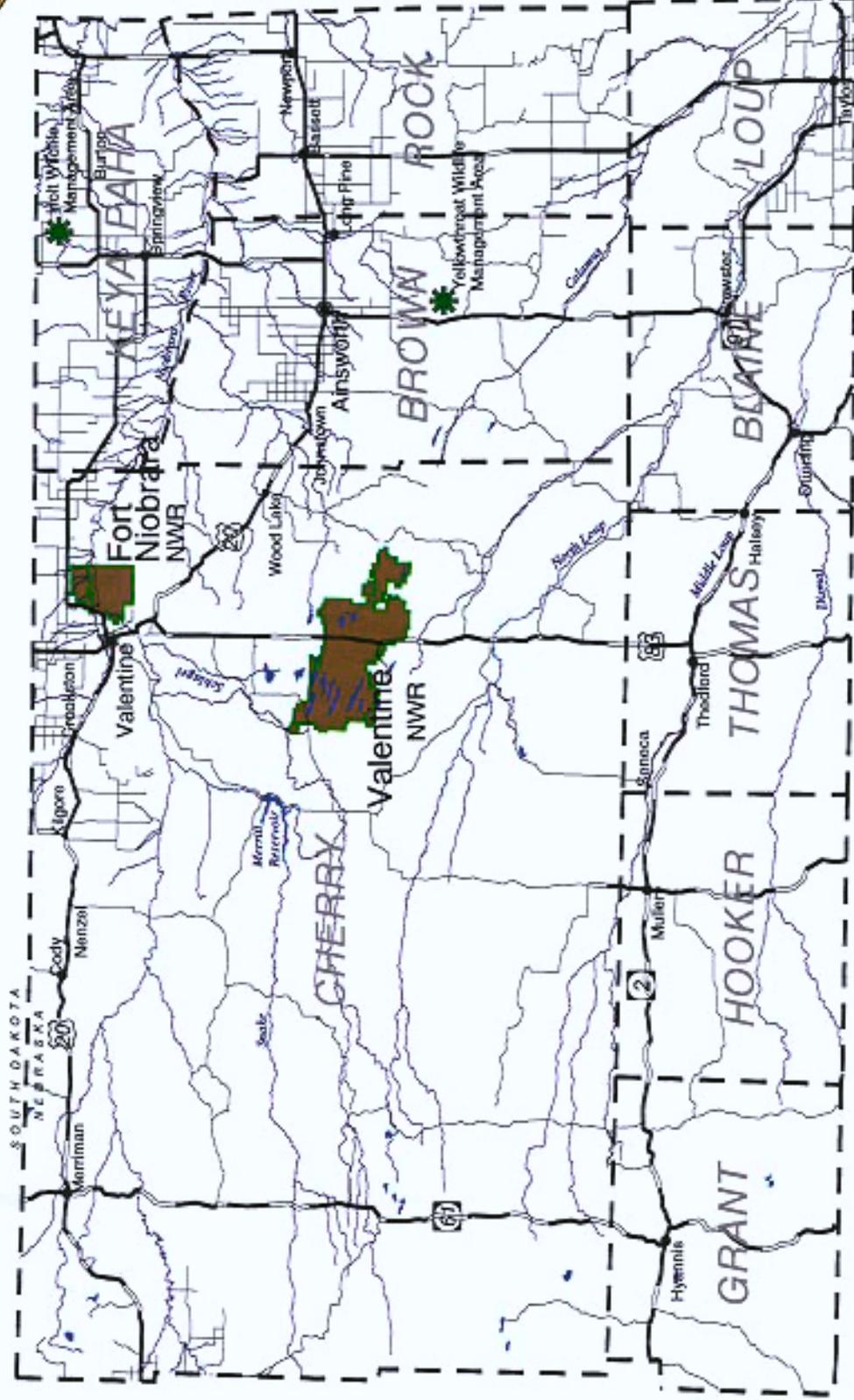
However, the System’s importance goes far beyond these services. It contributes directly and indirectly to human welfare through a number of ecosystem services and functions. Chapter IV contains a detailed discussion of ecosystem services. For the entire biosphere, the estimated annual economic value of all the world’s ecosystem services and functions is about \$33 trillion (Constanza, *et al.* 1997).

The Mission of this System is “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). The goals of the System are aimed at fulfilling this mission and are the following:

- Goal 1: To preserve, restore, and enhance in their natural ecosystems all species of animals and plants that are endangered or threatened with becoming endangered;*
- Goal 2: To perpetuate the migratory bird resource;*
- Goal 3: To preserve a natural diversity and abundance of fauna and flora on refuge lands; and*
- Goal 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.*



Vicinity Map of North Central Nebraska



MAP LOCATION



State of Nebraska



Figure 1: Vicinity Map

National wildlife refuges are acquired under a variety of legislative acts and administrative orders and authorities. These orders and authorities usually have one or more purposes for which land can be transferred or acquired. Many refuges within the System provide breeding, migration, or wintering habitats for federally listed species. Nearly all refuges also supply habitats for big game species and resident or nonmigratory wildlife as well.

Individual refuges provide specific requirements for the preservation of trust resources. For example, waterfowl breeding refuges in South and North Dakota provide important wetland and grassland habitats to support populations of waterfowl as required by the Migratory Bird Treaty Act and the North American Waterfowl Management Plan. Valentine NWR also supports breeding populations as well as providing migration habitat during spring and fall periods. Sabine NWR and other refuges in Louisiana and Texas provide wintering habitat for these populations. The network of lands is critical to these birds survival. Any deficiency in one location will affect the species and the entire networks ability to maintain adequate populations.

Other refuges may provide habitat for threatened and endangered plants or animals that exist in unique habitats which occur in only very few locations. Refuges in these situations ensure that populations are protected and habitat is suitable for their use. Refuges, by providing a broad network of lands throughout the United States, help to prevent species from being listed by providing secure habitat for their use and provide recovery habitats in portions or all of a species range.

The National Wildlife Refuge System Improvement Act of 1997 amends the Refuge Administration Act's Section 4(A) with the following additions:

- P* "each refuge shall be managed to fulfill the mission of the System, as well as the specific purposes for which that refuge was established;
- P* compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System, directly related to the mission of the System and the purposes of many refuges, and which generally fosters refuge management and through which the American public can develop an appreciation for fish and wildlife;
- P* compatible wildlife-dependent recreational uses are the priority general public uses of the System and shall receive priority consideration in refuge planning and management; and
- P* when the Secretary determines that a proposed wildlife-dependent recreational use is a compatible use within a refuge, that activity should be facilitated, subject to such restrictions or regulations as may be necessary, reasonable, and appropriate.

- (4) *In administering the System, the Secretary shall—*
- P* provide for the conservation of fish, wildlife, and plants, and their habitats within the System;
- P* ensure that the biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans;
- P* plan and direct the continued growth of the System in a manner that is best designed to accomplish the mission of the System, to contribute to the conservation of the ecosystems of the United States, to complement efforts of States and other Federal agencies to conserve fish and wildlife and their habitats, and to increase support for the System and participation from conservation partners and the public;
- P* ensure that the mission of the System described in paragraph (2) and the purposes of each refuge are carried out, except that if a conflict exists between the purposes of a refuge and the mission of the System, the conflict shall be resolved in a manner that first protects the purposes of the refuge, and, to the extent practicable, that also achieves the mission of the System;
- P* ensure effective coordination, interaction, and cooperation with owners of land adjoining refuges and the fish and wildlife agency of the States in which the units of the System are located;
- P* assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the System and the purposes of each refuge;
- P* acquire, under State law, water rights that are needed for refuge purposes;
- P* recognize compatible wildlife-dependent recreational uses as the priority general public uses of the System through which the American public can develop an appreciation for fish and wildlife;
- P* ensure that opportunities are provided within the System for compatible wildlife-dependent recreational uses;
- P* ensure that priority general public uses of the System receive enhanced consideration over other general public uses in planning and management within the System;
- P* provide increased opportunities for families to experience compatible wildlife-dependent recreation, particularly opportunities for parents and their children to safely engage in traditional outdoor activities, such as fishing and hunting;
- P* continue, consistent with existing laws and interagency agreements, authorized or permitted uses of units of the System by other Federal agencies, including those necessary to facilitate military preparedness;"

The National Wildlife Refuge System Improvement Act of 1997 further defines the wildlife-dependent recreational uses as: wildlife observation and photography, environmental education and interpretation, and fishing and hunting.

Fish and Wildlife Service Mission

The mission of the Service is 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. The National Wildlife Refuge System is one of those entities.

Valentine National Wildlife Refuge Purpose

Valentine NWR was established by Executive Order No. 7142, August 14, 1935, “. . . reserved and set apart . . . as a refuge and breeding ground for migratory birds and other wildlife.”

Valentine National Wildlife Refuge Vision Statement

Valentine NWR will strive to preserve, restore, and enhance the ecological integrity of Nebraska Sandhill uplands and associated wetlands as habitat for migratory birds and other indigenous wildlife for the benefit of present and future generations of Americans.

Valentine NWR habitat management goals will seek to maintain a healthy Refuge environment that will provide opportunities for visitors to enjoy wildlife-dependent uses of the Refuge in a natural setting. Interpreting a unique habitat, wildlife and the Refuge's historical heritage, as well as improving facilities will enhance the visitor's experience while protecting the cultural integrity of the area. To meet these challenges, the Service will seek partnerships with other agencies, interest groups, landowners, and local communities. These efforts will result in greater protection of wildlife, fish and plant resources throughout north-central Nebraska.

Legal and Policy Guidance

National Wildlife Refuges are guided by the mission and goals of the National Wildlife Refuge System (System), the designated purpose of the Refuge unit as described in the establishing legislation and/or executive orders, Service laws and policy, and international treaties (for a complete list see Appendix G).

Key concepts included in laws, regulations, and policies that guide management of the System include primary versus multiple-use public lands, compatibility, and priority wildlife-dependent recreational activities. Examples of relevant guidance include the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997, the Refuge Recreation Act of 1962 (50 CFR), Executive Order 12996 (Management and General Public Use of the National Wildlife Refuge System), and selected portions of the Code of Federal Regulations and Fish and Wildlife Service Manual.

The National Wildlife Refuge System Administration Act of 1966, as amended, provided guidelines and directives for administration and management of all areas in the System, including wildlife refuges, areas for the protection and conservation of fish and wildlife threatened with extinction, wildlife ranges, game ranges, wildlife management areas, or waterfowl production areas. Use of any area within the 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 System, a new formal process for determining compatible uses on refuges, and a requirement that each refuge will be managed under a Comprehensive Conservation Plan (CCP or Plan). This Act states that wildlife conservation is the priority of the System lands and that the Secretary of the Interior (Secretary) shall ensure that the biological integrity, diversity, and environmental health of refuge lands are maintained. Each refuge must be managed to fulfill the mission of the System and the specific purposes for which it was established. Additionally, this Act identifies and establishes the legitimacy and appropriateness of the six wildlife-dependent recreational uses. These are hunting, fishing, wildlife observation and photography, environmental education and interpretation. As priority public uses of the System, they uses will receive enhanced consideration over other uses in planning and management. Furthermore, this Act requires that a CCP be in place for each refuge by the year 2012 and that the public have an opportunity for active involvement in plan development and revision. It is Service policy that CCPs are developed in an open public process and that the agency is committed to securing public input throughout the process. This Act amended portions of the Refuge Recreation Act and National Wildlife Refuge System Administration Act of 1966.

Lands within the System are different from other, multiple-use 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 (e.g., national forests administered by the U.S. Forest Service and public lands administered by the U.S. Bureau of Land Management), the System is managed specifically for the benefit of fish, wildlife, and plant resources and their habitats. Compatible wildlife-dependent recreation is a legitimate and appropriate general public use of the System.

Executive Order 12996 (March 23, 1996) identified a new mission statement for the System; established six priority public uses (hunting, fishing, wildlife observation and photography, environmental education and interpretation); emphasized conservation and enhancement of the quality and diversity of fish and wildlife habitat; stressed the importance of partnerships with Federal and State agencies, Tribes, organizations, industry, and the general public; mandated public involvement in decisions on the acquisition and management of refuges; and required identification, prior to acquisition of new refuge lands, of existing compatible wildlife-dependent uses that would be permitted to continue on an interim basis pending completion of comprehensive planning.

Compatible wildlife-dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation are priority public uses of the System. These uses must receive enhanced consideration over other public uses in refuge planning and management.

Before any uses, including wildlife-dependent recreational activities, are allowed on national wildlife refuges, Federal law requires that they 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 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. If financial resources are not available to design, operate, and maintain an activity, the refuge manager will take reasonable steps to obtain outside assistance from the State and other conservation interests. No refuge use may be allowed unless it is determined to be compatible.

The Service has completed compatibility determinations for Valentine NWR (see Appendix E). All six priority wildlife-dependent recreational activities—wildlife observation, wildlife photography, environmental interpretation, environmental education, hunting and fishing—were determined to be compatible and thus will continue to be allowed and encouraged in this Refuge, with the exception of certain designated areas.

The Refuge Recreation Act, as amended, authorized the Secretary to administer refuges, hatcheries, and other conservation areas for recreational use when such uses did not interfere with the area’s primary purpose.

Existing Partnerships

The Refuge works with organizations and individuals in a variety of areas but mostly in monitoring. Cooperative efforts in monitoring are listed in the next section. Fort Niobrara/Valentine NWR Complex staff works with the following groups: with private landowners through the Partners in Wildlife Program; with the Natural Resource Conservation Service in the Wetland Reserve Program; with Farmers Service Agency in the easement program; with Cherry County Extension in educational programs; with local law enforcement; with the Niobrara Council on wild and scenic river management; State, Federal, and local agricultural agencies in weed control; U.S. Forest Service; and U.S. Geological Survey.

The Refuge has formal agreements with rural fire protection districts to suppress wildfires both on and off the Refuge. Biologists from four universities regularly study reptile physiology at the Refuge. The Refuge plans grazing for, maintains the fence on, and patrols the Willow Lake Game Management Area adjacent to the Refuge. The Service works with Nebraska Game and Parks in fish stocking, fish egg collection and law enforcement. The Refuge staff works with the eight Refuge grazing permittees to manage grasslands on the Refuge using cattle.

Planning Process

Description of the Planning Process

The development of this CCP was guided, in the beginning, by the Refuge Planning Chapter of the Fish and Wildlife Service Manual (Part 602 FW2.1, November 1996) and later also by the Service's Draft Comprehensive Conservation Planning Policy. Key steps included: (1) preplanning; (2) identifying issues and developing a vision; (3) gathering information; (4) analyzing resource relationships; (5) developing alternatives and assessing their environmental effects; (6) identifying a preferred alternative; (7) publishing the Draft Plan and soliciting public comments on the Draft Plan (the comment period for input from the public spanned for a total of 105 days); (8) review of comments and effecting necessary and appropriate changes to the Draft CCP; and, (9) preparation of the final Plan for approval by the Region 6 Regional Director, and finally (10) implementation of the Plan.

Valentine NWR is located 20 miles south of Valentine, Nebraska, along Highway 83 (see Figure 1). The Refuge is administered as part of the Fort Niobrara-Valentine NWR Complex with the main office located five miles east of the city of Valentine. The Hackberry Headquarters on Valentine NWR is located along State Spur 16B.

Comprehensive conservation planning efforts for Valentine NWR began in January 1997 with a meeting of regional management and planning staff and field station employees at Fort Niobrara NWR. At that meeting, a core planning team was designated with the major responsibilities of gathering information and writing the Draft Plan. A review team was set up to provide guidance and direction to the core planning team. A working group was also organized to provide interchange of information between Service personnel, outside agencies, and interested stakeholders of the Refuge.

On March 20, 1997, an open house scoping session was held in the Cherry County Hall meeting room, Valentine, Nebraska. The open house provided participants an opportunity to learn about the Refuge's purposes, mission, and goals, and issues currently facing management. People attending were provided the opportunity to speak with Service representatives and to share their comments, issues, and concerns.

The working group and the Service's management and planning staff participated in a two-day tour of the Fort Niobrara NWR and Valentine NWR Complex in April 1997. The tour gave participants an opportunity to view the habitats, the fenced animal management and the prominent wildlife species of these Refuges, discuss management aspects of these Refuges, and give planning staff ideas for consideration in the planning process.

During the planning process, the review and working groups had access to information on objectives and alternatives that were considered. Since then and throughout the planning process, written comments have been exchanged and verbal conversations have been held among members of these groups and other stakeholders of this Refuge. The Draft CCP/EA was the first opportunity that these groups and the public have had to review the entire planning effort and the Plan.

The Draft Plan (and Environmental Assessment) was released on the last week of April 1999 and distributed in the first week of May 1999. A 60-day comment period was provided in which the Service requested information, comments, concerns, suggestions and complaints from the public regarding the Draft CCP/EA. Because of the tremendous amount of public interest in this Plan, the Service extended the comment period for 45 more days, for a total of 105 days of public comment period. With this extension, the public comment period did not close until August 19, 1999.

The voluminous amount of comment letters and electronic mail communications were reviewed and summarized by category and subject. After reading and compiling all the comments received, the review team prepared a meeting to brief the Regional Director and Assistant Regional Director of the Service's Region 6, the Programmatic and Southern Ecosystems Assistant Regional Directors, the Refuge Supervisor for Valentine NWR, the Chief of the Branch of Land Acquisition and Refuge Planning, and the Regional Wildlife Biologist. The summary of the comments received was reviewed at this meeting and appropriate modifications were made to the Draft CCP/EA in accordance with scientifically based new information provided during the comment period and the goals and objectives of the Refuge. The present Plan contains the changes made by the Service in accordance to the recommendations of the directorate and Service biologists and managers. All the actions undertaken in the preparation of this Plan satisfy the requirements under the National Environmental Policy Act of 1969.

This Plan will guide the management on the Refuge for the next 15 years. Plans are ultimately signed by the Regional Director, Region 6, thus providing Regional direction to the station project leader. A copy of this Plan will be provided to all those interested. The project leader of the station will review the Plan every five years to decide if it needs revision.

Planning Issues

Issues, concerns, and opportunities were identified through discussions with planning team members and key contacts and through the public scoping process, which began with an open house scoping session in March 1997. Comments were received orally at the meetings, via e-mail messages and in writing, both before and during the scoping and the public comment period phases of the comprehensive conservation planning process. The following issues, concerns, and comments are a compilation and summary of the those expressed by the public, other Federal and State agencies, local and county governments, private organizations and individuals, environmental groups and persons concerned for the natural resources of the Valentine NWR. This section also contains information developed by the Service throughout the planning process on the same issues.

The Draft CCP/EA for Valentine NWR had proposed to reintroduce into the Refuge an important ecological factor currently missing from the Sandhills habitats. The Service believes that the historical grassland management setting and species that contributed to that setting were important. The U.S. Fish and Wildlife Service is focused on preserving wildlife species and wildlands and strongly believes in maintaining ecological relationships. A major herbivore, the bison, is missing from Valentine NWR. Although bison have been as close as the Fort Niobrara NWR, the Service has substituted domestic cattle throughout the years in an attempt to achieve the overall habitat objective of the Refuge. It is believed that this was an appropriate time to begin to phase into this change and return the species and, with that, put a major species back into the ecological setting of the proposed Wilderness Area of the Refuge.

Another ecological force, fire, is also believed to be important. Obviously, concerns with the safety of this tool exist. Recent increases in the Service's funding for prescribed fire and increased ability to use the tool safely, make it an appropriate time to expand the use of this tool and expand the benefit it provides to grassland ecology.

The Service will use an adaptive management strategy to implement this Plan. The primary focus will be to achieve the habitat objectives defined for migratory birds and other wildlife with domestic cattle and prescribed fires being the most significant habitat management tools.

Other aspects of the Plan are similar to the current management regime of the Refuge. These programs are largely successful, well received by the public, and no reasons exist to change them significantly. Some additional discussion on this issue is found in the Environmental Assessment in Appendix H.

Bison Reintroduction

The Refuge's Draft CCP/EA (U.S. Fish and Wildlife Service, 1999) had proposed the introduction of bison into sections of the area of the Refuge being considered for designation as wilderness. The purposes of this introduction would have been: a) to return the most important large ungulate of the western plains to part of its former range and b) to utilize bison as a grazing "tool" to manage grassland habitats on this sector of the Refuge. The bison would come preferably from excess stock at Fort Niobrara NWR. The habitat is currently manipulated by domestic cattle from neighboring landowners who have a Special Use Permit from the Service.

Many people were concerned, for various reasons, about the Service's proposal to reintroduce this historic and important herbivore, that once roamed freely through the western plains, to a portion of the area under consideration for designation as a wilderness area. Many other commentators, however, met this proposal with approval and encouraged the Service to pursue this introduction.

After considering the many comments received on this issue, the Service has decided to modify how and where the bison will roam on Valentine NWR. The Service will reintroduce bison, preferably surplus bison from Fort Niobrara NWR, only to that area of Valentine NWR that is proposed as a Wilderness Area and only as funding becomes available (i.e., partnerships, grants, cooperative agreements, appropriations, etc.) to support the infrastructure costs and management of this reintroduction. Bison is one option, along with permittee grazing, that the Service could use to manage habitat in the proposed Wilderness Area. The Service will monitor and evaluate the affects of bison on this area to ensure that bison contribute to the goals and objectives of the Refuge.

Loss of Permittees' Privileges and Possible Adverse Impact to the Sandhills Habitat:

Many of the comments opposing the reintroduction of bison into Valentine NWR came from neighboring landowners holding permits to graze the area where bison could have been reintroduced. Reintroduction of this large ungulate would have resulted in the loss of these special permits for these ranchers and, consequently, a modification of their ranching practices and the income they derive from it. This was also a source of concern for the local city and county governments as they could have also seen their revenue decrease accordingly.

Other concerns expressed by commentators regarding the Service's proposed bison reintroduction hinged on the possibility that free-roaming bison could not be handled as readily as domestic cattle to care for Sandhills habitats to attain the stated goals of this Plan (both for habitat and, consequently, species dependent on it such as the federally listed western prairie fringed orchid and blowout penstemon, and bird species, such as prairie chickens). Free-roaming ungulates would change the current grazing pattern of high-impact, short-duration to year-long grazing.

As a result of public comment and additional consideration of the various alternatives, the Service will continue to use domestic cattle as an effective tool to maintain and improve habitat for wildlife. The Service has developed and maintained a very effective habitat program for wildlife with the cooperation and participation of the current permittees. This will remain. The Service will continue to use the services of the current permittees subject to Service policy. The Service will not discontinue the Special Use Permits of the current permittees after ten years. Rather, Special Use Permits with current permittees to achieve certain grazing prescriptions will continue. Domestic cattle will be utilized as the major grazing tool to achieve the overall habitat objectives for wildlife on Refuge grasslands.

Economic Considerations of the Proposed Reintroduction of Bison: Some commentators expressed reservations about the proposed reintroduction of bison due to negative economic implications. Many commentators found the cost of reintroduction and management of bison in Valentine to be unjustified given the fact that habitat management using domestic cattle is already in place, has demonstrated to be practical and successful, and continuation of this practice would not incur further expenses for the Refuge, and ultimately, for the taxpayer. As stated in the Planning Issues Section of this document, the Service believed that the historic grassland management setting and species that contributed to that setting were important. The U.S. Fish and Wildlife Service is focused on preserving wildlife species and wildlands and strongly believes in maintaining interrelationship of organisms and their environment. A major herbivore, the bison, is missing from Valentine NWR. Bison and permittee cattle can be used to manage the health and vigor of the Refuge grasslands.

Finally, other economic concerns expressed by some commentators (mostly from landowners neighboring the Refuge) was the possibility of bison roaming outside of the Refuge and damaging private property and the possible infection of their cattle with brucellosis from bison reintroduced to adjacent Valentine NWR lands. This concern with brucellosis infecting domestic cattle is unfounded given the fact that the bison for the proposed reintroduction would have come from excess animals at Fort Niobrara NWR, or another Service owned herd, which are constantly monitored and vaccinated, and are certified to be free of brucellosis.

Genetic Diversity and Pool Preservation: Some commentators expressed their belief that it was totally unnecessary to reintroduce bison into Valentine NWR for the sake of having more bison present and protected within Federal lands given the fact that many herds of bison already exist not only under Federal jurisdiction but on private property as well. Nevertheless, it is important for the Service to point out that, according to several researchers and geneticists (some of which provided the Service with written comments and scientific information in support for bison reintroduction into Valentine NWR) it would be good to expand the Fort Niobrara NWR bison herd, possibly into Valentine NWR or other Federal lands because of the unique and genetically pure bison herd at Fort Niobrara NWR. Genetically pure bison is of tremendous importance to the continued existence and survival of this species, one of symbols of our Nation. Some geneticists that have performed research on bison herds would like to see the Fort Niobrara NWR bison herd extend into other sites to prevent a possible catastrophic epizootic event. Thus, the proposed reintroduction into Valentine NWR will serve the purpose of enlarging the nationwide population of true bison, with all the characteristics that have allowed this wild ungulate to survive in the wild in the harsh environment of the American West.

Human Safety: A few other commentators expressed concern over the proposed reintroduction of bison from the standpoint of safety for hikers, hunters, anglers, bird watchers, and other visitors to the proposed wilderness area of the Refuge where the bison had been proposed for reintroduction. The problem, according to these commentators, would have been that some areas would not have been readily available to outdoor recreation as once were if the bison were introduced into the Refuge. However, visitors to the Refuge can enjoy a safe wildlife-dependent recreation experience on the Refuge. The proposed Wilderness Area on the Refuge will be the only area inhabited by bison, which leave approximately 56,000 acres of the Refuge without bison. Bison will provide an important wilderness experience for those that choose to recreate in this portion of the Refuge. Appropriate safety messages, educational efforts and perhaps at times, temporary closure of certain areas of the Wilderness Area will be part of the bison management program.

Black-Tailed Prairie Dog Introduction

Prairie Dogs and The Sandhills Habitat: Many commentators, most of which appeared to be adjacent landowners to the Refuge and cattlemen expressed vigorous opposition to the Service's proposal to introduce this species into the habitats of the Refuge classifying this animal as a pest that damages the habitat, whose burrows represent a hazard to domestic cattle and horses, and who are potential threats to human health. Some also pointed out that the Sandhills are not adequate habitat for this species, otherwise the animal would already be present there.

However, prairie dogs are an integral part of many grassland ecosystems in the western states of our Nation. Many other animal species, some listed as endangered, other deemed species of special concern (i.e., black-footed ferrets, bald eagles, burrowing owls, mountain plovers, swift foxes), and migratory birds (i.e., raptors) are either inextricably dependent on or make common use of prairie dog colonies to obtain basic food, shelter and/or habitat for nesting and rearing of their young. Valentine NWR, which was set-aside by Congress as a reservation for migratory birds and other wildlife, is located well within the historical range of this species even though considerable controversy exists as to whether this species ever inhabited the Sandhills region and whether it could survive in this area. Given the purpose for establishing this Refuge, prairie dog colonies would enhance the diversity of habitats used by local and migratory avifauna, which would in turn be in compliance with the stated purpose of the Refuge, and aid in the preservation efforts of federally listed species dependent on prairie dogs and the habitats they help shape.

The Service is interested in creating a diverse mosaic of habitats in the System that are conducive to a wide range of indigenous and migratory wildlife, especially bird species. An important component of the western plains that is currently missing from this Refuge are black-tailed prairie dogs. As noted earlier in this Plan, this species is responsible for the creation of a unique habitat that is not only conducive but essential to certain migratory birds, but to a variety of mammals and reptiles as well. The Service had proposed to allow this species gather and grow into a colony encompassing approximately 400 acres within suitable habitat in the Refuge. However, the Service decided to postpone the implementation of this habitat management strategy until sufficient research and studies have performed and the data studied to determine if any of the Refuge's habitats are conducive to a successful introduction of this species. Should adequate and suitable habitats for prairie dog introduction be found in the Refuge, the Service would prepare a step-down management plan to deal with all aspects of this introduction and management of this species, including the exclusion of this species where their presence represents a safety hazard to Refuge staff, neighbors and visitors.

Black-Tailed Prairie Dog Populations and Private

Lands: Basically, the same commentators that expressed opposition to the introduction of prairie dogs into Refuge habitats shared views that black-tailed prairie dogs are very common and widespread, and seemed to also share the notion that prairie dogs are a pest to be rid off rather than a species to protect; an enemy of the cattle industry and farming some added.

The Service will conduct research in the interior of the Refuge to determine if suitable black-tailed prairie dog habitat exists. If suitable habitat is found in the interior of this 71,516 acre Refuge, the Service will release this species, allow them to expand to a manageable population size, and control them within the boundaries of the Refuge.

This proposed expansion is in line with the Service's efforts to protect the ever decreasing numbers and size of black-tailed prairie dog colonies nationwide. The Service has estimated that this species' range has decreased by an alarming 95 percent from the time of the European settlement of the western United States. As a matter of fact, one subspecies, the Utah prairie dog, is already a federally listed and protected species under the Endangered Species Act, and lately, the Service has been petitioned to list the black-tailed prairie dog as well, given the precipitous decline in the species populations. Most researchers attribute this alarming population decline to human activities, specially past and ongoing prairie dog eradication efforts. The same highly effective eradication efforts that led to the precipitous decline in prairie dog populations are believed to have caused the disastrous decline in population and near extinction of the federally listed black-footed ferret. The Service is currently reviewing the petition to list the black-tailed prairie dog and is concerned with populations of other species that depend on prairie dogs, such as the ferruginous hawk and other raptors.

Prescribed Burns

Some commentators expressed concern and scepticism to the Service's proposal to utilize prescribed burns as habitat management tools on the Refuge. Some commentators wrote that prescribed burns are not a viable grassland management tool in the Sandhills habitats of Nebraska and that this practice could ruin the fragile Sandhills ecosystem. But the Service believes that, properly done (as proposed), this tool is not only viable but of tremendous value to reinvigorate and maintain the health of the Sandhills habitats. The Service bases this assertion on the voluminous body of evidence that research and data analysis has yielded for many years not only on Service lands, but on Forest Service, National Park Service, Bureau of Land Management, and some private lands as well. Fire ecology is an established and well grounded science.

The Service personnel that participate in prescribed burns must always prepare a "burn plan" that has to be reviewed and approved by the Service's regional fire ecologists prior to any prescribed burn taking place. Furthermore, these plans must take into consideration the possibility of a escaped fire (wildfire) and have safety features to deal with eventualities such as this.

Habitat, Human Structures, and Wildlife Protection

Many people, agencies, and environmental groups felt that protecting and enhancing bird habitats should be a priority over other management issues, followed by protection and enhancement of other trust species and trust resources. Some commented that inconspicuous wildlife species, including reptiles (such as turtles), butterflies and other insects, should also be considered in the management objectives and goals of this Refuge especially in relation to the Service's proposal to improve the Refuge's road network. Some commentators believe that improved Refuge road conditions would automatically translate into higher driving speeds by Refuge visitors; thus, higher risk of cars and trucks running over some wildlife species, specially slow-moving species such as turtles, amphibians, and insects. Blanding's and yellow mud turtles are considered species of management concern that the Refuge will take into consideration in the management of Refuge resources.

Legislation (National Wildlife Refuge System Administration Act, as amended) mandates wildlife conservation as the overriding mission of the National Wildlife Refuge System and, as such, it is the most important issue at Valentine NWR. Protection of wildlife habitat, especially for feeding, resting, and nesting birds and their young, would define the types of visitor activities and access allowed at the Refuge. Another responsibility of this and any other national wildlife refuge will be to preserve, restore, and enhance threatened and endangered species and migratory birds, as well as species of management concern. To carry out this responsibility, the Refuge's flora and fauna must be protected from human adverse impacts (i.e., overgrazing, overburning, pollution, and disruptive or incompatible activities). Public use of the Refuge's proposed Wilderness Area, and the rest of the Refuge lands must be managed to prevent disturbance of nesting birds. Nonnative plant species must be controlled and/or eradicated to restore native plant communities in upland and wetland areas, thereby enhancing habitat for migratory birds. How to provide wildlife-dependent recreation and opportunities for environmental education, while at the same time ensuring wildlife protection, is an issue to be resolved through effective adaptive management.

The Refuge will consider and implement safeguards for wildlife species in conjunction with road rehabilitation and enhancement, which might include: road design that slows vehicular speeds, signaling (i.e., speed signals, wildlife crossing signals, etc.), speed bumps, etc.

The Service received a few comments comparing the wildlife diversity and rangeland health of private lands adjoining Service lands to that of the Refuge, and arguing that the range management techniques and the history of domestic cattle grazing on their properties had led to better wildlife habitats than those present at the Refuge.

Those comments came mostly from landowners adjacent to or in the general vicinity of the Refuge. However, none of these commentators provided data and thus, the Service believes these comments were based solely on anecdotal observation or are a matter of opinion. Wildlife biologists on Valentine NWR have gathered data and information for many years indicating substantial improvement in wildlife habitat since 1972. This fact also has been acknowledged by the State's wildlife management agency, the Nebraska Game and Parks Commission.

Hunting, Recreation, and Other Public Uses

Some commentators expressed desire to see an expansion of hunting opportunities at the Refuge, opposition to the proposed closing of hunting opportunities in the area of the Fire Tower, and opposition to maintaining the hunting closure of the Hackberry area of the Refuge. Some of the same commentators also expressed opposition to any introduction of elk to the Refuge, primarily due to the possibility of transmission of chronic wasting disease that these large ungulates can carry.

The Refuge is currently open to waterfowl, pheasant, dove, prairie grouse, deer, and coyote hunting throughout most of the Refuge. The Service considered introducing elk to the Refuge, as a logical extension of the proposed bison reintroduction to the Refuge. However, the Service will not introduce elk at this time.

The Hackberry CCC area and the Fire Tower area will be closed to hunting due to safety concerns. The Hackberry CCC area was and will continue to be closed to hunting because State hunting regulations ban this activity in close proximity to housing or residential areas and buildings. The Fire Tower area will be the site of a nature trail and visitor observation deck. In order to ensure safety, quality of the experience, and to avoid conflicts between hunters and other visitors to the Refuge, the Service has decided to close the Fire Tower area to any hunting activities.

Management of the Refuge's Fisheries Resources

Some commentators expressed desire to see the Service expand the sport fishing opportunities at the Refuge and opposition towards the Service's proposal to continue with the current level of angling opportunities. Some other commentators, who apparently must have lacked, or misinterpreting the information provided in the Draft CCP/EA, expressed concern over the purported proposal by the Service to decrease the level of fishing opportunities at the Refuge. We are not sure why some commentators believed this. The Refuge's Draft CCP/EA preferred alternative did not mention nor imply any decreased sport fishing opportunities.

The Service intends to maintain the current level of sport fishing opportunities at the Refuge. The nine lakes on the Refuge open to fishing provide ample opportunity for sport fishing. The lakes are seldom crowded and produce many master angler bluegill, northern pike, and bass. The Refuge staff will strive to improve access to the fishing lakes by upgrading roads and boat ramps. Fisheries surveys will be conducted and stocking used to both improve and maintain sport fishing in all Refuge lakes open to fishing. Other lakes on the Refuge will be managed for migratory birds and remain closed to sport fishing.

Funding and Staffing to Manage the Refuge

Managing this Refuge requires adequate funding and staffing to effectively carry out habitat and wildlife population management activities, as well as to ensure public uses that are compatible with the System mission, environmental interpretation, and education. Some people expressed concern that the Service might not be allocated sufficient funding to implement all the goals and objectives stated in this Plan. Some commentators felt that building partnerships with public agencies, private organizations, and volunteers would increase the Refuge's management ability.

As with all activities of the Service, the implementation of the proposals of this Plan are subject to availability of adequate funding and personnel. Congress has instructed the Service to assess current management conditions of the National Wildlife Refuge System and to prepare a Comprehensive Conservation Plan to guide the activities of each refuge in the Nation for the next 15 years. The Service intends to fulfill the goals and objectives of each refuge as funding and personnel become available to each refuge, and appropriation of the funding must come from Congress in order for these plans to come to fruition. If adequate funding and personnel do not materialize, perhaps some of the proposed activities will not take place and, consequently, some of the goals and objectives stated in the draft plans will not be attained. Nevertheless, this Plan outlines the recommended course of action for the Refuge and this Plan may be the best vehicle to obtain the necessary funding to accomplish the mission for which Congress designated this area a National Wildlife Refuge.

Some of the same commentators expressed reservations or outright opposition to the need for the Service's proposal to construct and relocate an interpretive center and office to a location near U.S. Highway 83 citing concerns for the total cost of such an enterprise and questioning its real need. The Service believes that an environmental education facility that is more visible and accessible to the public will yield far more benefits than the cost attached with building, staffing, and maintaining it. Thus the Service's intention to increase its emphasis on environmental education by creating a place where this important wildlife-dependent use of the Refuge can better be attained.

Public Involvement Methodology

The Service, through this and other planning processes involving NEPA, finds itself involved in the complex and essential task of involving the public in the planning process. The public involvement process is often a difficult enterprise given the specific time-frames and schedules that accompany most Service actions, this Plan not being the exception.

Throughout the process that led to the preparation of this Plan, the Service complied with NEPA requirements to involve the public through meetings of different kinds (i.e., public scoping meetings, open house meetings, meetings with specific groups), personal communications, and the disbursement of the Draft CCP/EA that preceded this final Plan and other kinds of information, and finally, through a period of time in which all interested parties had 105 days in which to provide written comments on the proposed future Refuge goals, objectives, strategies and actions. The Service effected changes to the Draft CCP/EA as a consequence of comments and information received prior and during the public comment period.

The Service, throughout the preparation of the Draft CCP/EA, attempted to consult with and involve all the groups, entities, and individuals that expressed interest in participating. The refuge manager, his staff, and Region 6 Regional Office personnel conducted various meetings to disseminate information, and collect all possible relevant data and comments for the preparation of these Plans.

After these Draft Plans had been prepared, all those involved had an opportunity to provide written comments on the Draft CCP/EA. The original public comment period was open for 60 days, but due to the high volume of comments, the Service agreed to reopen the comment period for an additional 45 days. A typical public comment period is open for 30 days. Thus, the Service gave commentators a total of 105 days in which to provide written comments, by letter or electronic mail, to the Service.

An Open House was held on June 10, 1999, in Valentine, Nebraska. It was scheduled to take place from 3 to 8 PM; instead it ran from 2:45 until 9:30 PM due to the interest shown. The purpose of the Open House was to inform the public as to the major aspects of these Plans. The public was encouraged to provide their written comments to the Service. An Open House meeting format affords the event organizers the opportunity to reach out to a greater segment of the public and each individual person from the public to voice their comments and concerns.

Summary of Refuge and Resource Descriptions

Geographic/Ecosystem Setting

Valentine NWR is 71,516 acres in size and lies in the heart of the Nebraska Sandhills, the largest sand dune area in the Western Hemisphere and one of the largest grass-stabilized regions in the world (Bleed and Flowerday, 1989). The Sandhills are characterized by rolling, vegetated sand dunes and interdunal valleys which spread over the landscape from a northwest to southeasterly direction. Native grasses predominate. Many shallow lakes and wetlands are interspersed in the lower valleys. Wildlife diversity, except large ungulates and their predators, is relatively unchanged since early settlement in the Sandhills.

Grassland comprises 90 percent of the 19,300 square mile region with nearly 97 percent of the total acreage being in private ownership (Bleed and Flowerday 1989). The predominant land-use of the Sandhills is beef cattle production which can have significant impact upon the biological diversity of native flora and fauna. Management of lands adjacent to the Refuge and throughout the Sandhills employ a combination of grazing and haying to support the ranching economy. A variety of grazing treatments and rotations are used. Most meadows are mowed or hayed annually. Prescribed fire is used very rarely. Grasslands seldom receive a prolonged rest treatment.

In the Sandhills, habitat is not a limiting factor for those species of wildlife that rely on, or are tolerant of, disturbed cover (i.e., mowed and/or grazed grasslands). Valentine NWR is one of the few areas in the Sandhills where management can be dedicated to enhancing those species of flora and fauna that do not thrive under management strategies emphasizing economic return.

An estimated 177,000 acres of open water and marsh and 1,130,000 acres of wet meadows remain in the Sandhills. These are mostly freshwater wetlands and include wet meadows, shallow marshes, fens, alkaline wetlands, and range in size from 1 to 2,300 acres with 80 percent of them less than 10 acres in size (LaGrange 1997). Many Sandhills wetlands have been drained in attempts to increase hay production. Estimates of the amount drained range from 15 percent (McMurtry et al. 1972) to 46 percent (USFWS 1986). Wetland drainage continues to this day. On Valentine NWR, drainage ditches were dug before the area became a Refuge. Most do not carry water except in very high water years.

An Atlas of the Sandhills, 1989, by Bleed and Flowerday, is an excellent reference for those wanting more in-depth information on the Sandhills of Nebraska.

The Service has adopted an ecosystem approach to national natural resource management and has identified 52 ecosystems within the United States (USFWS, 1994). The Service has formed teams to address the most important conservation and restoration issues that each one of these identified ecosystems faces. Each one of these teams has advanced, depending on the complexity of issues within a determined area, at different paces in the identification and categorization of all of the conservation issues (Service's Resource Priorities) and goals for each of these ecosystems. Valentine NWR, according to early Service watershed-based ecosystem maps, lies within the Platte/Kansas Rivers Ecosystem.

The Service's Platte/Kansas Rivers Ecosystem team has identified the five main areas of concern that need to be addressed for this ecosystem, and they are:

- P Prairie Grassland (including the Sandhills region) restoration and preservation
- P Species of Concern (rare species)
- P Water quality
- P Native fishes, small fishes and mussels
- P Water Quantity

The Service believes that the Refuge's goals and objectives delineated in this Plan will help the Service attain the goals and objectives for these resource priorities for the Platte/Kansas Rivers Ecosystem.

Climate

The climatic patterns of the Nebraska Sandhills are characteristic of the Central Great Plains: highly variable climate characterized by cold winters and hot summers, with frequent thunderstorms occurring from the spring to late summer. Annual precipitation averages 17 to 23 inches from the western to the eastern portion of the Sandhills (Wilhite and Hubbard 1989) with approximately 65 percent occurring during the May-to-September growing season (National Oceanic and Atmospheric Administration's National Climatic Data Center 1996) which, coupled with high evapotranspiration rates, has significant ecological effect on the region. Valentine NWR has been an official weather station since 1935. Annual precipitation since 1945 has averaged 21.6 inches. Temperature extremes range from -38°F in the winter to 111°F during the summer with July and August being the warmest months (average high temperature 85-87° F) and January and February the coldest months (average low temperature 8-12° F). The average frost free period is approximately 150 days. Winds ranging from 5-15 mph are common throughout the year and are generally out of the north, west, or northwest direction in the winter and out of the south, west, or southwest direction during the summer. Climatological conditions have generally been favorable since the mid-1970's and relatively high annual precipitation levels have resulted in positive net moisture balances (annual precipitation minus open pan evaporation) during most years since 1976.

Air Quality

Air quality is good thanks to the absence of significant air pollution sources due to the distance to any urban or industrial areas from the Refuge. The proposed Valentine Wilderness is a Class 2 Status Area under the Clean Air Act.

Geology

The geologic framework of the Refuge consists of formations related to the Valentine Formation which is a sandy, stream-deposited unit unconformably overlying Rosebud formations and forming gentle slopes; Sandhills are stabilized dune sand of the late Pleistocene and Holocene age.

Soils

Soil groups and series found on the Refuge are mapped and described in detail in the 1956 Soil Survey of Cherry County. In 1997 and 1998, the soils of the Refuge were surveyed for mapping by the Natural Resource Conservation Service.

Most of the soils are wind-laid sand that has not been held in place long by vegetation. They are light colored and have little organic matter. The soils in basins, valleys, and wet meadows have thicker and darker surface layers and more organic matter than soils found in the hills. Rainfall is quickly absorbed by the sandy soils and causes little erosion and low evaporation rates. Native grasses grow well in these conditions. Soil exposed by overgrazing or plowing is subject to wind erosion (Layton et al 1956). The main soil types are the Valentine-Els-Tryon, Valentine-Thurman Associations (Kuzila 1989), Valentine (fine sand, undulating), Valentine-Rosebud (loamy fine sands, undulating) and Dune Sand (stabilized, rolling).

Refuge Resources, Cultural Values and Uses

Water Resources and Associated Wetlands

The Nebraska Sandhills overlay the High Plains Aquifer - commonly referred to as the Ogallala Aquifer. This groundwater resource creates an interspersed of shallow lakes, semipermanent, and temporary wetlands in the lower elevations and valleys where the groundwater level is exposed. Water resources are the driving force supporting the ecological diversity and integrity of the Nebraska Sandhills.

Thirty-seven major wetland complexes are on Valentine NWR totaling approximately 13,000 acres. These wetlands are a mix of shallow lakes, marshes, seasonal wetlands, wet meadows, fens, and small streams that run during high water periods. Wetlands are well dispersed throughout the Refuge grasslands. Submergent and emergent vegetation in lakes and marshes range from very sparse to dense depending on soils and alkalinity. Emergents include cattail, bulrush, wild rice, and phragmites. Vegetation bordering wetlands is primarily grasses. Some lakes are bordered by trees on the south shores.

Water control structures have been installed on six lakes, however, only four can increase water elevations significantly above the maximum, naturally functioning level. Several Refuge lakes have water level gauges where records of lake levels are recorded. Refuge staff also record water levels in U.S. Geological Survey groundwater survey wells. Some old drainage ditches dug before the Refuge was established remain. These ditches are only partially functional due to siltation and perhaps poor design. In several areas, wetlands have been dug out in wet meadows and fens to produce open water areas.

Most of the wetlands on the Refuge rise and fall depending on precipitation and groundwater levels. Precipitation for the past 17 years has been high resulting in record levels for lakes. The Marsh Lakes, historically a very large cattail marsh with three areas of open water and a closed basin, is now one large lake with water flowing out of the basin. Refuge wetlands normally function as a closed system and only during high precipitation periods does excess surface water exit the Refuge. Refuge wetlands are shown in Figure 2.

Vegetation

Grasslands

Sandhill Prairie is within the wide transitional zone of the Mixed Grass Prairie between Tallgrass Prairie and the Short Grass Plains. Annual precipitation is typical of the semiarid Mixed Grass Prairie; however, the Nebraska Sandhills is characterized by a predominance of post climax tallgrass species typical of a greater moisture regime (Oosting 1948, Keeler et al. 1980). This mixture and general dominance by Tallgrass Prairie species is locally influenced by topography (i.e., the soil moisture holding capacities and soil moisture penetration in different textures of the sand soil range sites and the root structures and the photosynthetic strategies of cool and warm season plants) (Tolstead 1942, Barnes 1984). Refuge vegetation is shown on Figure 3. Four basic range sites are located within the Sandhills.

Wetland range sites are the low meadow sites dominated by grass species that thrive in a moisture saturated soil profile (i.e., prairie cordgrass, blue-joint reedgrass, sedge species, and non-grass species such as golden rods, saw-toothed sunflower and willows). A federally threatened species, western prairie fringed orchid, is found within the wetland range site.

Sub-irrigated range sites are meadows that are very close to the groundwater level. Sub-irrigated range sites are dominated by Tallgrass Prairie species such as big bluestem and Indian grass. Soil moisture in the sub-irrigated range site is adequate to support the deep rooted warm season native grasses even during periods of drought. Sub-irrigated range sites are commonly invaded by exotic species such as Kentucky bluegrass, smooth brome, and red top.

Sand range sites comprise the dry meadows (low sand sites) and the gently undulating Sandhills. Native vegetative species common to the sand range sites are cool season grasses: needle-and-thread, porcupine grass, prairie June grass and western wheat grass; and warm season grasses typical of the Tallgrass Prairie: prairie sandreed, sand bluestem, sand love grass, little bluestem, and switchgrass. Typical non-grass species of the sand range site include stiff sunflower, yucca, lead plant, and prairie rose. Exotic smooth brome and Kentucky bluegrass tend also to invade the lower elevations of the sand range sites.

Choppy sand range sites are the characteristic sand dunes for which the Nebraska Sandhills is named. Many vegetational characteristics are common to the sand range sites, but there is a greater proportion of unvegetated sand soil surface that is subject to wind and water erosion. Typical perennial grasses include: blue grama, sand bluestem, prairie sandreed, blowout grass, sand love grass, little bluestem, spiny muhly; and non-grass species include yucca, prairie rose and sunflowers. The federally endangered species, blowout penstemon, is endemic to the Nebraska Sandhills and its characteristic habitat includes the blowouts and open sand areas of the choppy sand range sites.

Native perennial and annual flowering forbs adorn the various range sites on Valentine NWR; some of which are only found on native grasslands that have not been degraded by the impact of modern man (i.e., conversion of grassland to farm land, use of herbicides, and chronic overgrazing of livestock) (Weaver 1961, Farrar 1990).

Woodlands

Approximately 45 species of native and introduced trees and shrubs exist in the Sandhills. Native willows are found around wetlands as are occasional cottonwoods. Hackberry, choke cherry and American plum are found on the north slopes usually adjacent to the south sides of lakes. The abundance of woody cover has drastically changed since Valentine NWR was established. Many shrub and tree species, including nonnatives, were planted by the Civil Conservation Corps during the 1930's. Since then cedar and Russian olive trees have been expanding and invading grassland and are beginning to jeopardize the floral and faunal integrity of native Sandhills Prairie.

Exotic and Invading vegetation found on or near the Refuge includes leafy spurge, purple loosestrife, Canada thistle, Kentucky bluegrass, smooth brome, downy brome, sweet clover, reed canary grass, phragmites, Eastern red cedar, Russian olive, black and honey locusts.

Wildlife

The Sandhills of Nebraska is one of the few prairie areas in the United States that has not been converted to farmland. This, plus the abundance of a variety of wetlands, has resulted in most of the native plants and animals historically found in the area still being present today. A list of bird, mammal, amphibian and reptile species present at Valentine NWR can be found in Appendix F.

Birds

The avifauna of the Nebraska Sandhills is extremely diverse with 270 species making up the Valentine NWR bird list. There are four endangered species that are migrants or winter residents only and three species on the species of management concern. Of the latter three, the ferruginous hawk is a migrant and the black tern and loggerhead shrike are abundant and common breeding species on Valentine NWR.

Many herons, egrets, shorebirds, and marsh and waterbirds use the Sandhills wetlands for nesting and migration. The North American Waterfowl Management Plan lists the Sandhills as a habitat of major concern in North America (USFWS and CWS 1986). Bellrose (1980) lists the Sandhills as the most important waterfowl production area outside the Prairie Pothole Region. The most common waterfowl nesting on the Refuge are mallard, blue-winged teal, northern shoveler, gadwall, Canada geese, and pintails. Trumpeter swans are a resident species.

Prairie grouse habitat and populations are being reduced significantly in North America (Proceedings Prairie Grouse Technical Conference 1998, Cornely and Braun 1997, Proceedings Minnesota Prairie Chicken Society 1998, Boydeck 1997, Boyce 1997, Hoffman and Beauprez 1997). Prairie chickens are of special concern. The Sandhills and Valentine NWR are important for conservation of both prairie chickens and sharp-tailed grouse and one of only a few places where significant populations of both species in the same area exist.

The riparian shorelines on Valentine NWR are primarily native willows which provide habitat for many neotropical migrants (Sedgewick 1993). The high water levels of the past 10-15 years have discouraged significant use by migrating shorebirds.



Valentine National Wildlife Refuge

Cherry County, Nebraska

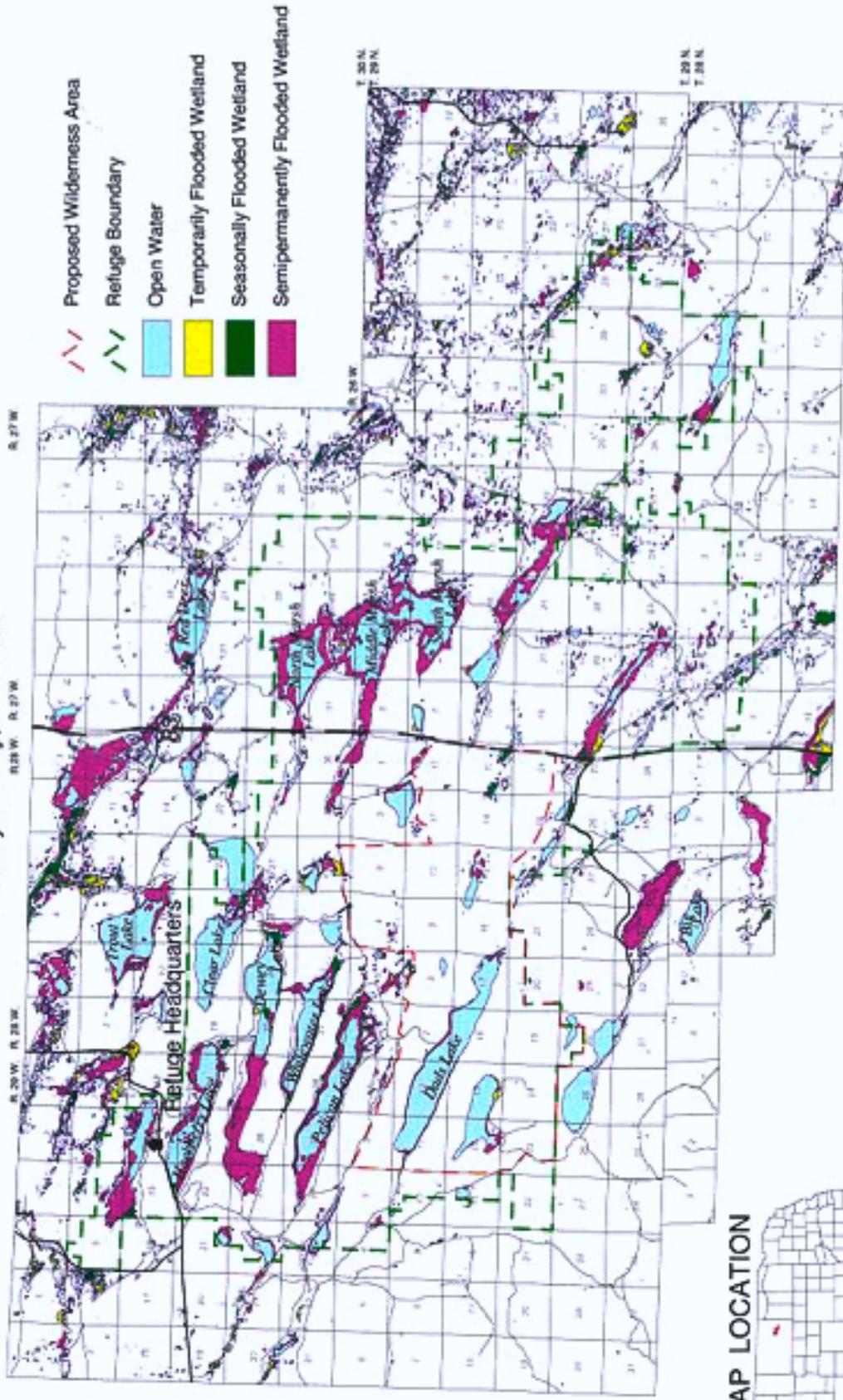


Figure 2: Wetland Map



Valentine National Wildlife Refuge

Cherry County, Nebraska

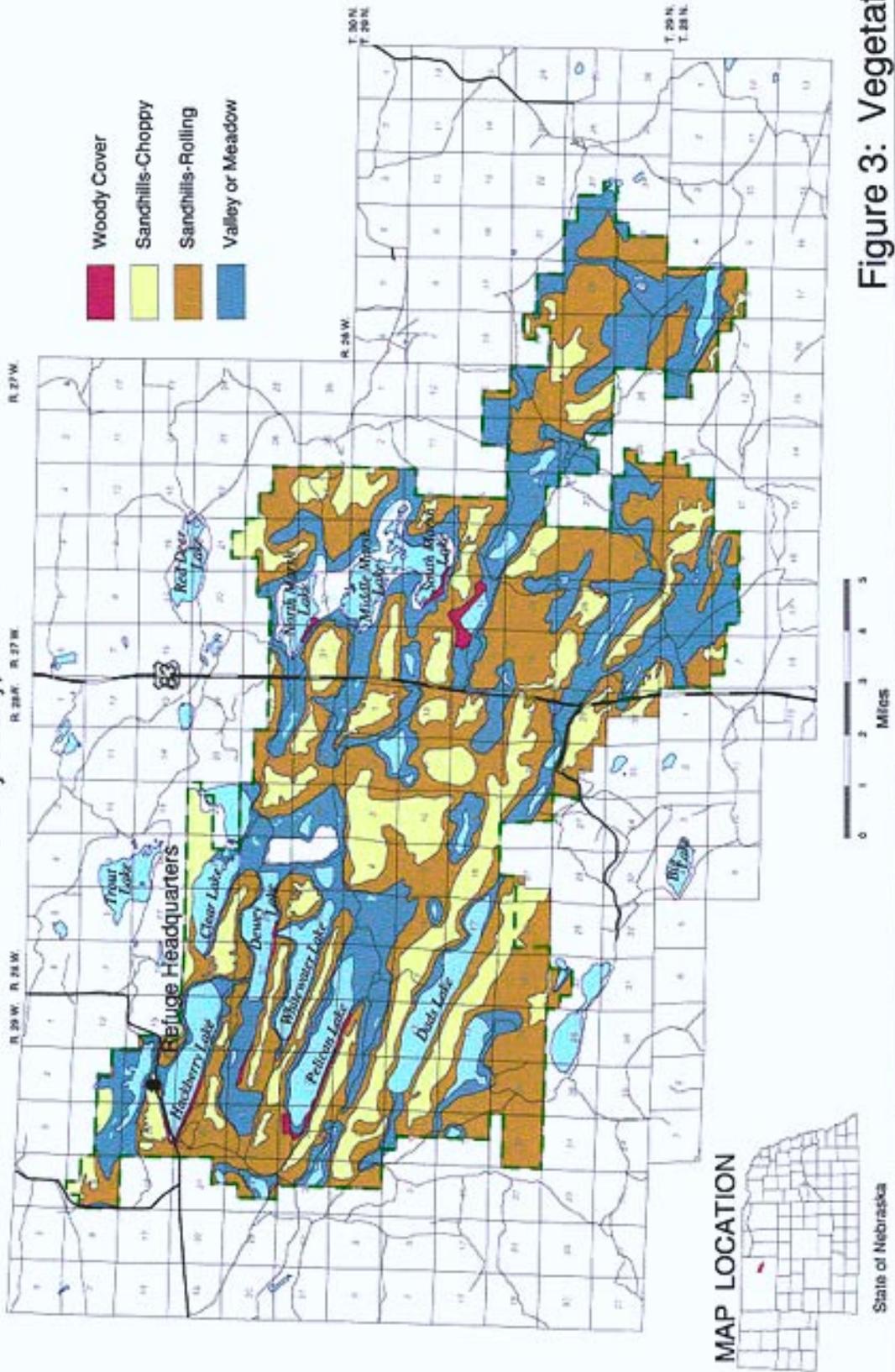


Figure 3: Vegetation Map

Mammals

The Nebraska Sandhills provide two distinct land types, Sandhills and wet meadows, that support an abundant diversity of native mammals. The original native mammalian fauna probably comprised 59 species. Ten carnivores and ungulates were probably extirpated by the turn of the century. The remaining 49 native mammal species have been augmented by ten additional species introduced or whose ranges have been extended (Jones 1964, McDaniel 1967, Freeman 1990, and Bogan and Ramotnik 1993). One native species, the swift fox, is on the Federal Candidate Species List as well as the State Endangered Species List. The present range of occurrence of this species is within the region of Valentine NWR, but no recent sightings have been made.

Amphibians and Reptiles

The Nebraska Sandhills are within the range of 26 to 27 species of amphibians and reptiles (Freeman 1990). Twenty-two species are relatively common on Valentine NWR, including 6 amphibians, 5 turtles, 4 lizards, and 7 snake species. The turtle fauna on Valentine NWR is rich in species with abundant populations (Corn et al. 1993) - especially the Blanding's turtle and the yellow mud turtle which are species of management concern. Of the seven snake species on Valentine NWR, only the milk snake and prairie rattlesnake do not occur in any significant numbers.

Fishes

More than 75 species of fishes have been recorded in the Sandhills (Hrabik 1989) including a mix of native and introduced species. Most are fishes of rivers and stream and thus not found on Valentine NWR. Native fishes known to occur on the Refuge include grass pickerel, fathead minnow, brook stickleback, green sunfish, and bullhead. No complete survey of native fishes has been made.

Nonnative fishes including northern pike, largemouth bass, bluegill, saugeye, yellow perch, and muskellunge are stocked and managed for sport fisheries in nine Refuge lakes open to fishing. In the past, black crappie, channel catfish, flathead catfish, Sacramento perch, and trout were introduced. The Refuge lakes are noted in Nebraska for fine bluegill and pike fishing and are a popular destination for anglers from Nebraska and other states. Under cooperative agreement, the Nebraska Game and Parks Commission collects brood stock and eggs from the Refuge lakes for their hatchery operations. They also stock fishes in Refuge fishing lakes.

Carp entered the Refuge via the Gordon Creek diversion and have been a continual problem in Refuge lakes and wetlands. In recent years, high water levels have connected additional lakes, and carp are now found throughout the Refuge. In recent years, carp entered the Marsh Lakes, the best waterfowl and other water bird habitat on the Refuge. In the late 1970's and early 1980's, lakes open to fishing were treated with rotenone to reduce carp populations and improve sport fishing, water quality, and habitat for waterbirds. Restrictive size limits have been placed on northern pike to protect them as a predator of the carp. This measure has been partially successful in keeping carp populations in control.

Insects

Three insect species are on the list of species of management concern -- the regal fritillary butterfly, the Belfragi's chlorochroan bug, and the noctuid moth. However, systematic monitoring of the diverse insect life on and adjacent to Valentine NWR has not been done. In 1983, personnel from the Smithsonian Institute's Museum of Natural History, Washington, D.C., collected small moths on Valentine NWR and reported that a minimum of 25 species had not been previously described. The occurrence of the endangered American burying beetle is another case in point that insect life and range of occurrence of insects are not well documented throughout the Nebraska Sandhills.

Threatened and Endangered Species

Some species listed under provisions of the Endangered Species Act have been documented on the Refuge and/or in the surrounding area.

Federally Listed Animals

The following rare and endangered species have been documented on Valentine NWR during spring and/or fall migrations: bald eagles, interior least tern, piping plover, and whooping crane. Most are only recorded at intervals of several years. Bald eagles are annual winter residents. Generally a maximum of six bald eagles are recorded during the winter survey. In late winter, up to 100 bald eagles have concentrated at fish kills both on and adjacent to the Refuge.

The American burying beetle was listed under the provisions of the Endangered Species Act in 1989. Before 1992, Valentine NWR was considered outside the previously known range of the American burying beetle. Six records of the species were documented in 1992, and in 1993, one specimen was photographed on Valentine NWR, and a second specimen was recovered from private land adjacent to Valentine NWR. A limited survey conducted in 1998 recorded eight beetles. However, grassland management on Valentine NWR that encourages the production of waterfowl and prairie grouse, (i.e., a potential carrion food source of appropriate size) (USFWS 1991), should enhance the survival of this species.

Federally Listed Plants

Blowout Penstemon

Hayden's, or blowout penstemon, is perhaps Nebraska's rarest plant and is listed as endangered under the provisions of the Endangered Species Act (Farrar 1990). Listing was accomplished in 1987. This species is endemic to the Nebraska Sandhills and is dependent upon disturbance, to promote the blowouts or open sand habitat, for its existence (Fritz et al. 1992). The plant grows in and around blowouts, areas of open sand maintained by wind erosion. A small number of naturally occurring blowout penstemon plants have been found in three locations on the Refuge. In recent years, seedlings have been transplanted into nine blowouts in an attempt to increase the population.

Blowout penstemon has also been documented at two locations immediately adjacent to Valentine NWR. Since 1979, annual inventories have been conducted by personnel from the University of Nebraska-Lincoln, Chadron State College, and Valentine NWR.

Western Prairie Fringed Orchid

The western prairie fringed orchid is one of Nebraska's rarest wildflowers (Farrar 1990) and, in 1989, was listed as threatened under the provisions of the Endangered Species Act. Prairie fringed orchid site locations are characterized by a high soil moisture profile common to the wetland range sites on Valentine NWR (Fritz 1993). Since 1985, inventories have been performed by Nebraska Game and Parks Commission and Valentine NWR personnel. Prairie fringed orchids have been documented at eight sites on Valentine NWR and at three sites on private land immediately adjacent to Valentine NWR.

Grassland management treatments that pose a threat to prairie fringed orchids are continuous and/or inopportune timing of grazing and mowing; the indiscriminate use of herbicides; and application of insecticides that may affect populations of the insect pollinators (Fritz 1993). Prairie fringed orchids have been reported to respond to spring grassland burns (Sather et al. 1992) and fall burns (Hull-Seig and King 1995). Management on Valentine NWR involves excluding prairie fringed orchids from mowing and grazing manipulative treatments during the critical period of plant growth through the maturation of seeds (June - September).

Cultural and Paleontological Resources

Limited cultural resource inventory has been conducted on the Refuge. No sites of Native American occupation are known. Before becoming a Refuge, the land was used for cattle ranching. The ranch headquarters area has little remaining. One house at Pelican Lake was part of a ranch and is now used for Refuge housing. Some remains of old waterfowl hunting camps can be seen around the Marsh Lakes. The Civilian Conservation Corps had a camp at Valentine NWR and most of the buildings at Hackberry Lake were built at this time. The house at Pelican Lake and the CCC construction at Hackberry Lake Headquarters have been determined eligible for nomination to the National Register of Historic Places. Two fire observation towers built by the CCCs are on the Refuge. The CCCs had a resort at Dads Lake of which the foundations and chimney are still present. They also planted most of the tree belts found on the Refuge.

Euro-American settlement of the Sandhills began in the late 1870's and 1880's and corresponded with the strong cattle market provided by the Military Fort near the Refuge. The railroad (Fremont, Elkhorn, and Missouri Valley) reached Fort Niobrara in 1883 resulting in the development of the town of Valentine. Homesteading was further encouraged by the Fort's ready market for local farm produce and labor. Several saw and flour mills were in operation along the Niobrara River by the mid-1880's. Homesteading and farming grew during the 1880's but were challenged by drought and recession in the 1890's. The 1904 Kinkaid Act encouraged more settlement; however, the Sandhills was nearly the last of the Great Plains to be homesteaded. Population in the area increased and peaked during World War I with elevated commodity prices but steadily declined to current levels (Miller 1990).

Socio-Economic and Political Environment

The Refuge is located in Cherry County approximately 25 miles south of the city of Valentine, which is also the seat and biggest city of the county with a population of approximately 2,800 (see Figure 1). Cherry County is the largest County in Nebraska with a total area of approximately 6,013 square miles with an economy based primarily on ranching and tourism. The Yellowthroat WMA is located in Brown County while the Holt Creek WMA is located in Keya Paha County. The Refuge contributes to the economies of these counties primarily by attracting tourists, bird-watchers, hunters, and anglers. The rural population in these counties is very sparse due to large ranch sizes.

Predominate land-use in Cherry County is native prairie grazing and haying with less than 10 percent of the acreage cropped or irrigated (Miller 1990). Family-owned ranching is the primary source of income in these counties, although income generated from tourism is increasing. The permitting of some grazing and haying on Service lands benefits the local economy, as do the in-lieu-of-tax payments made to Cherry County for Service lands. Presently, eight ranchers have permits to graze and/or hay on the Refuge. The grazing permitted is an important part of their ranching operations.

According to the County and City Data Book (U.S. Bureau of Census, 1994), for the year 1989, the median family income for Cherry County was \$22,902, the median household income was \$18,962 and the per capita income was \$10,758. The percentage of households, for the same year, with annual income levels below \$15,000 was 37.8 percent. The number of families with income below the poverty level was 286 and the number of persons was 1,386. According to the same source, Cherry County minority population (excluding women) accounted for only .4 percent of the total population (218 persons out of 6,336 in the 1992 Cherry County population).

Nebraska State Highway 83 cuts through the center of the Refuge and State Spur 16B goes to the west end of the Refuge. The nearest airport with scheduled passenger service is in North Platte, 136 miles south of Valentine. Most of the land adjacent to the Refuge is in private ownership. The Nebraska Game and Parks Commission owns two Wildlife Management Areas, Rat and Beaver Lake WMA and Willow Lake WMA, adjacent to the Refuge. The State also owns four parcels of school land managed by Educational Lands and Funds which border the Refuge. Some School lands are scheduled to be sold in the future. Other public lands in the Sandhills include Merrit Reservoir State Recreation Area, Bowring Ranch, and the Cowboy Trail, and several additional WMAs managed by the Nebraska Game and Parks Commission; the McKelvie and Halsey National Forests managed by the U.S. Forest Service; and several small tracts managed by the Bureau of Land Management. The Nature Conservancy manages the large Niobrara Valley Preserve at the northern edge of the Sandhills.

Public Uses

Valentine NWR is presently open to wildlife observation and photography, fishing, hunting, and environmental education and interpretation activities. Public use of the Refuge occurs year-round with the greatest amount of visitation documented from mid-May to mid-October. A more detailed look at current levels of use can be found in the Environmental Assessment on Appendix H. NEPA Documentation, under the Current Management (No Action) Alternative discussion.

Facilities for visitors are limited. Most interior Refuge roads are two track trails which are often only passable in 4-wheel drive and often closed when water is high or snow is deep. Mowed parking areas are near primitive boat launches. One handicapped accessible fishing dock and surfaced boat ramp are at Watts Lake. Rest rooms are available in the summer at Hackberry Lake. Three information kiosks with leaflet dispensers are at Refuge entrances. Refuge entrances and boundaries are marked with signs, and limited directional and regulation signs are on the Refuge.

Special Management Areas

Special Legislated Designations

Wilderness Area

Definition of Wilderness

The Wilderness Act of 1964 (Public Law 88-577 [16 U.S.C. 1131-1136]) defines wilderness as follows: "A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

Principles Governing the Management of Wilderness Areas

Manage wilderness as a distinct resource with inseparable parts.

1. Manage the use of other resources and activities within wilderness in a manner compatible with the wilderness resource.
2. Allow natural processes to operate freely within wilderness.
3. Attain the highest level of primeval wilderness character within legal constraints.
4. Preserve wilderness air and water quality.
5. Produce human values and benefits while preserving wilderness.
6. Preserve outstanding opportunities for solitude or a primitive and unconfined recreation experience in each wilderness.
7. Control and reduce the adverse physical and social impacts of human use in wilderness through education or minimum regulation.
8. Favor wilderness-dependent activities when managing wilderness use.
9. Exclude the sight, sound, and other tangible evidence of motorized or mechanical transport wherever possible within wilderness.
10. Remove existing structures and terminate uses and activities not essential to wilderness management or not provided for by law.
11. Accomplish necessary wilderness management work with the "minimum tool."
12. Establish specific management direction with public involvement, in a management plan for each wilderness.
13. Harmonize wilderness and adjacent land management activities.
14. Manage wilderness with interdisciplinary scientific skills.
15. Manage special provisions provided for by wilderness legislation with minimum impact on the wilderness resource.

In 1973, the entire Refuge was studied to ascertain the suitability or lack thereof of the Refuge or any portion of the Refuge for inclusion in the National Wilderness Preservation System. Following the study, a 16,317-acre portion of the Refuge was recommended for inclusion. The boundaries of the proposed wilderness are shown in Figure 2, Wetland Map. Congress must approve the change from a proposed to a designated wilderness but has taken no action. In 1999, the proposed wilderness area was included, along with several other refuge wilderness study areas, in a proposal to Congress to complete designation. In 1998, the proposed wilderness area was reduced in size when 508 acres in the designated area were traded for private lands which were added in another area of the Refuge. Proposed wilderness areas are to be managed as wilderness areas until the designation is completed or withdrawn. Present management of the proposed wilderness area is described in various sections throughout this Plan.

The proposed wilderness is located in the southwest portion of the Refuge. The proposal includes two large lakes, Dad's and Mule, and several smaller ones. The smaller lakes are bordered by marshes while Dad's Lake, one of the largest natural lakes in the Sandhills, is bordered on the south by a narrow strip of trees and brush and high sandy hills. Vegetation and wildlife is similar to that found in other areas of the Refuge. The area is very scenic with the native grasses, undeveloped lakes, high choppy sand hills, and feeling of isolation and the expanse of the prairie. Man-made structures in the wilderness consist of a few windmills and tanks, electric and barbed wire fences. Visible from within the wilderness area are Highway 83 to the east, a power line to the west, a radio tower to the south, and a few isolated ranch buildings.

The area of the Refuge proposed for designation as Wilderness is to be managed according to the Wilderness Act of 1964 which requires wilderness areas to be managed in a natural condition for solitude or a primitive and unconfined type of recreation. Until such a time as Congress either officially designates the area as Wilderness or drops it from further consideration for designation.

Research Natural Areas

Two research natural areas are located on Valentine NWR. They are called the George Wiseman Natural Area and Natural Area 2. They are south of Hackberry and Dewey Lakes, and have a combined total size of 1,381 acres. These areas are currently closed to access and have not been subjected to cattle grazing.

National Landmark

In 1979, the special qualities of the Sandhills were recognized when Valentine NWR was designated a Registered Natural Landmark by the Heritage Conservation and Recreation Service.

Management Direction

Refuge Management Direction: Goals, Objectives, and Strategies/Projects

Refuge Goals and Objectives

The mission and purposes of the National Wildlife Refuge System, the purpose(s) for which a refuge was established, and the existence of an area being studied for designation as wilderness within the Refuge boundaries are the primary references for setting refuge goals and objectives. The ecosystem priorities provide a secondary reference for setting refuge goals and objectives.

Refuge goals are qualitative statements that define what outputs and outcomes a refuge must achieve to satisfy the System's mission and purposes as well as the refuge's purpose(s). Refuge objectives are benchmarks indicating progress toward achieving the mission, purposes and goals.

Valentine NWR goals and objectives are listed below. These goals and objectives were established during the developmental stages of this Plan and refined, updated and merged with each revision during the planning process of the Draft Comprehensive Conservation Plan and Environmental Assessment.

The goals and objectives were the benchmarks used for the development of the Preferred Alternative from among the management actions discussed in the Alternatives presented in the Draft Comprehensive Conservation Plan and Environmental Assessment (see Appendix H for more information on the alternatives considered during the draft stages of this Plan).

The Refuge planning team spent considerable time defining habitat and other objectives to further describe management actions needed to meet Refuge goals. They are presented in this Plan to provide a logical step-down from the broad purpose and vision statement to concrete management decisions.

Interrelationships of Goals and Objectives

The subsequent Refuge goals and objectives are being presented separately for ease of understanding and reference. They are, however, not independent of each other. The goals and objectives, and the resources and activities discussed are completely interrelated in spatial, ecological, and management considerations.

The habitat goals and objectives are the primary criteria which refuge managers will use to guide their efforts and evaluate successes towards accomplishing this Plan. Goals and objectives for habitat, wildlife, threatened and endangered species, interpretation and recreation, and ecosystem provide additional information for managers to refine specific actions and to help in evaluating success of habitat management and use of the Refuge by the public. In order for refuge managers to achieve the vision of the Refuge in full, these objectives need to be understood holistically and applied in combination, each being a critical part of the Refuge vision.

P Habitat Management

Goal: -Preserve, restore, and enhance the ecological diversity of indigenous flora of the physiographic region described as Sandhills Prairie within the Northern Great Plains.

Grassland Management

Grasslands will be maintained through grazing so that a minimum of 60 percent of the meadow areas and 55 percent of the hills are in undisturbed cover.

The use of prescribed fire will be increased to invigorate grasslands, and provide cedar control. From 1,000 to 8,000 acres could conceivably be treated annually.

Grasslands Habitat (Composition) Objective: Preserve, restore, and enhance the diverse native floral communities so that greater than 75 percent is composed of climax species (good to excellent range condition). The following are the indicator species and composition of the desired floral community by range site (USDA Range Handbook and Potential Natural Vegetation of Nebraska - Kaul and Rolfsmeier, 1993).

Wetland Range: Eighty percent grasses (bluejoint and northern reedgrass, inland saltgrass, prairie cordgrass and foxtail barley); 15 percent grasslike plants (sedges and rushes); 5 percent forbs (saw-toothed sunflower, marsh hedge-nettle, Indian hemp dogbane, swamp milkweed, arrowhead and smartweeds).

Sub-irrigated Range: Seventy-five to 85 percent grasses (switchgrass, big bluestem, Indian grass, Scribner's panicum, prairie cord grass, inland saltgrass and purple lovegrass); 5-10 percent grasslike plants (sedges and rushes); 5-10 percent forbs (American licorice, blue verbena, purple prairie clover, stiff sunflower, nodding lady's-tresses, western ironweed, milkweeds, goldenrods, closed and downy gentians, blue lobelia, and the threatened western prairie fringed orchid); 5 percent shrubs (leadplant, willow, poison ivy, western snowberry, Arkansas and Wood's wild rose).

Sand Range: Eighty to 95 percent grasses (switchgrass, sand bluestem, little bluestem, big bluestem, Indian grass, prairie sandreed, needle-and-thread, porcupine grass, sand love grass, Canada wildrye, Scribner's panicum, western wheatgrass, prairie June grass); less than 5 percent grasslike plants (sedges); 10 percent forbs (blue verbena, bush morning glory, cudweed sagewort, blazing star, penstemons (shell-leaf, narrow beardtongue), western ragweed, bracket spiderwort, Rocky Mountain bee plant, evening primrose, prairie coneflower, silky and purple prairie clovers, gilia, ten-petal mentzelia, sunflowers, goldenrods, vetches, scurfpeas, yucca and pricklypear cactus); less than 5 percent shrubs (Arkansas and wild rose, leadplant, green sage, poison ivy, sand cherry, wild plum, chokecherry and western snowberry).

Chopy Sands Range: Eighty-five percent grasses (prairie sandreed, little bluestem, sand bluestem, blowout grass, needle-and-thread, prairie June grass, sand dropseed, sand love grass, spiny muhly, switchgrass, and blue grama); less than 5 percent grasslike plants (thread-leaf sedge); less than 10 percent forbs (bush morning glory, painted milkvetch, bracted spiderwort, western ragweed, cudweed sagewort, sunflowers, scurfpeas, yucca, pricklypear cactus and the endangered blowout penstemon); less than 5 percent shrubs (Arkansas and wild rose, green sage, poison ivy, sand cherry, wild plum, chokecherry and western snowberry).

Grassland Cover (Structure) Objective: Annually provide diverse vegetation composition and structure with greater than 50 percent (30,930 acres) of the total grassland (61,861 acres) remaining in undisturbed cover (i.e., vegetative cover that has not been disturbed by grazing, mowing or fire during the preceding growing season through July 10 of the current year) to meet nesting, brooding, feeding and protective cover requirements of various grassland dependent wildlife species. The following combinations of cover treatment and vegetative structure are recommended for meadow and hill acreage:

Cover Treatment	Acreage (%)	VOR Ave. (Range)*
Meadow (13,106 Acres)		
Disturbed cover	~ 5,200 (~ 40%)	~ 3.0" (1-10")
1 Year Rest	~ 2,600 (~ 20%)	~ 10.0" (2-20")
2 Years+ Rest	~ 5,200 (~ 40%)	~ 12.0" (4-24")
Hills (48,755 Acres)		
Disturbed cover	~ 21,900 (~ 45%)	< 3.0" (1-10")
1 Year Rest	~ 12,200 (~ 25%)	= > 6.0" (1-16")
2 Years+ Rest	~ 14,600 (~ 30%)	= > 6.0" (1-18")

* - Visual Obstruction Readings averages are residual cover readings taken in the Fall (before the upcoming nesting season).

Wetland Management

The Service will continue to maintain water control structures and depths appropriate for sport fisheries at designated fishing lakes. Ditch plugs will be placed on ditches unnecessary for water management. The Refuge staff will conduct drawdowns and renovations of wetlands and lakes when possible to rejuvenate wetland plant productivity and diversity, and provide carp control. Sport fishing lakes may periodically be drawn down and renovated. Renovations in these cases would include restocking with appropriate mixes of sport fish species.

Wetland Habitat Objectives: Groundwater Resources: Maintain a database on Refuge groundwater resources to ensure long-term protection of Refuge groundwater quantity and quality.

Surface Water Resources: Maintain a database on Refuge surface water resources by documenting wetland elevations for long-term protection of Refuge water supplies.

Maximize production of invertebrate (protein) and plant (carbohydrate) resources on 11,181 wetland acres to provide an appropriate food base for indigenous wildlife (migratory birds, mammals, reptiles, amphibians, fish) and enhance production on 2,650 acres of lakes for sport fishing.

Maximize food production for migratory birds by providing an unexploited food base on the following acreage of wetlands that are not designated for sport fishing:

<u>Wetland Class</u>	<u>Acreage</u>
Temporary	735
Seasonal	1,094
Semipermanent	4,636
Lakes	<u>4,716</u>
Total Acreage	11,181

Enhance food production by periodic drawdowns/renovations on the following Lakes designated for sport fishing:

<u>Wetland</u>	<u>Acreage</u>
Clear	532
Dewey	494
Duck and Rice	118
Hackberry	528
Pelican	617
Watts	173
West Long	76
Willow (Refuge)	<u>112</u>
Total	2,650

Maintain Dewey Marsh Fen and identify and maintain other fen sites which have unique vegetation and hydrology.

Indigenous Trees, Brush, and Planted Tree Habitat

Objective: Enhance the Sandhill Prairie landscape by reducing invading cedar trees while still maintaining a representative interspersed of indigenous woody vegetation per the following specific objectives.

Site specific indigenous woody vegetation

recommended targets: Maintain indigenous woody vegetation of the north facing slopes next to the south shorelines of Clear, Dewey, Hackberry, Pelican, Whitewater, Dad's and South Marsh Lakes.

Maintain indigenous willow tree and brush on the northwest-west ends of Dewey, Hackberry and Pelican Lakes and around Duck Lake.

Maintain indigenous trees in and adjacent to the Headquarters and Sub-headquarters areas.

Recommended maximum target level of composition by habitat unit: Willow occurrence and invasion on meadows and around lakes (less than 10 percent).

Cedar occurrence and invasion on meadows (less than 5 percent) and in the Sandhills (less than 5 percent).

Reduce cottonwood invasion in the northern King Flat area.

Maintain the two relic stands of quaking aspen at the west end of Watts Lake Habitat Unit (H.U. 1A) and the north side of Dewey Marsh (H.U. 3B)

Exotic and Invading Species

The Service will continue its integrated pest management program. Mechanical and some chemical control to reduce Canada thistle, invasive cool season grasses, and leafy spurge will continue. Increased efforts to reduce cedar and exotic cool-season grasses through prescribed fire will be conducted.

Exotic and Invading Species Objective: Prevent additional exotic plant species from becoming established and reduce the occurrence, frequency and stand density of existing exotic species to less than 5 percent of composition within five years. The invading and exotic species targeted by this objective include, but are not limited to:

Russian olive	Black and honey locust
Siberian elm	Mulberry
Smooth brome	Quack grass
Reed canary grass	Leafy spurge
Canada thistle	Kentucky bluegrass

P Wildlife

Goals: Preserve, restore and enhance the ecological diversity and abundance of migratory birds and other indigenous wildlife with emphasis on waterfowl, prairie grouse, and other grassland dependent birds.

In addition to implementing habitat management actions that improve and maintain the diverse native plant communities, the Service will consider and implement management regimes that meet various native bird requirements. Biological monitoring of native birds and other wildlife will increase to better document population trends and effects of management.

The following wildlife objectives are based upon unpublished Refuge data, and represent average population levels that can normally be expected to occur given the above habitat objectives. Periodic severe weather events, continental changes in migratory bird populations, and other factors can, and do, cause fluctuations in Refuge populations.

Migratory Waterfowl Objectives: Achieve an average annual breeding pair density of equal to or greater than 4,000 dabbling and 700 diving ducks with a brood/pair ratio expressed as a percent of equal to or greater than 20 percent over a five year period (unpublished Refuge data 1978-91). A brood/pair ratio is the percent of pairs that produce a brood to flight stage.

Maintain an annual breeding population of approximately 100 Canada goose pairs.

Provide approximately 11,000 acres of wetland for spring and fall migrating waterfowl.

Trumpeter swans: Cooperate with Lacreek NWR by reporting all trumpeter swan production and winter activity observed on and adjacent to Valentine NWR. Generally one and periodically two breeding pairs of swans are present on Valentine NWR.

Other Migratory Birds Objectives: Maintain and increase breeding populations of indigenous, neotropical migrants that are water-based including American bittern, white-faced ibis, black tern, marbled godwit, northern harrier and other shorebirds and wading birds that inhabit the Refuge. Establish average densities of appropriate species and an overall species richness/diversity index to document baseline levels and to determine subsequent population trends.

Maintain and increase breeding populations of land-based species of management concern such as upland sandpiper, long-billed curlew, short-eared owl, barn owl, grasshopper sparrow, dickcissel, eastern phoebe, eastern kingbird, loggerhead shrike, and eastern meadowlark (Bogan, 1995). Establish average densities of selected species and an overall species richness/diversity index to document baseline levels and to determine subsequent population trends.

Maintain and increase breeding populations of colonial nesting species (western and eared grebes, Forster's and black terns, cormorants and black-crowned night herons).

Evaluate reintroduction of breeding populations of sandhill cranes to the Nebraska Sandhills and specifically Valentine NWR.

Prairie Grouse Objectives: Maintain a five-year average density of equal to or greater than one prairie grouse lek per 1.6 sq. mi. (28 total leks including 15 prairie chicken and 13 sharp-tailed grouse) within the area designated as the State Survey Block. The Refuge surveyed each year is one part of a statewide survey of prairie chicken and sharp-tailed grouse.

Maintain annually a minimum of 35 prairie chicken leks (2.8 sq. mi. / lek) throughout Valentine NWR.

Annually achieve a minimum target sample of 350 prairie grouse wings from the Volunteer Prairie Grouse Hunter Harvest Survey. Achieve a harvest ratio of equal to or greater than 2.5 juveniles per adult. The harvest ratio measures current year nesting success and health of the population by comparing the number of young in the fall population to the number of adults. Ratios greater than or equal to 2.5 indicate a healthy population.

Other Indigenous Wildlife Species Objective: Ensure the diversity and abundance of indigenous mammals, reptiles, amphibians, fish, and invertebrates remain intact. Establish average densities of key indicator species to document baseline levels and to determine subsequent population trends.

Evaluate the suitability of habitat on the Refuge for introduction of the black-tailed prairie dog and, if suitable habitat is present, prepare a step-down management plan for introduction and management of this species.

The Service will maintain the existing furbearer harvest program, which uses trapping as a management tool to achieve Refuge wildlife objectives.

Exotic and Invading Species Objectives: Prevent the establishment of additional introduced species and refrain from carrying out management activities specifically to encourage population expansion of existing introductions (i.e., pheasants).

Reduce carp population densities in Refuge lakes.

Sport Fishery Objective: Maintain sustainable and harvestable populations of sport fish in the nine designated sport fishing lakes.

Threatened, Endangered, and Management Concern Species

Goal: Contribute to the preservation and restoration of endangered and threatened flora and fauna that occur or have historically occurred around Valentine NWR.

The Refuge staff will continue to maintain existing habitat and document endangered bird use and will conduct surveys for American burying beetles. The Refuge staff will intensify efforts to reintroduce blowout penstemon and will conduct Refuge wide surveys for it and western prairie fringed orchids. In consultation with the Service's Ecological Services staff, the Refuge staff will conduct applied research efforts to determine management practices promoting these species. The Service will maintain existing woodland, and promote regeneration of woodland habitat along lake borders that are important as bald eagle roosting sites.

Threatened and Endangered Plant Objectives:

Maintain approximately 72 acres of blowouts, with potential for the endangered blowout penstemon, on the Refuge. In a minimum of five blowouts, establish and maintain populations of 100 penstemon plants per blowout. Currently the Refuge has an estimated 72 acres of blowouts in at least a dozen locations. Three habitat units exist with very small natural populations of penstemon and three additional habitat units with nine blowouts that have had plants transplanted into them. The blowout penstemon recovery plan has an objective of maintaining ten population groups with 300 plants in each group. The Refuge, if successful in increasing its populations to the objective, would satisfy approximately 16 percent of the endangered penstemon recovery goal.

Maintain and manage a meadow habitat with potential for western prairie fringed orchids (2,000 acres) insuring an average annual population of 300 individuals in at least four locations. Currently the Refuge has an estimated population of approximately 300 plants in five known locations. Western prairie fringed orchids have been observed on private land at four other sites adjacent to the Refuge. The Refuge currently manages meadows with orchids so that plants can flower and set seed.

Threatened and Endangered Wildlife

Species Objectives: Monitor and document migration use by whooping cranes, piping plover, and least terns. Record habitats used, areas used, and durations of stay. Keep use areas free from human disturbance while individuals are present. Use by these species is so seldom that no habitat management objective or population objectives can be stated. Monitoring, documenting use, and keeping them undisturbed may at some time provide insights into ways to help these populations.

Monitor and document use by American burying beetles.

Maintain large hackberry, cottonwood, and willow trees around Refuge lakes as roost sites for migrating and wintering bald eagles. Monitor and document eagles use of habitat, roost trees, and eagle mortality. Monitoring will help in describing key locations and trees, and in documenting eagle mortality, a problem in past years. Some of these wintering locations could become nesting areas as eagle populations expand.

Species of Management Concern Objective: Maintain self sustaining populations of Blanding's and yellow mud turtles. Develop and implement strategies to reduce mortality from vehicles.

Interpretation and Recreation

Goal: Provide the public with quality opportunities to learn about and enjoy Sandhill Prairie, fish, wildlife, and history of the Refuge in a largely natural setting and in a manner compatible with the purposes for which the Refuge was established.

Interpretation, Wildlife Observation and Photography, and Environmental Education Objectives: Provide visitors with quality interpretation, environmental education, wildlife observation, and photography opportunities.

The Service will seek funds to construct a visitor contact station along Highway 83 to improve environmental education and interpretation of wildlife, cultural, and historic resources on the Refuge. A site plan that is being developed will include a concept design. The site plan will also contain suggestions for improving and upgrading existing facilities for visitors. Current facilities, wildlife observation, and photography uses will remain open.

Fishing Objective: Provide year-round fishing opportunities for warm water fish in designated lakes in a largely natural setting. Watts Lake has handicap accessibility.

The Service will continue its current sport-fishing program on nine designated fishing lakes. No additional lakes will have sport fish stocked in them.

Hunting Objective: Provide quality hunting opportunities for waterfowl, deer, prairie grouse, pheasants, dove, and coyote on portions of the Refuge.

The current Refuge hunting program will continue with the exception of 160 acres adjacent to the Hackberry Civilian Conservation Corps fire tower which will be closed to hunting. This no-hunting area will be from the west side of the George Wiseman Research Natural Area west to the county road. This Fire Tower, which is adjacent to the Wiseman Natural Area, will be enhanced to support the addition of a self-guided nature trail and interpretive observation deck on the tower.

Cultural and Paleontological Resources Objective: Conduct a cultural resource inventory and provide protection for and interpretation of Refuge cultural and paleontological resources and sites.

The Service will develop a Cultural Resource/Paleontological Management Plan. The Plan will include Refuge-wide cultural resource inventory and paleontological resource inventory strategies. It will also include increased interpretation, protection, and education about the cultural and paleontological resources on the Refuge.

Ecosystem (Partner)

Goal: Promote partnerships to preserve, restore, and enhance a diverse, healthy, and productive ecosystem of which Valentine is part.

Ecosystem Objectives/Strategies for Ft. Niobrara-Valentine NWR Complex: Support the Sandhills Management Plan through Partners for Wildlife Program to enhance wildlife habitat on private lands.

Support use of Refuges as research areas for relevant natural resource studies. Conduct applied research on management of threatened and endangered plant and animal populations.

Develop an effective outreach program that results in two wildlife habitat/public use projects completed annually with nongovernmental organizations.

Develop greater cooperation with state and local governments that result in completion of at least two projects annually. Projects are to benefit wildlife resources or to enhance public use opportunities such as fishing.

Use this Plan to help in marketing Refuge needs through grant writing and networking with other entities.

Implementation and Monitoring

Funding and Personnel

Staffing Needed to Implement This Plan

The following Staff Chart shows current staff and proposed additional staffing needed to fully implement this Plan. If all positions were filled, the Refuge Complex would be able to carry out all aspects of this Plan to a high standard. If some positions are not filled, all aspects of this Plan may not be able to be completed or those completed may be done over a longer period of time. Staffing and funding are expected to come over the 15 year life of this Plan. Positions marked with an * are shared with Fort Niobrara NWR. The new refuge operations specialist position would be responsible for the Partners For Wildlife program, Holt Creek WMA, and Tower WMA. (✓ = filled; ✗ = vacant)

Position	Current	Proposed
Refuge Manager*	✓	✓
Refuge Operations Specialist	✓	✓
Refuge Operations Specialist*	✗	✓
Outdoor Recreation Planner*	✗	✓
Law Enforcement Officer*	✓	✓
Administrative Officer*	✓	✓
Office Automation Clerk*	✓	✓
Wildlife Biologist	✓	✓
Biological Technician	✗	✓
Biological Technicians/Seasonal(2)	✗	✓
Heavy Equipment Operator*	✓	✓
Maintenance Worker	✓	✓
Maintenance Worker (2)	✗	✓
Maintenance Laborer/Seasonal (2)	✗	✓
Assistant Fire Management Officer*	✓	✓
Range Technician (Fire)	✓	✓
Firefighters/Seasonal (3)	✓	✓

Funding Needed to Implement This Plan

The Refuge currently has a large backlog of maintenance needs. The needs are recorded in a national Maintenance Management System (MMS). In 1997, under current management plans, the backlog for Valentine NWR was \$3,633,000. Most of these maintenance needs would also need to be met under the preferred or other alternatives. A synopsis of these needs is listed below:

Vehicles and Equipment	\$794,000
Fences, Windmills, Tanks	\$230,000
Water Control Structures and Dikes	\$258,000
Roads and Gates	\$790,000
Public Use Facilities	\$131,000
Buildings and Maintenance Facilities	\$672,000
Residences	\$282,000
Administrative Buildings/Facilities	<u>\$476,000</u>
TOTAL	\$3,633,000

The System uses another database, the Refuge Operating Needs System (RONS), to document proposed new projects that will implement a Plan, implement ecosystem or federally listed species goals or meet legal mandates. In 1999, the total for projects in the RONS is \$5,543,000 with annual recurring costs (including salary costs) of \$475,000. Most of this cost is associated with the need to upgrade substandard roads. A synopsis of these needs is listed below:

	Construction	First Year	Annual Recurring
Roads, parking areas/related facilities	\$4,650,000	\$358,000	\$205,000
Biological Monitoring and Studies	--	\$283,000	\$149,000
Habitat Restoration	\$115,000	\$27,000	\$ 9,000
Habitat Management	--	\$118,000	\$ 80,000
Partners for Wildlife Program	--	\$ 27,000	\$ 2,000
Resource Protection	\$ 320,000	\$275,000	\$ 30,000
Public Education and Recreation	<u>\$ 458,000</u>	<u>\$358,000</u>	<u>\$205,000</u>
TOTAL	\$5,543,000	\$1,446,000	\$680,000

The preferred alternative also proposes projects that have costs that are not included in the MMS or RONS. The total of these costs is \$1,356,000. A summary of these costs follows:

Fences	\$300,000
Carp and water control structures	\$160,000
Move headquarters to site along Highway 83	\$640,000
Wildlife projects	\$38,000
Public use projects	\$18,000
Cultural resource inventory	<u>\$200,000</u>
TOTAL	\$1,356,000

CCP Implementation and Step-down Management Plans

This section is intended to provide additional information to the Refuge Management Direction section above. Where possible, time frames are delineated, specific strategies and actions are stated, and a list of projects is presented.

The Service has traditionally used a Refuge Manual to guide field station management actions. The policy direction provided through the Manual has been used to prepare annual work schedules, budget, land management plans (i.e., prescribed fire, grazing, haying), sale of surplus animals, biological monitoring, public use, safety, and other aspects of public land management in the Refuge.

This CCP is intended as a broad umbrella plan that provides general concepts, specific wildlife and habitat objectives, federally listed species, public use, and partnership objectives. Depending on the Refuge needs, these may be very detailed or quite broad. The purpose of step-down management plans is to provide greater detail to managers to implement specific actions authorized by the CCP. Step-down management planning is the formulation of detailed plans that describe management activities necessary to implement strategies identified in this CCP. Step-down plans describe the specific management actions to be followed, "stepping down" from general goals, objectives, and strategies

Step-down plans provide a detailed assessment and strategy that is based upon and complement the Valentine NWR CCP. While many potential topics exist for step-down plans, the most critical ones include Habitat Management, Wildlife Inventory, Use and Public Use Plans. The objectives and implementation strategies in each step-down plan will dovetail with each other and the CCP.

The Refuge, within a reasonable amount of time, will prepare all the necessary Step-down Management Plans to attain the goals and objectives described in this CCP.

Habitat Management and Monitoring

A step-down Habitat Management Plan for the Refuge may include an assessment of the current status and distribution of plant communities and wildlife habitat, and a prescription and strategy for habitat management that will achieve long-term habitat, wildlife population, and ecosystem goals for the Refuge and surrounding landscape. The habitat prescription, or objectives (how much of what kind located where), will be based on: (1) Refuge resource priorities identified locally, regionally, and nationally; (2) potential contribution of a site to resource priorities (rare species/communities, other priority species, ecosystem function); and (3) historical, current, and potential plant community types for particular site in the Refuge area.

Habitat prescriptions will focus on lands already owned by the Refuge, but will also include areas approved for acquisition. Consequently, when a tract is acquired, its habitat value and management requirements will be easily integrated into the program.

The habitat objectives will be combined with an implementation strategy to produce a Habitat Management Plan. Habitat strategies will include site-specific manipulations to achieve site objectives and evaluations of the manipulations. Manipulations include standard practices of wetland, grassland, prescribed burning, moist soil and water management, and allowing natural ecosystem processes to dictate the ecological community type. The cycle time for some of the habitat management strategies is very long-term. However, many habitat management actions may be initiated immediately, if staff and dollars are available.

Under this Plan, Valentine NWR will revise its current monitoring plan. An overall Habitat Management Plan will be developed to guide all aspects of habitat management including but not limited to: annual grazing, the use of prescribed fire, prairie dog colony growth and management (should the species be introduced into the Refuge), other wildlife, and rest required by habitat for native birds.

Reduce the presence of nonnative tree species in Refuge plantations by allowing natural degeneration to occur. Future replantings/plantings will include only native tree and shrub species.

Develop and implement a monitoring program that assesses landscape and individual habitat variables such as vegetation species composition, grassland structure (density, height) and ground cover, woodland structure (percent tree, shrub, herbaceous, bare ground, canopy cover; basal area, diameter and height, age, snags), and utilization by large ungulates. Procedures will be completed annually or at three- to five-year intervals depending upon available staff and technique requirements.

Fire-funded personnel will develop and implement a fire effects monitoring program that integrates with other Refuge biological monitoring activities.

Proposed Wilderness Area

The proposed wilderness will be managed until such time as Congress may designate the area as wilderness or remove it from areas for consideration. If this area of the Refuge is designated as Wilderness by Congress, the Service will develop a step-down Wilderness Management Plan which will ensure continued compliance with the intent and statutes of the Wilderness Act and the purposes of the Refuge.

Furthermore, should the area being studied for inclusion into the Wilderness network of lands be designated by Congress as Wilderness Area, the Service will need further funding in order to comply, in full, with all the statutes of the Wilderness Act. The use of some mechanized equipment will continue in order for the Service to be able to adequately manage the habitats and resources on the wilderness area. Mechanized equipment is currently in use in this area of the Refuge to maintain fences and windmills and to move stock. While the preferred method of transportation of personnel and equipment in the proposed wilderness area is by foot or on horseback, in order for the Refuge staff, contractors, and permittees to perform their management duties, they need, and probably will continue to rely on, small ATVs and trucks as well as the tools of less impact. On the other hand, man-made structures, such as fences and windmills, will be reduced overtime but not to the extent that grassland management capabilities are reduced. Haying in the proposed wilderness will be eliminated as the need for winter feed for Texas longhorn cattle at Fort Niobrara NWR is phased out.

Due to the fast rate of spread and the likelihood that wildfires could not be contained within the proposed wilderness area, motorized equipment will continue to be used to suppress wildfires. This Plan calls for increased use of prescribed fire as a grassland management technique. Where possible, prescribed fires will be performed without the use of mechanized equipment but with fire engines standing-by outside of the proposed wilderness area in case they are needed. In most cases, the use of some mechanized equipment will be needed to complete prescribed fires. Whenever possible, small ATVs will be used instead of large fire engines. Furthermore, fire lines will be set outside of the proposed wilderness area when this is feasible.

Hunting will be allowed on the proposed wilderness area with access by foot or horseback. No use of motorized equipment by hunters will be permitted. Non-motorized, wheeled carts will continue to be allowed for transport of deer. No public fishing is proposed for the area. Search and rescue will be conducted by horseback, small ATV, or pickup truck.

Refuge staff need to access the proposed wilderness for biological monitoring and maintenance activities. Access for Refuge staff, in order of preference, will be by foot, horseback, small ATV, with occasional use of trucks. Refuge staff may need to access the proposed wilderness for noxious weed control if infestations are discovered. Preferred method of treatment will be using biological control and hand spraying with chemical.

If infestations are large, mechanized equipment may be used with first preference given to small ATVs and then the use of a tractor or pickup truck.

Yellowthroat Wildlife Management Area: The Refuge will continue managing and conserving trust resources at the Yellowthroat Wildlife Management Area formerly known as the Tower WMA. This area is located in Sections 25 and 26, T28N, R22W, Brown County, Nebraska. The area is composed of a 480-acre parcel owned in fee title by the Service and an adjacent 440 acres protected by a Farmers Home Administration Conservation Easement. Together, the 920 acres protect 153 acres of wetland and 767 acres of Sandhill Prairie, much of it restored after being cropped in the 1980's. The area is physically located 13 miles south of Ainsworth, Nebraska on Highway 7 and is accessible by prairie trail.

Grassland and wetland habitats will be managed with fire, rest, and permittee grazing under the same objectives as discussed previously for Valentine NWR. Some restoration of sandhill prairies is still needed on previously cropped areas. The major habitat goals will be to have a high quality prairie and wetland environment present for use by migratory waterfowl and other wildlife.

Portions of the tract will be open to fishing, hunting, wildlife observation, and photography in the same manner and under the same authority as Valentine NWR.

Holt Creek Wildlife Management Area: This Plan will implement the proposed exchange of the Holt Creek Wildlife Management Area for the Willow Lake property presently owned and managed by the Nebraska Game and Parks Commission. This Nebraska Game and Parks Commission land is located adjacent to Valentine NWR. The Holt Creek Wildlife Management Area is located about nine miles north of Springview, NE in section 32, T35N, R20W in Keya Paha County, Nebraska. Holt Creek flows through the 180-acre property which has a mix of woodlands and grasslands. Prior to the proposed exchange, the tract will be open to hunting, wildlife observation, and photography in the same manner, and under the same authority, as Valentine NWR. Habitat management of Holt Creek will include permittee grazing, prescribed fire and rest as long as it is managed by the Service.

Grasslands

Grazing, as a management tool, will continue on the Refuge through permittee grazing and bison when reintroduced. Present grazing permittees will retain grazing privileges as in the past. As present permittees drop from the grazing program, a bid system will be used to replace any grazing needed for grassland management.

Some windmills will continue to be retained as a water source for wildland wildfire suppression efforts.

Monitoring of fire effects on grasslands and animal distribution will be conducted by fire staff.

Additional equipment for prescribed fire work will be needed.

Fences around existing tree plantings will be removed; no new tree belts will be planted. Tree rows planted by the Civilian Conservation Corps will not be removed, replaced, or fenced.

Wetlands

Old ditches draining Refuge wetlands will be plugged.

Continue use of northern pike as a predator to control the carp.

Carp barriers will be constructed where needed and renovations conducted where possible. Restocking of Refuge wetlands and lakes will be done with native fishes. Drought and winter-kill may present opportunities for renovation and exclusion of the carp. Maintain water control structures on six lakes and build carp barriers on Marsh Lakes.

The Calf Camp water control structures will be replaced and the dike repaired so water levels in this wetland can be managed for migratory birds.

A Crissafulli pump is needed to increase water management capabilities.

Habitat Acquisition

A trade of land in fee title will be sought for the exchange of the U.S. Fish and Wildlife Service's Holt Creek Wildlife Management Area for the Nebraska Game and Parks Commission's Willow Lake Wildlife Management Area.

Trades or purchase of lands with willing landowners will be sought to reduce inholdings and straighten boundaries, and reduce boundary fencing costs.

Wildlife Management and Monitoring

Perform necessary studies and research to determine if the Refuge contains habitats that are suitable and conducive to the successful establishment of a black-tailed prairie dog colonies. If adequate habitats are found, prairie dogs will not be established in areas adjacent to Refuge boundaries. The Refuge staff will allow the growth of the prairie dog colony(ies) to a manageable size, and will use appropriate methods to control spread.

Conduct an education program to reduce turtle mortality from visitors driving Refuge trail roads and/or modify trails to ensure reduced turtle mortality.

Continue monitoring prairie grouse populations using lek counts and the hunter harvest survey.

Annually conduct the Breeding Bird Survey route at Valentine NWR.

Use point count or line transects to sample grassland, wetland, and woodland songbirds; annually conduct a colonial bird survey.

Limited trapping by Refuge staff and a public trapping program for management purposes will continue.

Conduct a sandhill crane feasibility study, and if feasible, reintroduce sandhill cranes as a nesting bird.

Waterfowl pair and brood counts will be conducted on certain Refuge lakes.

Monitor reptile, amphibian, and small mammal populations at five year intervals.

Conduct a survey to determine native fish species presence and abundance.

Maintain a sport fishery in the nine lakes presently open to fishing in cooperation with Nebraska Game and Parks Commission by using fish stocking, transfer of fish between lakes, surveys, drawdowns, renovations, brood stock, and egg harvest.

Fishery surveys using electrofishing, gill and trap nets will be done on an annual basis by the USFWS Fisheries Assistance Office.

Conduct an annual winter count of muskrat houses.

Refuge lakes and wetlands will be monitored for botulism and other diseases, dead birds picked up, and disposed of according to USFWS regulations.

Conduct American burying beetle surveys.

Continue to maintain a general observation log of bird sightings to document presence/absence, relative abundance, and use areas.

Completing the above monitoring and survey requirements will require the addition of two seasonal biological technicians.

Public Use Management and Monitoring

Prepare a site plan under contract. This site plan will include information on visitor access, interpretive themes, and locations for future developments.

The rest rooms and information area at Hackberry will be closed when alternate facilities are completed. The boat ramp at Hackberry headquarters will be closed immediately due to safety concerns.

Construct an observation platform on the Hackberry CCC fire tower, and provide a self-guiding nature trail leading from the parking area to the Hackberry CCC fire tower. Close 160 acres adjacent to this area to hunting.

Provide a self-guiding auto tour route passable in a passenger car. Cost is variable depending upon location and distance.

Maintain information kiosks/leaflet dispensers at the main Refuge entrances.

Provide one information and regulation sign at entrances and remove most of the regulation and information signs in the interior of the Refuge.

Update Refuge brochures to the new USFWS standard.

When bison are reintroduced, provide access for viewing the main bison herds in roadless areas of the Refuge through a concessionaire.

Provide blinds for viewing prairie grouse on leks.

Designate a prairie hiking trail for visitors to get to remote areas of the Refuge on foot.

Move headquarters to a location along Highway 83 and provide staffing during the week to provide information to visitors.

Fishing

Provide one improved boat ramp at all fishing lakes except Rice which will remain walk-in fishing only.

Develop one additional handicapped accessible fishing dock and parking area on the Refuge. Other accessible sites will be provided in future years.

Use of live minnows will be prohibited.

Electric motors, row, and paddle power will be allowed; gas powered motors will be prohibited.

Guiding will be allowed under a permit; a maximum of five guides will be allowed. Guides will be selected by lottery if demand exceeds supply. Guides will pay a fee of a percent of gross receipts and/or a flat fee to the Refuge.

Catch-and-release fishing tournaments by nonprofit groups will be permitted.

Taking of frogs, turtles, and minnows will not be authorized.

Size limits and catch-and-release may be used to manage northern pike for carp control and provide a trophy fishery.

The Refuge fishing leaflet will be updated to USFWS standards.

Hunting

Waterfowl, deer, prairie grouse, pheasants, dove, and coyote hunting will be allowed in designated areas of the Refuge.

Guiding will be allowed by permit with a maximum of five guides allowed. Guides will be selected by lottery if demand exceeds supply. Guides will pay a fee of a percent of gross receipts and/or a flat fee to the Refuge.

No new roads will be constructed for hunter access; some existing hunting access roads will be improved to all-weather roads as funding permits.

Hunting tournaments will not be allowed on Valentine NWR.

Dog training will not be allowed outside regular hunting seasons.

If crowding occurs or develops during hunting seasons, a permit system with drawings for permits will be instituted.

Persons charging a fee for the use of their horses to haul big game from the Refuge will be required to obtain a permit and pay a fee.

Ecosystem (Partners) Management and Monitoring

Work with Boy Scouts, Girl Scouts, 4-H, National Audubon Society, Cherry County Schools, and others to complete at least two wildlife/public use projects a year.

Contact and seek cooperation/partnership with universities regarding a paleontological inventory of the Refuge.

Continue to cooperate with NRCS on soil mapping and data digitizing of Service lands, review and comment on revised National Range and Pasture Handbook, participation in range judging contests, range condition surveys, and provide technical assistance on wildlife/wildland concerns.

Continue to cooperate with the Nebraska Game and Parks Commission on wildlife and fish surveys.

Write a minimum of three grant proposals a year to seek outside funding.

Management of Cultural and Paleontological Resources

A cultural resource and paleontological resources management plan to provide a basis for research and enactment of special regulations concerning protection of these resources on the Refuge will be prepared by the Service.

Complete a Refuge-wide cultural resource survey (under contract) and develop a management plan based on results. The history of the Civilian Conservation Corps will be interpreted at the fire tower observation platform.

Conduct a Refuge-wide paleontological inventory.

Display and interpret cultural and paleontological specimens.

Partnership Opportunities

Only with public support will the Service succeed in its mission. That support comes through outreach: fostering education, understanding, and communicating the importance of the Service commitment to protecting habitat upon which wildlife depends. Outreach includes a broad array of activities and services focused on building relationships and communication. The Service is committed to getting its message to both traditional and nontraditional groups.

The Service continues to seek opportunities to work with various conservation groups, State and local agencies, and private corporations and organizations to advance the mission of Valentine NWR. Generally, the Fort Niobrara NWR and Valentine NWR Complex will strive to combine resources with appropriate entities to expedite and carry out planning projects.

Fort Niobrara/Valentine NWR Complex staff works with the following groups: private landowners through the Partners in Wildlife Program; the Natural Resource Conservation Service in the Wetland Reserve Program; Farmers Service Agency in the easement program; Cherry County Extension in educational programs; local law enforcement; the Niobrara Council on wild and scenic river management; state, Federal, and local agricultural agencies in weed control; U.S. Forest Service; and U.S. Geological Survey.

The Refuge has formal agreements with rural fire protection districts to suppress wildfires both on and off the Refuge. Biologists from four universities regularly study reptile physiology at the Refuge. The Refuge plans grazing for, maintains the fence on, and patrols the Willow Lake Game Management Area adjacent to the Refuge. The Service works with Nebraska Game and Parks in fish stocking, fish egg collection and law enforcement. The Refuge staff works with the eight Refuge grazing permittees to manage grasslands on the Refuge using cattle.

The Service will continue its current cooperation with Nebraska Game and Parks Commission for sport fish management. Agreements in place for wildland wildfire suppression efforts and other common coordination efforts with other agencies and landowners will continue. The Refuge staff will seek to increase partnerships with other entities.

The Service will seek to develop outside funding sources and support for implementing some aspects of this Plan. Examples would be moving the subheadquarters, big game fence, and possible acquisition of several inholdings from willing sellers. Trading Holt Creek Wildlife Management Area for Willow Lake State WMA will be pursued with Nebraska Game and Parks Commission. A partnering effort in bison management will be pursued.

Partnerships require extensive time to coordinate, develop, and nurture. This must be accounted for in the development of budgets and annual work plans.

Monitoring and Evaluation

Adaptive management is a flexible approach to long-term management of biotic resources that is directed over-time by the results of ongoing monitoring activities and other information. Biological management techniques and specific objectives will be regularly evaluated in light of monitoring results and other new information. These periodic evaluations will be used over-time to adapt both the management objectives and techniques to better achieve management goals.

Monitoring is an essential component of this Plan, and specific monitoring strategies have been integrated into the goals and objectives outlined above. All habitat management activities will be monitored to assess whether the desired effect on wildlife and habitat components has been achieved. Monitoring the number of breeding pairs and the reproductive parameters of native and neotropical bird species will follow established Federal and statewide protocols, at a minimum. Baseline surveys will be established for other species of wildlife for which existing or historical numbers are not well known. It also will be important to begin studies to monitor the response of wildlife to increased public use in the form of observation and environmental education.

This Plan is designed to be effective for a 15-year period. Periodic review of the Plan will be required to ensure that established goals and objectives are being met and that the Plan is being implemented as scheduled. To assist this review process, an ongoing monitoring and evaluation program will be implemented, focusing on issues involving public use activities, wildlife-dependent recreational activities, and habitat and population management.

Monitoring of public use programs will involve the collection and compilation of visitation figures and activity levels. In addition, research and monitoring programs will be established to assess the impacts of public use activities on wildlife and wildlife habitat. The Refuge will strive to establish the collection of baseline data on all wildlife populations. This data will be used to update existing records of wildlife species using the Refuges, their habitat requirements, and seasonal use patterns. This data will also be used to evaluate the effects of public use and habitat management programs on wildlife populations.

Refuge habitat management programs will be continually monitored for positive and negative impacts on wildlife and wildlife habitat, and to determine if these management tools are helping to meet Refuge goals and objectives. Monitoring will focus on habitat changes and the associated changes in the wildlife community.

The establishment of a monitoring and evaluation program is important to support the direction of the Plan. The information gathered through this program will provide necessary data to ensure that goals and objectives established in the Plan are being met.

The Refuge has one full-time biologist who conducts biological monitoring on the Refuge with occasional assistance from other staff. The main emphasis is on grassland monitoring. Grassland transects are run each year to evaluate cover, composition, and grassland health. More than 100 photo points are taken to document long-term changes to the grassland. Techniques and information are shared with the Forest Service.

Refuge staff completes segments of statewide surveys in cooperation with the Nebraska Game and Parks Commission including sandhill crane, goose, waterfowl, turkey, deer, wintering eagle, pheasant brood, grouse brood, and prairie grouse breeding and productivity.

The Refuge maintains a weather station in cooperation with the National Weather Service at Hackberry Lake. Refuge staff read and report on U.S. Geological Survey groundwater wells at more than 30 locations on the Refuge. Both these efforts have been conducted for 60 years and yields long-term trend information. Surface water levels are also recorded for some Refuge lakes. Surveys for sharp-tailed grouse and prairie chicken are performed and used as an indicator of grassland health. In the spring, lek counts are conducted; in the fall, wing collection boxes are maintained. Part of the lek count is a State count block and this information is passed on to the Nebraska Game and Parks Commission. Wing collection from hunters is done in cooperation with the Forest Service and the Nebraska Game and Parks Commission.

Pair and brood counts for waterfowl are done on the Marsh Lakes to assess waterfowl production. Nesting success of ducks is monitored on an island in the Marsh Lakes as part of a long-term study. Colonial and marsh nesting birds are also counted in some areas of the Refuge. Monitoring for avian botulism is conducted in late summer on Refuge lakes and wetlands. An annual count of muskrat houses is done.

Fishery surveys using electrofishing, gill, and trap nets are done on Refuge lakes open to fishing on an annual basis by USFWS Fisheries Assistance Office biologists.

Surveys of the threatened western prairie fringed orchid and endangered blowout penstemon are conducted. When orchids are found, they are marked to prevent mowing them during haying operations.

Plan Amendment and Revision

This Refuge CCP is a dynamic Plan. While it will serve as a guide for overall Refuge direction, it will be adjusted to consider new and better information, ensuring that Refuge activities best serve the intended purpose for which this Refuge was established and the mission of the National Wildlife Refuge System. The CCP will be reviewed every five years, and monitored continuously to ensure the management actions developed support the goals and objectives of Valentine NWR.

This Plan will be informally reviewed by Refuge staff while preparing annual work plans and updating the Refuge Information Management System (RMIS) database. It may also be reviewed during routine inspections or programmatic evaluations. Results of the reviews may indicate a need to modify the Plan. The monitoring of objectives is an integral part of the Plan, and management activities may be modified if desired results are not achieved. If minor changes are required, the level of public involvement and associated NEPA documentation will be determined by the project leader. This CCP will be formally revised at least every 15 years.

Wilderness Management

Should the proposed wilderness area be officially designated wilderness, the Refuge will develop and implement a Wilderness Management Plan, taking into consideration wilderness values (in compliance with the Wilderness Act), Service policy, adjoining land uses, and comments and concerns expressed during public meetings.

Appendix A. Glossary

(including acronyms and abbreviations)

Adaptive Management: Refers to the process in which policy decisions are implemented within a framework of scientifically driven experiments to test predictions and assumptions inherent in management plans. Analysis of results help managers to determine whether current management should continue as is or it should be modified to achieve desired conditions.

Alternative: 1) A reasonable way to fix the identified problem or satisfy the stated need (40 CFR 1500.2); 2) Alternatives are different means of accomplishing refuge purposes and goals and contributing to the System mission (Draft Service Manual 602 FW 1.5).

ATV: All Terrain Vehicle (either 3 or 4-wheeled vehicles)

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: The use of organisms or 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 Director, will not materially interfere with or detract from the fulfillment of the mission of the 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 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.

Ecosystem Approach: Protecting or restoring the natural function, structure, and species composition of an ecosystem, recognizing that all components are interrelated.

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.

Endemic Species: Plants or animals that occur naturally in a certain region and whose distribution is relatively limited to a particular locality.

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.

Fauna: All the vertebrate and invertebrate animal species of a determined area.

Federal 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 System.

Flora: All the plant species of a determined area.

FONSI or Finding of No Significant Impact: A document prepared in compliance with the National Environmental Policy Act, supported by an environmental assessment, that briefly presents why a Federal Action will have no significant effects on the human environment and for which an Environmental Impact Statement, therefore, will not be prepared (40 CFR 1508.13).

Fragmentation: The process of reducing the size and connectivity of habitat patches.

Goal: Descriptive, open-ended, and often broad statement of desired future conditions that conveys a purpose but does not define measurable units (Draft Service Manual 620 FW 1.5).

Habitat: Suite of existing environmental conditions required by an organism for survival and reproduction. The place where an organism typically lives.

Habitat Restoration: Management emphasis designed to move ecosystems to desired conditions and processes, and/or to healthy forestlands, rangelands, and aquatic systems.

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.

Issue: Any unsettled matter that requires a management decision; e.g., a Service initiative, opportunity, resource management problem, threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition (Draft Service Manual 602 FW 1.5).

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

Mission Statement: A succinct statement of a unit's purpose and reason for being.

Mitigation: Measures designed to counteract environmental impacts or to make impacts less severe.

Monitoring: The process of collecting information to track changes of selected parameters over time.

National Wildlife Refuge (Refuge): A designated area of land or water or an interest in land or water within the 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.

Native Species: Species that normally live and thrive in a particular ecosystem.

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

NEPA: National Environmental Policy Act of 1969

No Action Alternative: An alternative under which existing management would be continued.

Non-Priority Public Uses: Any use other than a compatible wildlife-dependent recreational use.

NWR: National Wildlife Refuge

Objective: A concise statement of what will be achieved, how much will be achieved, when and where it will be achieved, and who is responsible for the work. Objectives are derived from goals and provide the basis for determining management strategies, monitoring refuge accomplishments, and evaluating the success of the strategies. Objectives should be attainable and time-specific and should be stated quantitatively to the extent possible. If objectives cannot be stated quantitatively, they may be stated qualitatively (Draft Service Manual 602 FW 1.5).

Opportunities: Potential solutions to issues.

Planning Team: A team or group of persons working together to prepare a document, such as this Comprehensive Conservation Plan. Planning teams are interdisciplinary in membership and function. Teams generally consist of a planning team leader; refuge manager and staff; biologists; staff specialists or other representatives of Service programs, ecosystems or regional offices; and other Federal and State governmental agencies as appropriate.

Plant Community: An assemblage of plant species unique in its composition; occurs in particular locations under particular influences; a reflection or integration of the environmental influences on the site – such as soils, temperature, elevation, solar radiation, slope, aspect, and rainfall; denotes a general kind of climax plant community, i.e., ponderosa pine or bunchgrass.

PILT: Payment-in-Lieu-of-Taxes

Prairie Grouse: both sharp-tailed grouse and prairie chickens.

Preferred Alternative: This is the alternative determined (by the decision maker) to best achieve the Refuge purpose, vision, and goals; contributes to the Refuge System mission, addresses the significant issues; and is consistent with principles of sound fish and wildlife management. The Service's selected alternative at the draft CCP stage.

Prescribed Fire: The skillful application of fire to natural fuels under conditions of weather, fuel moisture, soil moisture, etc., that allows confinement of the fire to a predetermined area and produces the intensity of heat and rate of spread to accomplish planned benefits to one or more objectives of habitat management, wildlife management, or hazard reduction.

Prescribed Natural Fire: A fire ignited by natural processes (usually lightning) and allowed to burn within specified parameters of fuels, weather, and topography to achieve specified resource management objectives.

Priority Public Uses: Compatible wildlife-dependent recreational uses (hunting, fishing, wildlife observation and photography, and environmental education and interpretation) are the priority general public uses of the System and shall receive priority consideration in refuge planning and management.

Proposed Action: The Service's proposed action for Comprehensive Conservation Plans is to prepare and implement the CCP.

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.

ROD or Record of Decision: A concise public record of decision prepared by the Federal agency, pursuant to the National Environmental Policy Act, that contains a statement of the decision, identification of all alternatives considered, identification of the environmentally preferable alternative, a statement as to whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted (and if not, why they were not adopted), and a summary of monitoring and enforcement where applicable for any mitigation (40 CFR 1505.2).

Refuge: short for Fort Niobrara National Wildlife Refuge

Refuge Management Information System or RMIS:

Refuge Operating Needs System or RONS: National database containing the unfunded operational needs of each refuge. Projects included are those required to implement approved plans, and meet goals, objectives, and legal mandates.

Refuge Use: Any activity on a refuge, except administrative or law enforcement activity carried out by or under the direction of an authorized Service employee.

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)

Refuge Revenue Share Program or RRSP: provides payments to counties in lieu of taxes using revenues derived from the sale of products from refuges (see Appendix G: Refuge Revenue Sharing Act of 1935, as amended (16 U.S.C. 715s) for more details).

Reserve Acres: Lands that were Public Domain lands when first withdrawn to create the Refuge.

Riparian: Refers to an area or habitat that is transitional from terrestrial to aquatic ecosystems; including streams, lakes, wet areas, and adjacent plant communities and their associated soils which have free water at or near the surface; and area whose components are directly or indirectly attributed to the influence of water; of or relating to a river; specifically applied to ecology, "riparian" describes the land immediately adjoining and directly influenced by streams. For example, riparian vegetation includes any and all plant-life growing on the land adjoining a stream and directly influenced by the stream.

Secretary: short for Secretary of Interior

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

Strategy: A specific action, tool, or technique or combination of actions, tools, and techniques used to meet refuge objectives.

Step-Down Management Plan: A plan that provides the details necessary to implement management strategies identified in the CCP (Draft Service Manual 602 FW 1.5).

Sound Professional Judgement: A finding, determination, or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of the Refuge Administration Act and other applicable laws.

Strategy: A specific action, tool, or technique or combination of actions, tools, and techniques used to meet unit objectives (Draft Service Manual 602 FW 1.5).

System or Refuge System: National Wildlife Refuge System

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 Species: Species for which the U.S. Fish and Wildlife Service has primary responsibility, including, most federally listed threatened and endangered species, anadromous fishes once they enter inland U.S. waterways, migratory birds, and certain marine mammals.

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

Vegetation Type or Habitat Type: A land classification system based upon the concept of distinct plant associations.

Vision Statement: A concise statement of the desired future condition of the planning unit, based primarily upon the System mission, specific refuge purposes, and other relevant mandates (Draft Service Manual 602 FW 1.5).

Wetland: includes lakes, marshes, temporary wetlands, fens, rivers, and creeks but not subirrigated meadows.

Wilderness Area (or Designated Wilderness Area): An area designated by the U.S. Congress to be managed as part of the National Wilderness Preservation System (Draft Service Manual 602 FW 1.5).

Wildfire: A free-burning fire requiring a suppression response; all fire other than prescribed fire that occurs on wildlands (Draft Service Manual 602 FW 1.5).

Wildland: lands characterized by natural vegetation and landscapes where man-made structures and alterations are not evident.

Wildland Fire: Every wildland fire is either a wildfire or a prescribed fire (Draft Service Manual 602 FW 1.5).

Wildlife: Wild animals and vegetation, especially animals living in a natural, undomesticated state.

Wildlife Corridor: A landscape feature that facilitates the biologically effective transport of animals between larger patches of habitat dedicated to conservation functions. Such corridors may facilitate several kinds of traffic, including frequent foraging movement, seasonal migration, or the once in a lifetime dispersal of juvenile animals. These are transition habitats and need not contain all the habitat elements required for long-term survival or reproduction of its migrants.

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 System.

Appendix B.

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Appendix C. Refuge Operating Needs System (RONS) List

64521 Valentine NWR NE
 HQ: Fort Niobrara NWR CD: NE03
 Project no.: 96004 Type: NWR District: NE,KS,CO,UT
 Main ecosystem: Platte/Kansas Rivers

Also includes work on Fort Niobrara NWR; Holt Creek WMA; Yellowthroat WMA

ACTIVITY: PUBLIC EDUCATION & RECREATION *People*

7.a. Provide Visitor Services

- MEASURES**
- 5,000 new visitors will be served
 - 100,000 existing visitors will be served
 - 100 % will support the top 6 priority public uses
 - 0 % will support non-priority public uses

TITLE: Hire and support an Outdoor Recreation Planner to serve the Complex.

DESCRIPTION:

Develop and implement updated and expanded outreach and recreation programs for Fort Niobrara and Valentine National Wildlife Refuges include staffing, training, equipment and operating costs. An outdoor recreation planner will be hired and supported to work on improving refuge public use programs. The refuges presently have issues and deficiencies in wilderness management, fee programs, visitor center displays, river use capacity, signage, education programs, leaflets, and basic access and services to the public that need to be addressed. The Complex hosts over 100,000 visitors each year who would be better served by the improvements in information and services.

FUNDS NEEDED (\$1000s):	Recurring		First Year Need
	One-Time	Base	
Construction Appropriation Costs.....	.....	.....	.....
Operations: Personnel Cost.....	.....	.....\$58	.....
Equipment Cost.....	.....\$55	.....	.....
Facility Cost.....	.....	.....	.....
Services/Supplies.....	.....	.....\$20	.....
Miscellaneous Costs.....	.....\$65	.....\$5	.....
TOTAL Operations Cost..	.....\$120	.....\$83	.....\$203

64521 Valentine NWR NE
 HQ: Fort Niobrara NWR CD: NE03
 Project no.: 96030a Type: NWR District: NE,KS,CO,UT
 Main ecosystem: Platte/Kansas Rivers

ACTIVITY: *PLANNING & ADMINISTRATION* *Gen. Admin*
 8.b General Administration

MEASURES

TITLE: Restore Maintenance Capabilities

DESCRIPTION:

This project will establish, equip, fill, and support a position (maintenance worker) to assist in maintaining facilities on Valentine NWR and Service managed easements; including buildings (offices, visitor contact points, shops, restroom), facilities (roads, trails, water control structures, public access facilities, etc). Due to decreased funding and staff, basic maintenance has decreased below minimum acceptable levels. Without this project, use of facilities will continue to be diminished due to accelerating deterioration. The 72,000 acre refuge presently has one maintenance worker assigned to it and shares one Complex position. Filling this position would be a start in bringing maintenance of refuge public use, office, roads, equipment, fences, windmills, and other habitat management facilities up to standards.

FUNDS NEEDED (\$1000s):	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	
Operations: Personnel Cost.....	.....\$43	.....\$43	
Equipment Cost.....	.....\$40		
Facility Cost.....	.....	
Services/Supplies.....	.....	.....\$10	
Miscellaneous Costs.....	.....\$32		
TOTAL Operations Cost..	.....\$115	.....\$53	.....\$168

64521 Valentine NWR NE
 HQ: Fort Niobrara NWR CD: NE03
 Project no.: 96029 Type: NWR District: NE,KS,CO,UT
 Main ecosystem: Platte/Kansas Rivers

ACTIVITY: *MONITORING & STUDIES* *Wildlife*
 I.a. Surveys & Censuses

MEASURES 6 wildlife surveys will be conducted
 0 habitat surveys will be conducted
 0 % of survey will be off-refuge

TITLE: Fully Implement Fisheries Management Program

DESCRIPTION:

Contract to conduct fisheries surveys on lakes open to public fishing on Valentine National Wildlife Refuge. The refuge fishing lakes attract about 15,000 anglers each year. The warm water fishery is noted for large bluegill and excellent northern pike fishing. Pike predation is also being used to control carp which affect lake water quality and vegetation. Surveys are needed to evaluate carp control, manage stocking in cooperation with the state, and manage size limits to produce a good sport fishery and control carp.

FUNDS NEEDED (\$1000s):	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	
Operations: Personnel Cost.....	.....	\$58	
Equipment Cost.....	\$35		
Facility Cost.....	.....	
Services/Supplies.....	\$20	\$5	
Miscellaneous Costs.....	\$64	\$5	
TOTAL Operations Cost..	\$119	\$68	\$187

64521 Valentine NWR NE
 HQ: Fort Niobrara NWR CD: NE03
 Project no.: 97002 Type: NWR District: NE,KS,CO,UT
 Main ecosystem: Platte/Kansas Rivers

Also includes work on Fort Niobrara NWR; Yellowthroat Wildlife Management Area; Holt Creek Wildlife Management Area

ACTIVITY: HABITAT MANAGEMENT *Habitat*

3.g. Pest Plant Control

- MEASURES**
- 0 acres will be treated
 - 0 acres infested by target species
 - 0 acres will be treated chemically
 - 0 acres will be treated mechanically
 - 0 acres will be treated biologically

TITLE: Enhance Noxious Weed and Invasive Plant and Animal Management Program

DESCRIPTION:

Protect native prairie and wetland; provide staffing and support to implement Integrated Pest Management program in Complex. The focus will be on the state listed noxious weeds of leafy spurge and Canada thistle and invasive species including purple loostrike, cedar, Russian olive, Kentucky bluegrass, and smooth brome grass. Work include biological, mechanical, and chemical control as needed. A complete survey of infestations will be made. Without this project, the Complex is unable to adequately address noxious weed and invasive plant management. The Sandhills prairie is one of the few areas where native grasses are still the dominant species. This program will help to maintain native prairie

FUNDS NEEDED (\$1000s):	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	
Operations: Personnel Cost.....	.....	\$16	
Equipment Cost.....	\$17		
Facility Cost.....	.....	
Services/Supplies.....	\$2	\$5	
Miscellaneous Costs.....	\$6	\$2	
TOTAL Operations Cost..	\$28	\$23	\$51

64521 Valentine NWR

NE

HQ: Fort Niobrara NWR

CD: NE03

Project no.: 97006

Type: NWR

District: NE,KS,CO,UT

Main ecosystem: Platte/Kansas Rivers

ACTIVITY: *RESOURCE PROTECTION*

People

6.e. Cultural Resource Management

MEASURES

- 1 investigations will be conducted
- 20 sites will be documented
- 0 museum property items will be maintained

TITLE: Conduct Cultural Resources Inventory at Valentine NWR

DESCRIPTION:

We will conduct Cultural Resources Inventory on Valentine NWR in support of concerns addressed in the CMP. The Refuge has numerous historic sites (CCC structures, abandoned ranches and homesteads, etc) as well as some archaeological resources. No inventory exists suitable to permit long-term planning of operations, maintenance, and development activities. Failure to complete this project will result in the inability to implement CMP or future management plans in an appropriate and economical manner.

FUNDS NEEDED (\$1000s):

	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	.....	.....
Operations: Personnel Cost.....	.....	.....	.....
Equipment Cost.....	.....	.....	.....
Facility Cost.....	.....	.....	.....
Services/Supplies.....	\$195	.....	.....
Miscellaneous Costs.....	\$23	.....	.....
TOTAL Operations Cost..	\$216	.....	\$216

64521 Valentine NWR

NE

HQ: Fort Niobrara NWR

CD: NE03

Project no.: 97008

Type: NWR

District: NE,KS,CO,UT

Main ecosystem: Platte/Kansas Rivers

ACTIVITY: *HABITAT RESTORATION*

Habitat

2.a. Wetland Restoration

MEASURES 800 refuge acres will be restored
 0 off-refuge acres will be restored

TITLE: Marsh Lakes

DESCRIPTION: ^{Water Control Structure}

Install water control facilities with carp barrier capabilities on the downstream outlet of Marsh Lakes. High water in recent years has forced the lake to erode a channel, resulting in carp infestation of the lake system. This project would enable the Service to control future infestation by carp, as well as to control water levels to maintain healthy wetlands in the three-lake complex. The Marsh Lakes wetland are the best habitat on the refuge for waterfowl, shorebirds, wading birds, and many other species. They had been carp free until recent high water years. Carp will destroy the aquatic vegetation needed for nesting and migrating birds.

FUNDS NEEDED (\$1000s):

	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	.....	.....
Operations: Personnel Cost.....	.....	.....	.....
Equipment Cost.....	.....	.....	.....
Facility Cost.....	\$100	.....	.....
Services/Supplies.....	.....	\$10	.....
Miscellaneous Costs....	\$15	\$15	.....
TOTAL Operations Cost..	\$115	\$25	\$140

64521 Valentine NWR

NE

HQ: Fort Niobrara NWR

CD: NE03

Project no.: 96027a

Type: NWR

District: NE,KS,CO,UT

Main ecosystem: Platte/Kansas Rivers

ACTIVITY: *HABITAT MANAGEMENT*

Habitat

3.c. Graze/Mow/Hay

MEASURES

- 0 new acres will be mowed/hayed
- 0 new acres will be grazed
- 0 AUMs will be supported

TITLE: Biological Monitoring

DESCRIPTION:

We will monitor invasive plants, native grassland, wetland, and riparian areas, wildlife, endangered plants, including Blowout Penstemon and Fringed Prairie Orchid. This project would provide 2 seasonal biologists and equipment to conduct field monitoring of vegetation on 71,516 acres of Valentine NWR. This project is critical to the management of the Refuge and will provide biological information necessary for overall management planning and public use. Without this project, future management decisions effecting all resources on the Refuge will be made with limited biological information.

FUNDS NEEDED (\$1000s):	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	
Operations: Personnel Cost.....	.....\$5	.....\$32	
Equipment Cost.....	.....\$40		
Facility Cost.....	.....	
Services/Supplies.....	.....	.....\$5	
Miscellaneous Costs.....	.....\$61	.....\$5	
TOTAL Operations Cost..	.....\$106	.....\$42	.....\$148

64521 Valentine NWR NE
 HQ: Fort Niobrara NWR CD: NE03
 Project no.: 96002 Type: NWR District: NE,KS,CO,UT
 Main ecosystem: Platte/Kansas Rivers

ACTIVITY: PUBLIC EDUCATION & RECREATION *People*

7.a. Provide Visitor Services

MEASURES 15,000 new visitors will be served
 5,000 existing visitors will be served
 0 % will support the top 6 priority public uses
 0 % will support non-priority public uses

TITLE: Valentine NWR Visitor Contact Station Development

DESCRIPTION:

This project proposes to enhance the Valentine NWR visitor education and orientation by constructing an unstaffed Visitor Contact Station near the center of the refuge along U. S. Highway 83. The enhancement will enable NWR to provide public education and facilitate appropriate wildlife and wild land oriented activities. Closure of the old Hackberry Headquarters office as a visitor contact point due to accessibility, combined with staff reductions, has resulted in virtually no interactive visitor contact point for the 70+ thousand acre refuge.

FUNDS NEEDED (\$1000s):	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	
Operations: Personnel Cost.....	.....	\$22	
Equipment Cost.....	\$30		
Facility Cost.....	\$105		
Services/Supplies.....	.....	\$15	
Miscellaneous Costs.....	\$14	\$5	
TOTAL Operations Cost..	\$149	\$42	\$191

64521 Valentine NWR

NE

HQ: Fort Niobrara NWR

CD: NE03

Project no.: 96014

Type: NWR

District: NE,KS,CO,UT

Main ecosystem: Platte/Kansas Rivers

ACTIVITY: *HABITAT RESTORATION**Habitat*

2.a. Wetland Restoration

MEASURES

200 refuge acres will be restored

0 off-refuge acres will be restored

TITLE: Wetland Restoration

DESCRIPTION:

Restore drained wet meadows and wetlands on Valentine NWR by plugging seven drainage ditches. Ditches were constructed prior the the Refuge's existence (pre-1930); Project will help restore historic wetlands and wetland functions on the Refuge providing more and better habitat for wildlife. At least one fen, a unique Sandhills wetland type also has drainage ditches that may be altering the hydrology. If not implemented, these wetlands will continue to deteriorate.

FUNDS NEEDED (\$1000s):

	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	
Operations: Personnel Cost.....	.....\$20	.....
Equipment Cost.....	.....\$30		
Facility Cost.....	.....	
Services/Supplies.....	.....\$10	.....\$5	
Miscellaneous Costs.....	.....\$11	.....\$3	
TOTAL Operations Cost..	.....\$71	.....\$8	.....\$79

64521 Valentine NWR NE
 HQ: Fort Niobrara NWR CD: NE03
 Project no.: 96021 Type: NWR District: NE,KS,CO,UT
 Main ecosystem: Platte/Kansas Rivers

ACTIVITY: PUBLIC EDUCATION & RECREATION

People

7.a. Provide Visitor Services

MEASURES 20,000 new visitors will be served
 5,000 existing visitors will be served
 0 % will support the top 6 priority public uses
 0 % will support non-priority public uses

TITLE: Wildlife Observation Deck

DESCRIPTION:

We will implement portion of a wildlife observation program on Valentine NWR. This project includes developing and installing a parking area, signs, trail, and wildlife observation deck on the Refuge at a site along highway 83 and nearby to a refuge wetland. Project will encourage and enhance wildlife and wild land observation on the refuge. Project would attract motorists from US highway 83 and significantly increase public education about the Service and Refuge. Presently there are only two information kiosks with limited information located along this busy road.

FUNDS NEEDED (\$1000s):	One-Time	Recurring Base	First Year Need
Construction Appropriation Costs.....	.....	.....	.....
Operations: Personnel Cost.....	.....	.....	.....
Equipment Cost.....	.....	.....	.....
Facility Cost.....	\$75	.....	.....
Services/Supplies.....	\$10	\$15	.....
Miscellaneous Costs.....	\$14	\$5	.....
TOTAL Operations Cost..	\$99	\$20	\$119

Appendix D. Maintenance Management System (MMS) List

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 89038 Project no. subelement:

Prop desc: Loader, front end - Clark Prop #: 617963

Project title: Replace 1964 Military Surplus Loader

Project desc: Replace worn out 1964 model military surplus front end loader. The loader is old, needs repairs, and it is hard to get parts for. The loader is used for road, dike, boat ramp and other maintenance tasks at both Fort Niobrara and Valentine NWRs.

Measures: Number of vehicles: 1

Cost estimate: \$132 Engineering cost included in cost est:

Cost est date: 1999 Cost est method: Vendor/List Price FY group: 2002

Backlog: \$132 FY completed: FY obligations: \$0
Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: Fair

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?
0 0 0 100 100 100 0 100

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT
0 30 30 20 0 0 0 0 10 10 100

Maint code: 780 = Agr/Const/Industrial Vehicles

Station rank: 1 Dist rank: Reg rank: 999 Nat rank: DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99001 Project no. subelement:

Prop desc: Roads, Public Prop #: 350

Project title: Watts Lake Access Roads and Parking Areas

Project desc: Renab .7 miles of road and 2 parking areas by rebuilding a grade and graveling. The road is no more than a dirt track with holes, puddles, and sand traps. The parking areas are often flooded and visitors cars get stuck. The lake is popular for sport fishing and has the only handicapped fishing dock on the refuge. The road is also used by hunters and bird watchers.

Measures: Number of roads: 1 Linear miles: .7

Cost estimate: \$114 Engineering cost included in cost est: \$17

Cost est date: 1999 Cost est method: Cost Estimating Guide FY group: 2002

Backlog: \$114 FY completed: FY obligations: \$0
Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source:

- TEA21 (Refuge Roads) Fire Contaminants
- TEA21 (Other) Quarters Supplemental
- Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: POOR

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?
 0 0 0 100 100 100 0 100

Outcomes: ES WP OMB HEC IAF SDA RW FAR PED PRC TOT
 0 0 0 0 0 0 0 10 10 80 100

Maint code: 325 = Dirt Roads

Station rank: 1 Dist rank: Reg rank: 207 Nat rank: DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

It is anticipated this project will require over one year to complete and is not suitable for Resource funding.

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99004 Project no. subelement:

Prop desc: Roads, Public Prop #: 363

Project title: Rehab West Long Lake Access Road and Parking Lots

Project desc: Rehab 1.5 mile of road by bringing up a grade and graveling. The present trail is rutted, often flooded in spots, and very rough. The 3 parking lots are often flooded. West Long Lake is a popular ice fishing lake as it is easily accessible in winter. A new boat ramp is being built. We now need a road to get to the ramp.

Measures: Number of roads: 1 Linear miles: 1.5

Cost estimate: \$209 Engineering cost included in cost est: \$31

Cost est date: 1999 Cost est method: Cost Estimating Guide FY group: 2002

Backlog: \$209 FY completed: FY obligations: \$0
Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source:
 TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: Poor

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?
 0 0 0 100 100 100 0 100

Outcomes: ES WF OMB HEC IAF SDA RW PAR PED PRC TOT
 0 0 0 0 0 0 0 10 0 90 100

Maint code: 326 = Dirt Roads

Station rank: 2 Dist rank: 999 Reg rank: 999 Nat rank:
DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

It is anticipated this project will require over one year to complete and is not suitable for Resource funding.

Updated 5/5/99

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99007 Project no. subelement: C (99007-c)

Prop desc: Hackberry Shop Office Prop #: 3

Project title: Repair Roof on Hackberry Shop/Office

Project desc: The worn asphalt shingles will be replaced with a metal roof and repairs made to the underlayment. The shingles are in poor shape and the underlayment is also poor. A new roof is needed to prolong the life of this building. The shop/office is used for office space for refuge manager, biologist, researchers, and maintenance. A metal roof will be built to add fire resistance to the building.

Measures: Number of buildings: 1

Cost estimate: \$50 Engineering cost included in cost est: \$8

Cost est date: 1999 Cost est method: Cost Estimating Guide FY group: 2002

Backlog: \$50 FY completed: FY obligations: 50
 Cumulative obligations: 50

Fund source: R - Resource Management Percent complete: 0%

Other possible fund source:

<input type="radio"/> TEA21 (Refuge Roads)	<input type="radio"/> Fire	<input type="radio"/> Contaminants
<input type="radio"/> TEA21 (Other)	<input type="radio"/> Quarters	<input type="radio"/> Supplemental
<input type="radio"/> Title V	<input type="radio"/> RecFee	<input type="radio"/> Other

Fix type: Repair/rehab Replace Remove Condition assessment: Poor

Emphasis:

CHS	CRP	CM	OI	TOT	Type:	DM	CI	TOT	Safety?	<input type="checkbox"/>
0	0	0	100	100		100	0	100		

Outcomes:

ES	WF	OMB	HEC	IAP	SDA	RW	FAR	PED	PRC	TOT
0	20	0	0	0	0	20	0	20	40	100

Maint code: 108 = Shop/Service Buildings

Station rank: 2 Dist rank: 999 Reg rank: 999 Nat rank: DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 5/6/99

RMIS - Maintenance Management System (MMS)

Record View

Station:	Valentine NWR		HQ:	FOPU Niobrara NWR							
Main ecosys:	Platte/Kansas Rivers										
Org code:	64521	State:	NE	Cong dist:	NE03						
Project no.:	99003	Project no. subelement:									
Prop desc:	Roads, Public		Prop #:	362							
Project title:	Rehab Duck Lake Access Road and Parking Lot										
Project desc:	Rehab .8 mile of road by bringing up a grade and graveling. The present trail is rutted and very rough. The parking lot is often flooded. Duck Lake is a popular lake for bass fishing. The wooded area near the lake is also an excellent birding spot.										
Measures:	Number of roads:		1	Linear miles:		.8					
Cost estimate:	\$104	Engineering cost included in cost est:	\$16								
Cost est date:	1999	Cost est method:	Cost Estimating Guide	FY group:	2002						
Backlog:	\$104	FY completed:		FY obligations:	\$0						
				Cumulative obligations:	\$0						
Fund source:	R = Resource Management			Percent complete:	0%						
Other possible fund source:	<input checked="" type="radio"/> TEA21 (Refuge Roads) <input type="radio"/> Fire <input type="radio"/> Contaminants <input type="radio"/> TEA21 (Other) <input type="radio"/> Quarters <input type="radio"/> Supplemental <input type="radio"/> Title V <input type="radio"/> RecFee <input type="radio"/> Other										
Fix type:	<input checked="" type="radio"/> Repair/rehab <input type="radio"/> Replace <input type="radio"/> Remove			Condition assessment:	POOR						
Emphasis:	CHS	CRP	CM	OI	TOT	Type:	DM	CI	TOT	Safety?	<input type="checkbox"/>
	0	0	0	100	100		100	0	100		
Outcomes:	ES	WF	OMB	HEC	IAP	SDA	RW	FAR	PED	PRC	TOT
	0	0	0	20	0	0	0	0	40	40	100
Maint code:	326 = Dirt Roads										
Station rank:	3	Dist rank:		Reg rank:	999	Nat rank:		DOI rank:	300		
RO support needs:	<input checked="" type="checkbox"/> Engineering <input checked="" type="checkbox"/> Contracting <input type="checkbox"/> Force Account <input type="checkbox"/> Hold										
Project notes:	It is anticipated this project will require over one year to complete and is not suitable for Resource funding.										
	Updated 12/17/97										

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Port Nebrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99010 Project no. subelement:

Prop desc: Water control structures Prop #: 379

Project title: Rehab Calf Camp water control structure and dike

Project desc: Repair water control structure / culvert, dike, and road crossing at outlet of Calf Camp Marsh; install new culvert, extensions, bring dike to critical grade, and resurface roadway crossing dike. The dike is badly washed, with the major public use road crossing it closed due to erosion. This project will restore the dike, and return the road to passability.

Measures: Number of structures: 1

Cost estimate: \$94 Engineering cost included in cost est: \$14

Cost est date: 1998 Cost est method: Cost Estimating Guide FY group: 2002

Backlog: \$94 FY completed: FY obligations: \$0
Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: Poor

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety? I
0 0 0 100 100 100 0 100

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT
0 50 0 0 0 0 0 0 0 50 100

Maint code: 440 = Water Control Structures

Station rank: 3 Dist rank: Reg rank: 999 Nat rank:
DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 88029 Project no. subelement: D (88029-d)

Prop desc: Water control structures Prop #: 277

Project title: Rehab Dewey Lake water control structure

Project desc: Repair water control structure at the outlet of Dewey Lake by installing large culvert extensions on the down stream side, energy dissipators, rip rap, and fill. The outlet is badly washed with old pieces of plywood being used to stabilize the earth. The culvert is on hand. The structure is used to manage water levels for fisheries and waterfowl management. Major public use road also crosses here.

Measures: Number of structures: 1

Cost estimate: \$20 Engineering cost included in cost est: \$3

Cost est date: 1998 Cost est method: Cost Estimating Guide FY group: 2002

Backlog: \$20 FY completed: FY obligations: \$0

Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source:

<input type="radio"/> TEA21 (Refuge Roads)	<input type="radio"/> Fire	<input type="radio"/> Contaminants
<input type="radio"/> TEA21 (Other)	<input type="radio"/> Quarters	<input type="radio"/> Supplemental
<input type="radio"/> Title V	<input type="radio"/> RecFee	<input type="radio"/> Other

Fix type: Repair/rehab Replace Remove Condition assessment: POOR

Emphasis:

CHS	CRP	CM	OI	TOT	Type:	DM	CI	TOT	Safety?	<input checked="" type="checkbox"/>	I
0	50	0	50	100		100	0	100			

Outcomes:

ES	WF	OMB	HEC	IAP	SDA	RW	FAR	PED	PRC	TOT
0	50	0	0	0	0	0	0	0	50	100

Maint code: 440 = Water Control Structures

Station rank: 4 Dist rank: 999 Reg rank: 999 Nat rank: 318

DOI rank: 500

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Major portions of materials were purchased in 1990 for structure extension and repair; lack of funding prevented completion of project.

Updated 5/10/99

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99002 Project no. subelement:

Prop desc: Roads, Public / Service-C Prop #: 361

Project title: Rehab Clear Lake Access Trail and Parking Lot

Project desc: Rehab 1 mile of road by bringing up a grade and graveling. The present trail is rutted, has holes that fill with water during storms, and sandy sections where visitors get stuck. Parts of the parking lot flood. Clear Lake is a very popular spot for catch and release pike fishing.

Measures: Number of roads: 1 Linear miles: 1.0

Cost estimate: \$184 Engineering cost included in cost est: \$28

Cost est date: 1999 Cost est method: Cost Estimating Guide FY group: 2002

Backlog: \$184 FY completed: FY obligations: \$0

Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source:

- TEA21 (Refuge Roads) Fire Contaminants
- TEA21 (Other) Quarters Supplemental
- Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: Poor

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?

0	0	0	100	100	100	0	100
---	---	---	-----	-----	-----	---	-----

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT

0	0	0	0	0	0	0	10	10	80	100
---	---	---	---	---	---	---	----	----	----	-----

Maint code: 326 = Dirt Roads

Station rank: 4 Dist rank: Reg rank: 999 Nat rank:

DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

It is anticipated this project will require over one year to complete and is not suitable for Resource funding.

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 89061 Project no. subelement:

Prop desc: Grader, road, Caterpillar Prop #: 621220

Project title: Replace 1962 Military Surplus Road Grader

Project desc: Replace worn and deteriorated 1962 model military surplus road grader. The grader is out dated, needs repairs, leaks fluids, is hard to get parts for, and hard to get anyone to even work on it. The grader is used to maintain 45 miles of public use roads, parking areas, boat ramps, plow snow, repair dikes, and tow other vehicles on Valentine NWR.

Measures: Number of Vehicles: 1

Cost estimate: \$144 Engineering cost included in cost est:

Cost est date: 1999 Cost est method: Vendor/List Price FY group: 2003

Backlog: \$144 FY completed: FY obligations: \$0
Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: POOR

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?
 0 0 0 100 100 100 0 100

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT
 0 20 10 20 0 0 0 0 25 25 100

Maint code: 780 = Agr/Const/Industrial Vehicles

Station rank: 5 Dist rank: Reg rank: 999 Nat rank: DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99005 Project no. subelement:

Prop desc: Roads, Public Prop #: 44

Project title: Rehab Pelican Lake Access Road and Parking Lots-Subhq to School Lake

Project desc: Rehab 6.2 mile of road and 6 parking lots by bringing up a grade and graveling. The present trail and parking are rutted, often flooded in spots, and very rough. Visitors often get stuck. Pelican Lake is a popular ice fishing lake for Master Angler bluegill. A new boat ramp is being built under cost share with state. Road also needed for wildfire control, law enforcement, emergency responses, and wildlife work.

Measures: Number of roads: 1 Linear miles: 6.2

Cost estimate: \$905 Engineering cost included in cost est: \$135

Cost est date: 1999 Cost est method: Cost Estimating Guide FY group: 9999

Backlog: \$905 FY completed: FY obligations: \$0
Cumulative obligations: \$0

Fund source: C = Construction Percent complete: 0%

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: POOR

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety? I
0 0 0 100 100 100 0 100

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT
0 5 0 0 0 0 5 10 0 80 100

Maint code: 326 = Dirt Roads

Station rank: 5 Dist rank: 999 Reg rank: 999 Nat rank:
DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 5/5/99

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 99007 Project no. subelement: A (99007-A)

Prop desc: Hackberry Barn Prop #: 5

Project title: Repair Roof on Hackberry Barn

Project desc: The worn asphalt shingles will be replaced with a metal roof and repairs made to the underlayment. The shingles are in fair shape and the underlayment is also fair. The barn is used for storage and to house a horse used in refuge wildlife program. A metal roof will be built to add fire resistance to the building.

Measures: Number of buildings: 1

Cost estimate: \$47 Engineering cost included in cost est: \$7

Cost est date: 1999 Cost est method: Cost Estimating Guide FY group: 2003

Backlog: \$47 FY completed: FY obligations: \$0

Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source:

<input type="radio"/> TEA21 (Refuge Roads)	<input type="radio"/> Fire	<input type="radio"/> Contaminants
<input type="radio"/> TEA21 (Other)	<input type="radio"/> Quarters	<input type="radio"/> Supplemental
<input type="radio"/> Title V	<input type="radio"/> RecFee	<input type="radio"/> Other

Fix type: Repair/rehab Replace Remove Condition assessment: Fair

Emphasis:

CHS	CRP	CM	OI	TOT	Type:	DM	CI	TOT	Safety?	<input type="checkbox"/>
0	0	0	100	100		100	0	100		

Outcomes:

ES	WF	OMB	HEC	IAP	SDA	RW	FAR	PED	PRC	TOT
10	20	10	20	0	10	10	0	10	10	100

Maint code: 106 = Storage Buildings

Station rank: 6 Dist rank: Reg rank: 999 Nat rank: DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/31/97

RMIS - Maintenance Management System (MMS)

Record View

Station: HQ:

Main ecosys:

Org code: State: Cong dist:

Project no.: Project no. subelement: (93006-c)

Prop desc: Prop #:

Project title:

Project desc:

Measures:

Cost estimate: Engineering cost included in cost est:

Cost est date: Cost est method: FY group:

Backlog: FY completed: Estimate FY obligations:
Cumulative obligations:

Fund source: = Resource Management Percent complete:

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment:

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT

Maint code: = Boat Launching Ramps

Station rank: Dist rank: Reg rank: Nat rank:
DOI rank:

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 5/6/99

RMIS - Maintenance Management System (MMS)

Record View

Station: Valentine NWR HQ: Fort Niobrara NWR

Main ecosys: Platte/Kansas Rivers

Org code: 64521 State: NE Cong dist: NE03

Project no.: 92007 Project no. subelement:

Prop desc: Scraper, tow type Prop #: 621116

Project title: Repair Tractor-towed Scraper

Project desc: Repair inoperable tractor-towed earth mover/scraper by replacing drive system with a hydraulic driven system and repair the paddle wheel. If operable, the unit would be very useful for road and dike maintenance at Fort Niobrara, Valentine NWRs and Yellow throat WMA; and in wetland restoration in private lands program.

Measures: Number of vehicles: 1

Cost estimate: \$17 Engineering cost included in cost est:

Cost est date: 1999 Cost est method: Contractor Quote FY group: 2003

Backlog: \$17 FY completed: FY obligations: \$0

Cumulative obligations: \$0

Fund source: R = Resource Management Percent complete: 0%

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment: POOR

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?

0	0	0	100	100	100	0	100			
ES	WF	OMB	HEC	IAP	SDA	RW	FAR	PED	PRC	TOT
0	50	0	0	0	0	0	0	25	25	100

Maint code: 780 = Agr/Const/Industrial Vehicles

Station rank: 8 Dist rank: Reg rank: 999 Nat rank: 274

DOI rank: 300

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: HQ:

Main ecosys:

Org code: State: Cong dist:

Project no.: Project no. subelement:

Prop desc: Prop #:

Project title:

Project desc:

Measures:

Cost estimate: Engineering cost included in cost est:

Cost est date: Cost est method: FY group:

Backlog: FY completed: FY obligations:
Cumulative obligations:

Fund source: = Resource Management Percent complete:

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment:

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT

Maint code: = Other Buildings

Station rank: Dist rank: Reg rank: Nat rank:
DOI rank:

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/17/97

RMIS - Maintenance Management System (MMS)

Record View

Station: HQ:

Main ecosys:

Org code: State: Cong dist:

Project no.: Project no. subelement:

Prop desc: Prop #:

Project title:

Project desc:

Measures:

Cost estimate: Engineering cost included in cost est:

Cost est date: Cost est method: FY group:

Backlog: FY completed: FY obligations:
Cumulative obligations:

Fund source: = Resource Management Percent complete:

Other possible fund source: TEA21 (Refuge Roads) Fire Contaminants
 TEA21 (Other) Quarters Supplemental
 Title V RecFee Other

Fix type: Repair/rehab Replace Remove Condition assessment:

Emphasis: CHS CRP CM OI TOT Type: DM CI TOT Safety?

Outcomes: ES WF OMB HEC IAF SDA RW FAR PED PRC TOT

Maint code: = Public Use Foot Trails/Boardwalks

Station rank: Dist rank: Reg rank: Nat rank:

DOI rank:

RO support needs: Engineering Contracting Force Account Hold

Project notes:

Updated 12/17/97

Appendix E. Compatibility Determinations

Station Name: Valentine National Wildlife Refuge

Date Established: 1935

Establishing and Acquisition Authorities:

Executive Order No. 7172 of August 14, 1935

Purposes for which Refuge was established:

established “...reserved and set apart ...as a refuge and breeding ground for migratory birds and other wildlife.”

Refuge Goals and Objectives

P Habitat Management: The Service will, based on funding, reintroduce bison to the Refuge using a phased-in approach. Bison, preferably surplus bison from Fort Niobrara NWR, would be placed in the southwest portion of the Refuge and numbers matched to the fenced area located there. As much interior fence as possible would be removed. Prescribed fire, water, and salt placement would be used to influence bison use. The program will be evaluated for at least five years for the effects on habitat and wildlife. If the evaluation determines that bison are effective in meeting the goals of the Refuge, the herd would be expanded to other areas of the Refuge Wilderness Area. Permittee grazing of cattle would be used to manage the health and vigor of the remaining Refuge grasslands. Three strategies are presented for managing bison on the Refuge. In two, the Refuge would own and manage the herd, and in the third, a private bison manager would be in charge of fence maintenance, roundup and sale, and day-to-day management of the herd according to Refuge specifications.

Another ecological force, fire, is also believed to be important. Obviously, concerns with the safety of this tool exist. Recent increases in the Service’s funding for prescribed fire and increased ability to use the tool safely, make it an appropriate time to expand the use of this tool and expand the benefit it provides to grassland ecology.

The Service will use an adaptive management strategy to implement this Plan. The primary focus will be to achieve the habitat objectives defined for migratory birds and other wildlife with domestic cattle and prescribed fires being the most significant habitat management tools.

Other aspects of the Plan are similar to the current management regime of the Refuge. These programs are largely successful, well received by the public, and no reasons exist to change them significantly. Some additional discussion on this issue is found in the Environmental Assessment in Appendix H.

Yellowthroat Wildlife Management Area: The Refuge will continue managing and conserving trust resources at the Yellowthroat Wildlife Management Area formerly known as the Tower WMA. This area is located in Sections 25 and 26, T28N, R22W, Brown County, Nebraska. The area is composed of a 480-acre parcel owned in fee title by the Service and an adjacent 440 acres protected by a Farmers Home Administration Conservation Easement. Together, the 920 acres protect 153 acres of wetland and 767 acres of Sandhill Prairie, much of it restored after being cropped in the 1980’s. The area is physically located 13 miles south of Ainsworth, Nebraska on Highway 7 and is accessible by prairie trail.

Grassland and wetland habitats will be managed with fire, rest, and permittee grazing under the same objectives as discussed previously for Valentine NWR. Some restoration of sandhill prairies is still needed on previously cropped areas. The major habitat goals will be to have a high quality prairie and wetland environment present for use by migratory waterfowl and other wildlife.

Portions of the tract will be open to fishing, hunting, wildlife observation, and photography in the same manner and under the same authority as Valentine NWR.

Holt Creek Wildlife Management Area: This Plan will implement the proposed exchange of the Holt Creek Wildlife Management Area for the Willow Lake property presently owned and managed by the Nebraska Game and Parks Commission. This Nebraska Game and Parks Commission land is located adjacent to Valentine NWR. The Holt Creek Wildlife Management Area is located about nine miles north of Springview, NE in section 32, T35N, R20W in Keya Paha County, Nebraska. Holt Creek flows through the 180-acre property which has a mix of woodlands and grasslands. Prior to the proposed exchange the tract will be open to hunting, wildlife observation, and photography in the same manner, and under the same authority, as Valentine NWR. Habitat management of Holt Creek will include permittee grazing, prescribed fire, and rest as long as it is managed by the Service.

Goal: Preserve, restore, and enhance the ecological diversity of indigenous flora of the physiographic region described as Sandhills Prairie within the Northern Great Plains.

Grassland Management

Current levels of grassland use will be maintained through grazing so that a minimum of 60 percent of the meadow areas and 55 percent of the hills are in undisturbed cover.

The use of prescribed fire will be increased to invigorate grasslands, and provide cedar control. From 1,000 to 8,000 acres could conceivably be treated annually.

Grasslands Habitat (Composition) Objective:

Preserve, restore, and enhance the diverse native floral communities so that greater than 75 percent is composed of climax species (good to excellent range condition). The following are the indicator species and composition of the desired floral community by range site (USDA Range Handbook and Potential Natural Vegetation of Nebraska - Kaul and Rolfsmeier, 1993).

Wetland Range: Eighty percent grasses (bluejoint and northern reedgrass, inland saltgrass, prairie cordgrass and foxtail barley); 15 percent grasslike plants (sedges and rushes); 5 percent forbs (saw-toothed sunflower, marsh hedge-nettle, Indian hemp dogbane, swamp milkweed, arrowhead and smartweeds).

Sub-irrigated Range: Seventy-five to 85 percent grasses (switchgrass, big bluestem, Indian grass, Scribner's panicum, prairie cord grass, inland saltgrass and purple lovegrass); 5-10 percent grasslike plants (sedges and rushes); 5-10 percent forbs (American licorice, blue verbena, purple prairie clover, stiff sunflower, nodding lady's-tresses, western ironweed, milkweeds, goldenrods, closed and downy gentians, blue lobelia, and the threatened western prairie fringed orchid); 5 percent shrubs (leadplant, willow, poison ivy, western snowberry, Arkansas and Wood's wild rose).

Sand Range: Eighty to 95 percent grasses (switchgrass, sand bluestem, little bluestem, big bluestem, Indian grass, prairie sandreed, needle-and-thread, porcupine grass, sand love grass, Canada wildrye, Scribner's panicum, western wheatgrass, prairie June grass); less than 5 percent grasslike plants (sedges); 10 percent forbs (blue verbena, bush morning glory, cudweed sagewort, blazing star, penstemons (shell-leaf, narrow beardtongue), western ragweed, bracket spiderwort, Rocky Mountain bee plant, evening primrose, prairie coneflower, silky and purple prairie clovers, gilia, ten-petal mentzelia, sunflowers, goldenrods, vetches, scurfpeas, yucca and pricklypear cactus); less than 5 percent shrubs (Arkansas and wild rose, leadplant, green sage, poison ivy, sand cherry, wild plum, chokecherry and western snowberry).

Choppy Sands Range: Eighty-five percent grasses (prairie sandreed, little bluestem, sand bluestem, blowout grass, needle-and-thread, prairie June grass, sand dropseed, sand love grass, spiny muhly, switchgrass, and blue grama); less than 5 percent grasslike plants (thread-leaf sedge); less than 10 percent forbs (bush morning glory, painted milkvetch, bracted spiderwort, western ragweed, cudweed sagewort, sunflowers, scurfpeas, yucca, pricklypear cactus and the endangered blowout penstemon); less than 5 percent shrubs (Arkansas and wild rose, green sage, poison ivy, sand cherry, wild plum, chokecherry and western snowberry).

Grassland Cover (Structure) Objective:

Annually provide diverse vegetation composition and structure with greater than 50 percent (30,930 acres) of the total grassland (61,861 acres) remaining in undisturbed cover (i.e., vegetative cover that has not been disturbed by grazing, mowing or fire during the preceding growing season through July 10 of the current year) to meet nesting, brooding, feeding and protective cover requirements of various grassland dependent wildlife species. The following combinations of cover treatment and vegetative structure are recommended for meadow and hill acreage:

Cover Treatment	Acreage (%)	VOR Ave. (Range)*
Meadow (13,106 Acres)		
Disturbed cover	~ 5,200 (~ 40%)	~ 3.0" (1-10")
1 Year Rest	~ 2,600 (~ 20%)	~ 10.0" (2-20")
2 Years+ Rest	~ 5,200 (~ 40%)	~ 12.0" (4-24")
Hills (48,755 Acres)		
Disturbed cover	~ 21,900 (~ 45%)	< 3.0" (1-10")
1 Year Rest	~ 12,200 (~ 25%)	= > 6.0" 1-16")
2 Years+ Rest	~ 14,600 (~ 30%)	= > 6.0" 1-18")

* - Visual Obstruction Readings averages are residual cover readings taken in the Fall (before the upcoming nesting season).

Wetland Management

The Service will continue to maintain water control structures and depths appropriate for sport fisheries at designated fishing lakes. Ditch plugs will be placed on ditches unnecessary for water management. The Refuge staff will conduct drawdowns and renovations of wetlands and lakes when possible to rejuvenate wetland plant productivity and diversity, and provide carp control. Sport fishing lakes may periodically be drawn down and renovated. Renovations in these cases would include restocking with appropriate mixes of sport fish species.

Wetland Habitat Objectives:

Groundwater Resources: Maintain a database on Refuge groundwater resources to ensure long-term protection of Refuge groundwater quantity and quality.

Surface Water Resources: Maintain a database on Refuge surface water resources by documenting wetland elevations for long-term protection of Refuge water supplies.

Maximize production of invertebrate (protein) and plant (carbohydrate) resources on 11,181 wetland acres to provide an appropriate food base for indigenous wildlife (migratory birds, mammals, reptiles, amphibians, fish) and enhance production on 2,650 acres of lakes for sport fishing.

Maximize food production for migratory birds by providing an unexploited food base on the following acreage of wetlands that are not designated for sport fishing:

Wetland Class	Acreage
Temporary	735
Seasonal	1,094
Semipermanent	4,636
Lakes	<u>4,716</u>
Total Acreage	11,181

Enhance food production by periodic drawdowns/renovations on the following Lakes designated for sport fishing:

Wetland	Acreage
Clear	532
Dewey	494
Duck and Rice	118
Hackberry	528
Pelican	617
Watts	173
West Long	76
Willow (Refuge)	<u>112</u>
Total	2,650

Maintain Dewey Marsh Fen and identify and maintain other fen sites which have unique vegetation and hydrology.

Indigenous Trees, Brush, and Planted Tree

Habitat Objective: Enhance the Sandhill Prairie landscape by reducing invading cedar trees while still maintaining a representative interspersed of indigenous woody vegetation per the following specific objectives.

Site specific indigenous woody vegetation

recommended targets: Maintain indigenous woody vegetation of the north facing slopes next to the south shorelines of Clear, Dewey, Hackberry, Pelican, Whitewater, Dad's and South Marsh Lakes.

Maintain indigenous willow tree and brush on the northwest-west ends of Dewey, Hackberry and Pelican Lakes and around Duck Lake.

Maintain indigenous trees in and adjacent to the Headquarters and Sub-headquarters areas.

Recommended maximum target level of composition by habitat unit: Willow occurrence and invasion on meadows and around lakes (less than 10 percent).

Cedar occurrence and invasion on meadows (less than 5 percent) and in the Sandhills (less than 5 percent).

Reduce cottonwood invasion in the northern King Flat area.

Maintain the two relic stands of quaking aspen at the west end of Watts Lake Habitat Unit (H.U. 1A) and the north side of Dewey Marsh (H.U. 3B)

Exotic and Invading Species

The Service will continue its integrated pest management program. Mechanical and some chemical control to reduce Canada thistle, invasive cool season grasses, and leafy spurge will continue. Increased efforts to reduce cedar and exotic cool-season grasses through prescribed fire will be conducted.

Exotic and Invading Species Objective: Prevent additional exotic plant species from becoming established and reduce the occurrence, frequency and stand density of existing exotic species to less than 5 percent of composition within five years. The invading and exotic species targeted by this objective include, but are not limited to:

Russian olive	Black and honey locust
Siberian elm	Mulberry
Smooth brome	Quack grass
Reed canary grass	Leafy spurge
Canada thistle	Kentucky bluegrass

Wildlife

In addition to implementing habitat management actions that improve and maintain the diverse native plant communities, the Service will consider and implement management regimes that meet various native bird requirements. Biological monitoring of native birds and other wildlife will increase to better document population trends and effects of management.

Goals: Preserve, restore and enhance the ecological diversity and abundance of migratory birds and other indigenous wildlife with emphasis on waterfowl, prairie grouse, and other grassland dependent birds.

The following wildlife objectives are based upon unpublished Refuge data, and represent average population levels that can normally be expected to occur given the above habitat objectives. Periodic severe weather events, continental changes in migratory bird populations, and other factors can, and do, cause fluctuations in Refuge populations.

Migratory Waterfowl Objectives:

Achieve an average annual breeding pair density of equal to or greater than 4,000 dabbling and 700 diving ducks with a brood/pair ratio expressed as a percent of equal to or greater than 20 percent over a five year period (unpublished Refuge data 1978-91). A brood/pair ratio is the percent of pairs that produce a brood to flight stage.

Maintain an annual breeding population of approximately 100 Canada goose pairs.

Provide approximately 11,000 acres of wetland for spring and fall migrating waterfowl.

Trumpeter swans: Cooperate with Lacreek NWR by reporting all trumpeter swan production and winter activity observed on and adjacent to Valentine NWR. Generally one and periodically two breeding pairs of swans are present on Valentine NWR.

Other Migratory Birds Objectives:

Maintain and increase breeding populations of indigenous, neotropical migrants that are water-based including American bittern, white-faced ibis, black tern, marbled godwit, northern harrier and other shorebirds and wading birds that inhabit the Refuge. Establish average densities of appropriate species and an overall species richness/diversity index to document baseline levels and to determine subsequent population trends.

Maintain and increase breeding populations of land-based species of management concern such as upland sandpiper, long-billed curlew, short-eared owl, barn owl, grasshopper sparrow, dickcissel, eastern phoebe, eastern kingbird, loggerhead shrike, and eastern meadowlark (Bogan, 1995). Establish average densities of selected species and an overall species richness/diversity index to document baseline levels and to determine subsequent population trends.

Maintain and increase breeding populations of colonial nesting species (western and eared grebes, Forster's and black terns, cormorants and black-crowned night herons).

Evaluate reintroduction of breeding populations of sandhill cranes to the Nebraska Sandhills and specifically Valentine NWR.

Prairie Grouse Objectives:

Maintain a five-year average density of equal to or greater than one prairie grouse lek per 1.6 sq. mi. (28 total leks including 15 prairie chicken and 13 sharp-tailed grouse) within the area designated as the State Survey Block. The Survey is a portion of the Refuge surveyed each year as one part of a statewide survey of prairie chicken and sharp-tailed grouse.

Maintain annually a minimum of 35 prairie chicken leks (2.8 sq. mi. / lek) throughout Valentine NWR.

Annually achieve a minimum target sample of 350 prairie grouse wings from the Volunteer Prairie Grouse Hunter Harvest Survey. Achieve a harvest ratio of equal to or greater than 2.5 juveniles per adult. The harvest ratio measures current year nesting success and health of the population by comparing the number of young in the fall population to the number of adults. Ratios greater than or equal to 2.5 indicate a healthy population.

Other Indigenous Wildlife Species Objective:

Ensure the diversity and abundance of indigenous mammals, reptiles, amphibians, fish, and invertebrates remain intact. Establish average densities of key indicator species to document baseline levels and to determine subsequent population trends.

The Service will conduct research in the interior of the Refuge to determine if suitable black-tailed prairie dog habitat exists. If suitable habitat is found in the interior of this 71,516 acre Refuge, the Service will release this species, allow them to expand to a manageable population size, and control them within the boundaries of the Refuge.

The Service will maintain the existing furbearer harvest program, which uses trapping as a management tool to achieve Refuge wildlife objectives.

Exotic and Invading Species Objectives:

Prevent the establishment of additional introduced species and refrain from carrying out management activities specifically to encourage population expansion of existing introductions (i.e., pheasants).

Reduce carp population densities in Refuge lakes.

Sport Fishery Objective:

Maintain sustainable and harvestable populations of sport fish in the nine designated sport fishing lakes.

Threatened, Endangered, and Management Concern Species

Goal: Contribute to the preservation and restoration of endangered and threatened flora and fauna that occur or have historically occurred around Valentine NWR.

The Refuge staff will continue to maintain existing habitat and document endangered bird use and will conduct surveys for American burying beetles. The Refuge staff will intensify efforts to reintroduce blowout penstemon and will conduct Refuge wide surveys for it and western prairie fringed orchids. In consultation with the Service's Ecological Services staff, the Refuge staff will conduct applied research efforts to determine management practices promoting these species. The Service will maintain existing woodland, and promote regeneration of woodland habitat along lake borders that are important as bald eagle roosting sites.

Threatened and Endangered Plant Objectives:

Maintain approximately 72 acres of blowouts, with potential for the endangered blowout penstemon, on the Refuge. In a minimum of five blowouts, establish and maintain populations of 100 penstemon plants per blowout. Currently the Refuge has an estimated 72 acres of blowouts in at least a dozen locations. Three habitat units exist with very small natural populations of penstemon and three additional habitat units with nine blowouts that have had plants transplanted into them. The blowout penstemon recovery plan has an objective of maintaining ten population groups with 300 plants in each group. The Refuge, if successful in increasing its populations to the objective, would satisfy approximately 16 percent of the endangered penstemon recovery goal.

Maintain and manage a meadow habitat with potential for western prairie fringed orchids (2,000 acres) insuring an average annual population of 300 individuals in at least four locations. Currently the Refuge has an estimated population of approximately 300 plants in five known locations. Western prairie fringed orchids have been observed on private land at four other sites adjacent to the Refuge. The Refuge currently manages meadows with orchids so that plants can flower and set seed.

Threatened and Endangered Wildlife Species Objectives:

Monitor and document migration use by whooping cranes, piping plover, and least terns. Record habitats used, areas used, and durations of stay. Keep use areas free from human disturbance while individuals are present. Use by these species is so seldom that no habitat management objective or population objectives can be stated. Monitoring, documenting use, and keeping them undisturbed may at some time provide insights into ways to help these populations.

Monitor and document use by American burying beetles.

Maintain large hackberry, cottonwood, and willow trees around Refuge lakes as roost sites for migrating and wintering bald eagles. Monitor and document eagles use of habitat, roost trees, and eagle mortality. Monitoring will help in describing key locations and trees, and in documenting eagle mortality, a problem in past years. Some of these wintering locations could become nesting areas as eagle populations expand.

Species of Management Concern Objective:

Maintain self sustaining populations of Blanding's and yellow mud turtles. Develop and implement strategies to reduce mortality from vehicles.

Interpretation and Recreation

Goal: Provide the public with quality opportunities to learn about and enjoy Sandhill Prairie, fish, wildlife, and history of the Refuge in a largely natural setting and in a manner compatible with the purposes for which the Refuge was established.

Interpretation, Wildlife Observation and Photography, and Environmental Education Objectives:

Provide visitors with quality interpretation, environmental education, wildlife observation, and photography opportunities.

The Service will seek funds to construct and staff a new environmental education/visitor center to an area along Highway 83 to improve environmental education and interpretation of wildlife, cultural, and historic resources on the Refuge. A site plan being developed will include a concept design for an environmental education/visitor center. The site plan will also contain suggestions for improving the existing visitor center until such time as a new center is constructed. Current facilities, wildlife observation, and photography uses will remain open.

Fishing Objective:

Provide year-round fishing opportunities for warm water fish in designated lakes in a largely natural setting. Watts Lake has handicap accessibility.

The Service will continue its current sport-fishing program on nine designated fishing lakes. No additional lakes will have sport fish stocked in them.

Hunting Objective:

Provide quality hunting opportunities for waterfowl, deer, prairie grouse, pheasants, dove, and coyote on portions of the Refuge.

The current Refuge hunting program will continue with the exception of 160 acres adjacent to the Hackberry Civilian Conservation Corps fire tower which will be closed to hunting. This no-hunting area will be from the west side of the George Wiseman Research Natural Area west to the county road. This Fire Tower, which is adjacent to the Wiseman Natural Area, will be enhanced to support the addition of a self-guided nature trail and interpretive observation deck on the tower.

Cultural and Paleontological Resources

Objective:

Conduct a cultural resource inventory and provide protection for and interpretation of Refuge cultural and paleontological resources and sites.

The Service will develop a Cultural Resource/ Paleontological Management Plan. The Plan will include Refuge-wide cultural resource inventory and paleontological resource inventory strategies. It will also include increased interpretation, protection, and education about the cultural and paleontological resources on the Refuge.

Ecosystem (Partner)

Goal: Promote partnerships to preserve, restore, and enhance a diverse, healthy, and productive ecosystem of which Valentine is part.

Ecosystem Objectives/Strategies for Valentine NWR:

Support the Sandhills Management Plan through Partners for Wildlife Program to enhance wildlife habitat on private lands.

Support use of Refuges as research areas for relevant natural resource studies. Conduct applied research on management of threatened and endangered plant and animal populations.

Develop an effective outreach program that results in two wildlife habitat/public use projects completed annually with nongovernmental organizations.

Develop greater cooperation with state and local governments that result in completion of at least two projects annually. Projects are to benefit area wildlife resources or enhance public use opportunities such as fish rearing in Refuge ponds.

Use this Plan to help in marketing Refuge needs through grant writing and networking with other entities.

Other Applicable Laws, Regulations and Policies:

Please refer to Appendix G. Compliance Requirements.

Description of Use:

Wildlife Observation, Wildlife Photography, Interpretation and Environmental Education

Due to the size and remote location of the Refuge, there are few accurate counts of visitors, especially those who come for these reasons. People come to the Refuge to bird-watch and enjoy the prairie. It is estimated that about 500 people visit the Refuge annually for these purposes. Blinds for observing prairie grouse are set up in the spring and are well used. The number of people coming to the Refuge for bird-watching and wildlife observation appears to be increasing.

News releases concerning Refuge activities and events are written and provided to area television, radio, and newspaper outlets. The Fort Niobrara/Valentine NWR Complex also hosts special events including the Nebraska Federal Junior Duck Stamp Contest, an annual Kids Fishing Day, annual steel shot clinic, and nature fest. Some requests for tours and educational programs are denied due to insufficient staffing.

Three informational kiosks are located at major entry points to the Refuge. The kiosks have general information, a map of the Refuge, information on managing grasslands for wildlife, and leaflet dispensers.

The Comprehensive Conservation Plan (CCP) proposes continuing with the uses as described and adds the following facilities to improve interpretation and access for visitors:

1. An observation deck on the old fire tower located near Hackberry Lake—The platform would be a wood deck with railings sitting inside the tower, approximately 25 feet above ground. A view of the Sandhills, lakes, and marshes would be provided. The plan includes a self-guided nature trail leading to the tower.
2. A self-guided auto tour route is proposed. The length and location of the tour has not been determined but will be included in a site plan now being developed. This route will interpret Refuge wildlife and habitat resources and be located on the existing road network. Some upgrading of roads will be required to allow passenger car travel.
3. A prairie hiking trail will be designated to facilitate access to remote areas of the Refuge for visitors. No actual trail construction will be required as the trail will pass through open grasslands. The trail will be marked using small sign posts. A simple map will be provided hikers.
4. A concession will be bid to conduct trail rides to view the bison herd. Total number of visits and access routes will be designated.
5. The headquarters will be moved to a location near Highway 83 to provide better access for visitors. A visitor contact station will be constructed at a location to be determined by a site plan now being developed.

Anticipated Impacts on Service Lands, Waters, or Interests:

Some disturbance to wildlife, birds and mammals, will occur in areas of the Refuge frequented by visitors. In the past, visitation for these uses has been light with an estimated 500 visits per year. It is anticipated that use will increase, particularly if better access and interpretation are offered. Increased use will result in more disturbance; however, the Refuge is remote and most of it will seldom, if ever, be visited by people interested in wildlife observation.

Construction of interpretive facilities, a new headquarters, and improved roads will result in the loss of a small amount of habitat for wildlife. Small amounts of wetlands may be lost as a result of road construction. Improved roads may increase both traffic and speeds and result in increased wildlife mortality. Road mortality of the Blanding's turtle is of special concern. This turtle is a slow reproducing species presently found near existing Refuge road systems.

Determination: Wildlife Observation, Wildlife Photography, Interpretation and Environmental Education are compatible.

The following stipulations are required to ensure compatibility:

- P wetlands will be avoided in road construction and if impacted will be mitigated with twice the acreage restored or created as the area impacted.
- P as roads are improved a speed limit of 25 mph will be instituted.
- P roads near concentrations of Blanding's turtles may be closed during nesting season for this species.
- P road construction will focus on improving some existing roads, not the construction of new routes.
- P concessionaire use for horseback tours to view the bison herd would be on a designated route and limited in number and group size.

Justification: Based upon the biological impacts presented above, it is determined that wildlife observation, wildlife photography, interpretation and environmental education within the Valentine National Wildlife Refuge will not materially interfere with or detract from the purposes for which this Refuge was established.

Although wildlife observation and other human activities have been shown to disturb wildlife and habitat, the stipulations presented and the small amount of acreage involved will result in minimal impact. One of the goals of the National Wildlife Refuge System is to provide opportunities for the public to develop an understanding and appreciation for wildlife. The four priority public uses identified in the National Wildlife Refuge System Improvement Act of 1997 will help meet that goal at the Valentine National Wildlife Refuge with minimal conflicts with the wildlife conservation mission of the Refuge System.

Description of Use: Recreational Fishing

Nine Refuge lakes (Watts, Rice, Duck, West Long, Pelican, Hackberry, Dewey, Clear, and Willow) are open to fishing year round. Fishing is also permitted at Yellowthroat Wildlife Management Area. Fishing, especially ice fishing, accounts for the majority of visits to Valentine NWR. In 1997, an estimated 7,900 visits were made for fishing. This figure is based upon limited counts of fishermen throughout the year. In 1997, ice was on the lakes for fewer than average days, resulting in a lower number of visits by ice fishermen. In heavy use years, as many as 17,000 fishermen have been logged.

Bass, perch, bluegill, muskie, saugeye, bullhead, and northern pike are present in the fishing lakes. Size limits are in effect to protect the larger northern pike needed for carp control. Minnows are prohibited on Refuge lakes to prevent the introduction of exotic fish. Gas powered boats are not allowed. Catch-and-release for bass and muskie is in effect on Watts Lake. The Refuge lakes are most noted for large bass, catch-and-release northern pike fishing, and large bluegills. Many Master Angler fish are caught each year.

The Comprehensive Conservation Plan (CCP) proposes continuing with the uses described in addition to providing one improved boat ramp at each fishing lake, except Rice, and the construction of one additional handicapped accessible fishing dock at one of the lakes. Catch and release tournaments by non-profit groups will be authorized. The requirement that fishing guides obtain a Special Use Permit will be instituted.

Anticipated Impacts on Service Lands, Waters, or Interests:

Studies have shown that fish compete for invertebrate food resources with migratory birds. Stocking and maintaining sport fish in the nine lakes open to fishing will result in a loss of food resource for migratory birds.

Fishing and other human activities cause disturbance to wildlife, both birds and mammals. Boating associated with fishing is especially detrimental to over water nesting species such as grebes and black terns.

Construction of improved roads and boat ramps will result in the loss of a small amount of habitat, including wetlands. Improved roads may increase both traffic and speeds and result in increased wildlife mortality. Road mortality of the Banding's turtle is of special concern. This turtle is a slow reproducing species that is found near existing road systems.

Determination: Fishing is compatible.

The following stipulations are required to ensure compatibility:

- P wetlands will be avoided in road construction and if impacted will be mitigated with twice the acreage restored or created as that impacted.
- P as roads are improved a speed limit of 25 mph will be instituted.
- P road construction will focus on improving some existing roads, not construction of new routes.
- P roads near concentrations of Banding's turtles may be closed during nesting season for this species.
- P to reduce wildlife disturbance, only electric motors will be allowed on boats.
- P no additional lakes will be opened to fishing.
- P carp will be controlled to increase the invertebrate food resource.
- P taking of frogs, turtles, and minnows will not be allowed as part of public fishing.
- P use of live minnows will be prohibited to prevent the introduction of additional exotic species.
- P at Yellowthroat WMA only a portion of the waters will be open to fishing during the spring, summer and fall months.

Justification: Based upon the biological impacts presented above, it is determined that recreational fishing within the Valentine National Wildlife Refuge will not materially interfere with or detract from the purposes for which this Refuge was established.

One of the goals of the National Wildlife Refuge System is to provide opportunities for public fishing. This has been identified as a priority use in the National Wildlife Refuge System Improvement Act of 1997. Fishing is part of the goal for interpretation and recreation, and the fishing objective of the Valentine National Wildlife Refuge CCP, with only minor conflicts with the wildlife conservation mission of the Refuge System.

Description of Use: Hunting

Waterfowl hunting is permitted on only a small portion of the Refuge in the area of Watts, Rice, and Duck Lakes. Seasons and limits are the same as for the State. It is estimated that about 75 visits are made by duck hunters each year.

The Refuge is open to hunting of sharp-tailed grouse and prairie chickens during the State season that runs from mid-September through December. The Refuge is a popular location for out-of-state and Nebraska hunters to pursue grouse. Grouse hunters are surveyed via wing collection boxes located on the Refuge. In 1997, 258 hunter days were recorded via the collection boxes. Not all Refuge hunters participate in the voluntary wing collection program.

The Refuge is also open to pheasant hunting during the State season from November through the end of January. An estimated 100 visits were made by pheasant hunters in 1997.

The Refuge is open to deer hunting during the nine-day Nebraska rifle deer season in November. The majority of deer hunting use takes place opening weekend. In 1997, a total of 88 white-tailed and mule deer were harvested on the Refuge. Deer are checked by refuge officers and at Nebraska Game and Parks Commission check stations. The Refuge has some of the heaviest hunting pressure of any location within designated hunting units but a quality hunt is possible.

The Refuge is also open for muzzle loader deer hunting. The season runs for three weeks in December. Hunting pressure is light. Only seven hunters were known to hunt on Valentine NWR in 1997. This form of hunting is becoming more popular as permit numbers are not limited, are statewide, and for either sex.

Archery deer hunting takes place on the Refuge from mid-September through the end of December. Few archery hunters were known to have hunted in 1997.

Coyotes can be hunted on the Refuge from December 1 through March 15. A free permit is required and can be obtained in person or by mail. The permit is in the form of a postcard that the hunter returns to the Refuge at the end of the season with harvest information. In 1996-97, 37 permits were issued.

The Comprehensive Conservation Plan (CCP) proposes continuing the hunting programs as described and adding a permit elk hunt if this species is returned to the Refuge. Hunting guides and those hauling deer will be required to obtain Special Use Permits, existing hunting access roads will be improved, but no new roads are planned. Yellowthroat Wildlife Management Area and Holt Creek Wildlife Management Area will be opened to hunting.

Anticipated Impacts on Service Lands, Waters, or Interests:

Improvement of some access roads for hunters will result in the loss of a small amount of habitat, including wetlands.

Hunters disturb non-target species and harvest target species. Species hunted on Valentine NWR and that are year-round residents (i.e. deer, grouse, and coyotes) have either maintained or increased in population over the years in the presence of hunting. The exception is ring-necked pheasants, which have declined in numbers on the Refuge and in the surrounding area. The decline in pheasant numbers can be attributed to changes in habitat and weather rather than to hunting pressure. The number of migratory birds hunted on the Refuge (ducks, geese, coots, and doves) fluctuate with continental trends rather than Refuge harvested numbers.

Determination: Hunting is compatible.

The following stipulations are required to ensure compatibility:

- P wetlands will be avoided in road construction and if impacted will be mitigated with twice the acreage restored or created as that of the area impacted.
- P as roads are improved, a speed limit of 25 mph will be instituted.
- P road construction will focus on improving some existing roads, not the construction of new routes.
- P the use of steel shot will be required for all bird hunting.
- P dog training on the Refuge will not be allowed outside of the regular hunting season.
- P harvesting data and populations of grouse will be monitored through wing collection boxes and lek counts.
- P deer harvest will be monitored in cooperation with Nebraska Game and Parks Commission.
- P any elk hunt harvested would be monitored through a check station, if a hunt is initiated.

Justification: Based upon the biological impacts presented above and in the environmental assessment contained in the CCP it is determined that hunting on the Valentine National Wildlife Refuge will not materially interfere with or detract from the purposes for which this Refuge was established.

Hunting of sharp-tailed grouse and prairie chickens was started on the Refuge in 1965. Numbers of these birds have increased in the presence of hunting. The increase is also shown in spring lek counts and is the result of changes in grassland management (mainly changes in the type of grazing and a reduction of the amount of haying and grazing done).

A recreational coyote hunt was started in 1986. Harvest of this species has fluctuated, mainly with the price of pelts. Fur prices and harvest have been low in recent years. Coyotes are still very common on the Refuge and surrounding ranch lands. Recreational coyote hunting has little or no impact on Refuge populations.

The first deer hunt was held on Valentine NWR in 1964. Since that time, white-tailed deer numbers and harvests have increased while the number of mule deer taken has remained fairly constant. White-tailed deer are common on Valentine NWR. Mule deer numbers have remained fairly constant or shown a slight decline. This has also occurred in other parts of Nebraska with speculation that the decline is due to competition with white-tailed deer and the fact that mule deer are more vulnerable to hunting.

Dove hunting was initiated on the Refuge in 1983. Few hunters visit the Refuge for dove hunting. An estimated 50 birds are harvested each year.

Ring-necked pheasant hunting started on the Refuge in 1965. No harvest records are maintained. Roosters only can be harvested in Nebraska, thus the impact of hunting on populations is minimal. Species numbers have declined on the Refuge due to weather and changes in habitat.

The first waterfowl hunt were held in 1977. Only a small portion of the Refuge is open to this hunt. About 50 hunters harvest an estimated 100 ducks each year.

Description of Use: Grazing

Cattle grazing, rest, and prescribed fire are used to manage grasslands on the Refuge. The 61,861 acres of grassland on the Refuge are divided into 327 habitat units by barbed wire and electric fences. Of this acreage, 48,755 is in hills and 13,106 in meadows. Plans are made each year to either graze, rest, or burn grasslands on the Refuge.

In 1997, a total of 34,789 acres (56 percent) of Refuge grasslands were rested. Rested grasslands are those not grazed by cattle or burned by prescribed fire. Refuge studies have shown that rested grasslands in good condition are preferred nesting cover for waterfowl and grouse. Management is also designed to maximize undisturbed cover. Undisturbed cover includes grassland that is not grazed, burned by either wild or prescribed fire, or affected by hail for the preceding year's growing season and the current year's nesting season. In 1997, 50 percent of Refuge grasslands were in undisturbed cover through June 30.

In 1997, a total of 388 acres (less than 1 percent) of grassland in seven habitat units was burned using prescribed fire. Prescribed fire is used to invigorate native grasses, reduce cedar trees in grasslands, and control invader grasses such as brome and Kentucky bluegrass. Prescribed fires are planned and conducted by the Refuge fire crew. Wildfires on the Refuge are aggressively attacked by refuge firefighters and local fire departments under cooperative agreements.

Nine permittees held annual permits to graze approximately 6,600 animal use months (AUMs) over the period from April 1, 1997, through March 30, 1998. Grazing permittees have been part of the program for many years and all own land adjacent to or nearby the Refuge. Refuge staff plan a specific program for each permittee to maintain and improve the condition of Refuge grasslands. Grazing permittees are charged at market rate for use. The cost of improvements and repairs to wells, fences, tanks, and other facilities needed for the program are paid by the permittees and the cost deducted from their final bill. In 1997, \$26,759 was spent on improvements and deducted from final billings. Deductions are also made for frequent moves of cattle and grazing treatments that differ from normal ranching practices. In 1997, a total of \$46,203 was collected from permittees and deposited in the U.S. Treasury.

The Service will, based on funding, introduce bison to the Refuge using a phased-in approach. Bison, preferably surplus bison from Fort Niobrara NWR, would be placed in the southwest portion of the Refuge and numbers matched to the fenced area located there. As much interior fence as possible would be removed. Prescribed fire, water, and salt placement would be used to influence bison use. The program will be evaluated for at least five years for the effects on habitat and wildlife. If the evaluation determines that bison are effective in meeting the goals of the Refuge, the herd would be expanded to other areas of the Refuge wilderness area. Permittee grazing of cattle would be used to manage the health and vigor of the remaining Refuge grasslands. Three strategies are presented for managing bison on the Refuge. In two, the Refuge would own and manage the herd and in the third, a private bison manager would be in charge of fence maintenance, roundup and sale, and day-to-day management of the herd according to Refuge specifications.

Anticipated Impacts on Service Lands, Waters, or Interests:

The methods and expected results for the different grazing strategies using permittee cattle are explained below.

Spring grazing treatment would take place prior to the end of May on sub-irrigated meadow sites. Cattle would be placed in designated units for more than two weeks. During this period, cattle would eat or trample almost all of the residual cover. They also overgraze and thus reduce undesirable cool season exotic grasses (Kentucky bluegrass and brome). Meadows that are hayed are also sometimes given this treatment to add fertilizer. Dramatic results occur with this treatment. Exotic cool seasons, such as Kentucky bluegrass, are suppressed and native warm season grasses, such as switch grass, increase in vigor and density. The disadvantage would be the loss of the unit for nesting in the year of treatment and a lower waterfowl nesting density the following year. Often the unit can, however, be rested for up to five years following treatment. In 1997, 30 habitat units totaling 6,099 acres (9 percent of grassland) received a spring grazing treatment and including some areas that were later hayed.

Spring short-duration grazing would be in designated units for less than two weeks during May. Generally the cattle would be in the units for 3 to 5 days. This type of grazing is generally accomplished in hilly units to stimulate growth of grasses, especially cool seasons. The short exposure times eliminate overgrazing. In 1997, 10 habitat units totaling 3,280 acres (5 percent of grassland) had spring short-duration grazing. Where possible, units grazed later in summer the previous year are grazed the following year using this treatment. This both varies treatment and reduces disturbance to nesting cover. Most units grazed with spring short-duration grazing show excellent growth by fall.

Short-duration summer grazing (SD-S) is accomplished from June 1 through September 1. Cattle are in designated units for less than two weeks. Most units are grazed from 3 to 5 days. Electric fences are used to break up larger units and to increase stock density. Most short-duration summer grazing is completed by mid-July. In 1997, 79 habitat units totaling 19,723 acres (32 percent of grassland) were short-duration summer grazed. Units grazed in this method show good growth by fall, if adequate moisture has been received. If little or no late summer rainfall is received, regrowth is less, especially in those units grazed in late July or August.

Summer grazing (S) is accomplished from June 1 through September 1, and cattle are in designated units for two weeks or longer. In 1997, no acres were summer grazed. This type of grazing would take place in larger units which have not been cross-fenced.

Fall grazing (F) is accomplished from September through November. Fall grazing can reduce mulch accumulations and add fertilization. Cattle will also graze small wetlands and leave the surrounding upland vegetation alone. (Generally the wetlands have green in them while the uplands have only cured grasses.) Grazing in wetlands recycles nutrients and provides pair habitat for ducks in the spring. Fall grazing eliminates both winter cover and nesting cover in the following year. Some units are fall grazed and then given a spring grazing treatment the following year. In 1997, six habitat units totaling 1,446 acres (2 percent of grassland) were fall grazed.

Winter grazing is accomplished from November through April. In winter grazing, cattle are fed hay in a unit. The hay is harvested on the Refuge under agreement. When the weather is harsh, the cattle feed on hay; when it is milder, cattle graze away from the hay ground. Winter feeding creates dense weed patches for several years following the treatment. These weed patches provide winter food for deer, pheasants, and other resident wildlife. Units with a history of winter grazing combined with feeding also have an excellent growth of grasses away from the feed area. Resident wildlife utilize waste grain resulting from the feeding operation. In 1997, three habitat units totaling 1,167 acres (2 percent of grassland) were winter grazed.

Grazing, using bison, would most likely be less precise than using permittee cattle due to the reduction in fenced areas and increased pasture sizes. Bison and prescribed fire have been used successfully at the nearby Niobrara Valley Preserve to meet the Preserve's goal of replicating historic conditions. Nonnative grasses, such as smooth brome and Kentucky bluegrass, could increase. The increase of these grasses will reduce the vigor of native warm season grasses preferred as nesting cover by waterfowl, grouse, and other species of grassland birds.

It is anticipated that bison activity will create a mosaic of grassland conditions, with some areas being heavily grazed and others unused. This mosaic should increase the overall diversity of the bird population on the Refuge.

Determination: Grazing is compatible.

The following stipulations are required to ensure compatibility:

- P monitoring of both habitat and wildlife to evaluate the effects of cattle grazing.
- P should bison be placed on the Refuge, a monitoring program would be instituted to determine the effects of this change on habitat and wildlife.
- P grazing in areas where threatened or endangered plants (blowout penstemon and western prairie white fringed orchid) occur will be accomplished so as not to negatively impact these plants.

Justification: Based upon the biological impacts presented above and contained in the CCP and the Environmental Assessment prepared in 1994, it is determined that grazing on the Valentine National Wildlife Refuge will not materially interfere with or detract from the purposes for which this Refuge was established.

An Environmental Assessment of Grassland Management for Valentine NWR was prepared in 1994. This assessment examined the effects of the present grassland management methods using permittee cattle. The assessment found positive effects of grazing for Refuge grasslands including increased vigor, reduction of introduced grasses, recycling of nutrients, better seedling development, and stimulation of production. Increased vigor in Refuge grasslands was found to have positive effects on Refuge wildlife, especially waterfowl and prairie grouse. Species diversity and abundance of mammals, reptile, and amphibians was found to be high with most of the species historically found in the area still present. Positive effects were found on soil and water. No effect or a positive effect was shown on threatened and endangered plants and animals.

Description of Use: Haying

Haying was accomplished on 714 acres (1 percent of grassland) of sandy, sub-irrigated, and wetland range sites and yielded 1,520 tons of hay in 1997. Haying is accomplished on a share-basis with three permittees receiving 60 percent and the Refuge 40 percent of the hay harvested. Some hay is also harvested on contract with the cost deducted from permittee grazing bills. Most meadows hayed are also grazed in the fall or spring. This adds fertilization to the meadows and improves the quality and quantity of hay produced.

Anticipated Impacts on Service Lands, Waters, or Interests:

Annual haying reduces the value of an area for nesting cover as little residual cover is present in the spring of the following year. Changes in grassland composition also occur with more cool season grasses in hayed areas. Hayed areas provide browse areas for prairie grouse, Canada geese, deer, and, on occasion, sandhill cranes. Whooping cranes have also used hayed areas. Units with a history of winter grazing combined with feeding have excellent growth of grasses away from the area where the hay is fed. Western prairie white fringed orchids are found in both hayed and non-hayed areas on the Refuge. Haying may reduce competition from grasses and benefit the orchids.

Determination: Haying is compatible.

The following stipulations are required to ensure compatibility:

- P haying will be discontinued in the proposed wilderness area as the need for winter feed for the Texas longhorn herd located at Fort Niobrara is eliminated.
- P in areas hayed where the threatened western prairie white fringed orchid occurs, orchids will be marked and not cut to assure seed production.

Justification: Based upon the biological impacts presented above and the Environmental Assessment prepared in 1994, it is determined that haying on the Valentine National Wildlife Refuge will not materially interfere with or detract from the purposes for which this Refuge was established.

Haying is used to provide browse areas for Canada geese, prairie grouse, and deer and for winter feed for the Texas Longhorn herd at Fort Niobrara National Wildlife Refuge. In some years, part of the Refuge share of hay is used for road repair and maintenance. Haying has a positive effect for some species and negatively effects some ground nesting species. It may have a positive affect for the threatened western prairie white fringed orchid.

NEPA Compliance:

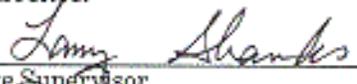
Categorical Exclusion _____
Environmental Assessment x
Environmental Impact Statement _____
FONSI _____

Signatures:

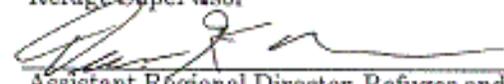
Project Leader: 
Royce R. Huber, Refuge Manager
Fort Niobrara/Valentine NWR Complex

Date: 9/30/99

Concurrence:


Refuge Supervisor

Date: 9/30/99


Assistant Regional Director, Refuges and Wildlife

Date: 9/30/99

Appendix F.

List of Animal Species at Valentine NWR

Loons

Common Loon *Gavia immer*

Grebes

Pied-billed Grebe *Podilymbus podiceps*
 Horned Grebe *Podiceps auritus*
 Eared Grebe *Podiceps nigricollis*
 Western Grebe *Aechmophorus occidentalis*
 Clark's Grebe *Aechmophorus clarkii*

Pelicans

American White Pelican *Pelecanus erythrorhynchos*
 Brown Pelican *Pelecanus occidentalis*

Cormorants

Double-crested Cormorant *Phalacrocorax auritus*

Bitterns, Herons

American Bittern *Botaurus lentiginosus*
 Least Bittern *Ixobrychus exilis*
 Great Blue Heron *Ardea herodias*
 Great Egret *Ardea alba*
 Snowy Egret *Egretta thula*
 Little Blue Heron *Egretta caerulea*
 Cattle Egret *Bubulcus ibis*
 Green Heron *Butorides virescens*
 Black-crowned Night-Heron *Nycticorax nycticorax*

Ibis, Stork

White-faced Ibis *Plegadis chihi*

Vultures

Turkey Vulture *Cathartes aura*

Geese

Greater White-fronted Goose *Anser albifrons*
 Snow Goose *Chen caerulescens*
 Canada Goose *Branta canadensis*

Swans

Trumpeter Swan *Cygnus buccinator*
 Tundra Swan *Cygnus columbianus*

Ducks

Wood Duck *Aix sponsa*
 Gadwall *Anas strepera*
 Eurasian Wigeon *Anas penelope*
 American Wigeon *Anas americana*
 American Black Duck *Anas rubripes*
 Mallard *Anas platyrhynchos*
 Blue-winged Teal *Anas discors*
 Cinnamon Teal *Anas cyanoptera*
 Northern Shoveler *Anas clypeata*
 Northern Pintail *Anas acuta*
 Green-winged Teal *Anas crecca*
 Canvasback *Aythya valisineria*
 Redhead *Aythya americana*
 Ring-necked Duck *Aythya collaris*
 Greater Scaup *Aythya marila*
 Lesser Scaup *Aythya affinis*
 Harlequin Duck *Histrionicus histrionicus*
 Bufflehead *Bucephala albeola*
 Common Goldeneye *Bucephala clangula*
 Barrow's Goldeneye *Bucephala islandica*
 Hooded Merganser *Lophodytes cucullatus*
 Common Merganser *Mergus merganser*
 Red-breasted Merganser *Mergus serrator*
 Ruddy Duck *Oxyura jamaicensis*

Hawks, Kites, Eagles

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

Falcons

American Kestrel *Falco sparverius*
 Merlin *Falco columbarius*
 Gyrfalcon *Falco rusticolus*
 Peregrine Falcon *Falco peregrinus*
 Prairie Falcon *Falco mexicanus*

Gallinaceous Birds

Gray Partridge *Perdix perdix*
 Ring-necked Pheasant *Phasianus colchicus*
 Sharp-tailed Grouse *Tympanuchus phasianellus*
 Greater Prairie-Chicken *Tympanuchus cupido*
 Wild Turkey *Meleagris gallopavo*
 Northern Bobwhite *Colinus virginianus*

Rails, Gallinules

Yellow Rail	<i>Coturnicops noveboracensis</i>
Black Rail	<i>Laterallus jamaicensis</i>
Virginia Rail	<i>Rallus limicola</i>
Sora	<i>Porzana carolina</i>
Common Moorhen	<i>Gallinula chloropus</i>
American Coot	<i>Fulica americana</i>

Cranes

Sandhill Crane	<i>Grus canadensis</i>
Whooping Crane	<i>Grus americana</i>

Plovers

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

Stilt, Avocet

American Avocet	<i>Recurvirostra americana</i>
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Sandpipers

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>
Hudsonian Godwit	<i>Limosa haemastica</i>
Marbled Godwit	<i>Limosa fedoa</i>
Ruddy Turnstone	<i>Arenaria interpres</i>
Red Knot	<i>Calidris canutus</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>
Short-billed Dowitcher	<i>Limnodromus griseus</i>
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>
Common Snipe	<i>Gallinago gallinago</i>

Phalaropes

Wilson's Phalarope	<i>Phalaropus tricolor</i>
Red-necked Phalarope	<i>Phalaropus lobatus</i>

Gulls

Franklin's Gull	<i>Larus pipixcan</i>
Bonaparte's Gull	<i>Larus philadelphus</i>
Ring-billed Gull	<i>Larus delawarensis</i>
California Gull	<i>Larus californicus</i>
Herring Gull	<i>Larus argentatus</i>

Terns

Caspian Tern	<i>Sterna caspia</i>
Common Tern	<i>Sterna hirundo</i>
Forster's Tern	<i>Sterna forsteri</i>
Least Tern	<i>Sterna antillarum</i>
Black Tern	<i>Chlidonias niger</i>

Pigeons, Doves, Parakeet

Mourning Dove	<i>Zenaida macroura</i>
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Cuckoos

Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>

Owls

Eastern Screech Owl	<i>Otus asio</i>
Great Horned Owl	<i>Bubo virginianus</i>
Snowy Owl	<i>Nyctea scandiaca</i>
Burrowing Owl	<i>Athene cunicularia</i>
Barred Owl	<i>Strix varia</i>
Long-eared Owl	<i>Asio otus</i>
Short-eared Owl	<i>Asio flammeus</i>
Northern Saw-whet Owl	<i>Aegolius acadicus</i>

Goatsucker

Common Nighthawk	<i>Chordeiles minor</i>
Poorwill	<i>Phalaenoptilus nuttallii</i>

Swifts

Chimney Swift	<i>Chaetura pelagica</i>
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Hummingbirds

Ruby-throated Hummingbird	<i>Archilochus colubris</i>
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Kingfisher

Belted Kingfisher	<i>Ceryle alcyon</i>
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Woodpeckers

Lewis' Woodpecker	<i>Melanerpes lewis</i>
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>
Red-bellied Woodpecker	<i>Melanerpes carolinus</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Northern Flicker	<i>Colaptes auratus</i>

Flycatchers

Western Wood-Pewee	<i>Contopus sordidulus</i>
Willow Flycatcher	<i>Empidonax traillii</i>
Least Flycatcher	<i>Empidonax minimus</i>
Eastern Phoebe	<i>Sayornis phoebe</i>
Say's Phoebe	<i>Sayornis saya</i>
Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>

Shrikes

Loggerhead Shrike	<i>Lanius ludovicianus</i>
Northern Shrike	<i>Lanius excubitor</i>

Vireo

Bell's Vireo	<i>Vireo bellii</i>
Warbling Vireo	<i>Vireo gilvus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>

Jays, Magpies, Crows, Ravens

Blue Jay *Cyanocitta cristata*
 Black-billed Magpie *Pica pica*
 American Crow *Corvus brachyrhynchos*

Lark

Horned Lark *Eremophila alpestris*

Swallows

Tree Swallow *Tachycineta bicolor*
 Northern Rough-winged Swallow *Stelgidopteryx serripennis*
 Bank Swallow *Riparia riparia*
 Cliff Swallow *Petrochelidon pyrrhonota*
 Barn Swallow *Hirundo rustica*

Chickadees, Titmice, Verdin, Bushtit

Black-capped Chickadee *Poecile atricapillus*

Nuthatches

Red-breasted Nuthatch *Sitta canadensis*
 White-breasted Nuthatch *Sitta carolinensis*
 Pygmy Nuthatch *Sitta pygmaea*

Creeper

Brown Creeper *Certhia americana*

Wrens, Dipper

House Wren *Troglodytes aedon*
 Winter Wren *Troglodytes troglodytes*
 Sedge Wren *Cistothorus platensis*
 Marsh Wren *Cistothorus palustris*

Kinglets

Golden-crowned Kinglet *Regulus satrapa*
 Ruby-crowned Kinglet *Regulus calendula*

Thrushes, Bluebirds

Eastern Bluebird *Sialia sialis*
 Mountain Bluebird *Sialia currucoides*
 Townsend's Solitaire *Myadestes townsendi*
 Veery *Catharus fuscescens*
 Gray-cheeked Thrush *Catharus minimus*
 Swainson's Thrush *Catharus ustulatus*
 Hermit Thrush *Catharus guttatus*
 Wood Thrush *Hylocichla mustelina*
 American Robin *Turdus migratorius*

Thrashers

Gray Catbird *Dumetella carolinensis*
 Northern Mockingbird *Mimus polyglottos*
 Brown Thrasher *Toxostoma rufum*

Starling

European Starling *Sturnus vulgaris*

Pipits

American (Water) Pipit *Anthus rubescens*

Waxwings

Bohemian Waxwing *Bombycilla garrulus*
 Cedar Waxwing *Bombycilla cedrorum*

Warblers

Blue-winged Warbler *Vermivora pinus*
 Golden-winged Warbler *Vermivora chrysoptera*
 Tennessee Warbler *Vermivora peregrina*
 Orange-crowned Warbler *Vermivora celata*
 Nashville Warbler *Vermivora ruficapilla*
 Yellow Warbler *Dendrocia petechia*
 Yellow-rumped Warbler *Dendrocia coronata*
 Black-throated Gray Warbler *Dendrocia nigrescens*
 Blackburnian Warbler *Dendrocia fusca*
 Palm Warbler *Dendrocia palmarum*
 Bay-breasted Warbler *Dendrocia castanea*
 Blackpoll Warbler *Dendrocia striata*
 Black-and-white Warbler *Mniotilta varia*
 American Redstart *Setophaga ruticilla*
 Prothonotary Warbler *Protonotaria citrea*
 Ovenbird *Seiurus aurocapillus*
 Northern Waterthrush *Seiurus aurocapillus*
 Mourning Warbler *Oporornis philadelphia*
 MacGillivray's Warbler *Oporornis tolmiei*
 Common Yellowthroat *Geothlypis trichas*
 Wilson's Warbler *Wilsonia pusilla*
 Canada Warbler *Wilsonia canadensis*
 Yellow-breasted Chat *Icteria virens*

Tanagers

Summer Tanager *Piranga rubra*
 Scarlet Tanager *Piranga olivacea*
 Western Tanager *Piranga ludoviciana*

Towhee, Sparrows

Eastern Towhee *Pipilo erythrophthalmus*
 American Tree Sparrow *Spizella arborea*
 Chipping Sparrow *Spizella passerina*
 Clay-colored Sparrow *Spizella pallida*
 Field Sparrow *Spizella pusilla*
 Vesper Sparrow *Poecetes gramineus*
 Lark Sparrow *Chondestes grammacus*
 Lark Bunting *Calamospiza melanocorys*
 Savannah Sparrow *Passerculus sandwichensis*
 Grasshopper Sparrow *Ammodramus savannarum*
 Baird's Sparrow *Ammodramus bairdii*
 Henslow's Sparrow *Ammodramus henslowii*
 Le Conte's Sparrow *Ammodramus leconteii*
 Nelson's Sharp-tailed Sparrow *Ammodramus nelsini*
 Fox Sparrow *Passerella iliaca*
 Song Sparrow *Melospiza melodia*
 Lincoln's Sparrow *Melospiza lincolni*
 Swamp Sparrow *Melospiza georgiana*
 White-throated Sparrow *Zonotrichia albicollis*
 Harris' Sparrow *Zonotrichia querula*
 White-crowned Sparrow *Zonotrichia leucophrys*
 Dark-eyed Junco *Junco hyemalis*
 McCown's Longspur *Calcarius mccownii*
 Lapland Longspur *Calcarius lapponicus*
 Chestnut-collared Longspur *Calcarius ornatus*

Grosbeaks, Buntings

Northern Cardinal	<i>Cardinalis cardinalis</i>
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>
Blue Grosbeak	<i>Guiraca caerulea</i>
Lazuli Bunting	<i>Passerina amoena</i>
Indigo Bunting	<i>Passerina cyanea</i>
Dickcissel	<i>Spiza americana</i>

Blackbirds, Orioles

Bobolink	<i>Dolichonyx oryzivorus</i>
Red-winged Blackbird	<i>Agelaius phoeniceus</i>
Eastern Meadowlark	<i>Sturnella magna</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>

Finches

Purple Finch	<i>Carpodacus purpureus</i>
House Finch	<i>Carpodacus mexicanus</i>
Red Crossbill	<i>Loxia curvirostra</i>
Common Redpoll	<i>Carduelis flammea</i>
Pine Siskin	<i>Carduelis pinus</i>
American Goldfinch	<i>Carduelis tristis</i>
Evening Grosbeak	<i>Coccothraustes vespertinus</i>

Old World Sparrow

House Sparrow	<i>Passer domesticus</i>
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Mammals:

Virginia Opossum	<i>Didelphis virginiana</i>
Masked Shrew	<i>Sorex cinereus</i>
Northern Short-tailed Shrew	<i>Blarina brevicauda</i>
Least Shrew	<i>Cryptotis parva</i>
Eastern Mole	<i>Scalopus aquaticus</i>
Western Small-footed Myotis	<i>Myotis ciliolabrum</i>
Eastern Cottontail	<i>Sylvilagus floridanus</i>
Black-tailed Jackrabbit	<i>Lepus californicus</i>
White-tailed Jackrabbit	<i>Lepus townsendii</i>
Woodchuck	<i>Marmota monax</i>
Thirteen-lined Ground Squirrel	<i>Spermophilus tridecemlineatus</i>
Eastern Fox Squirrel	<i>Sciurus niger</i>
Plains Pocket Gopher	<i>Geomys bursarius</i>
Plains Pocket Mouse	<i>Perognathus flavescens</i>
Ord's Kangaroo Rat	<i>Dipodomys ordii</i>
Beaver	<i>Castor canadensis</i>
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>
Plains Harvest Mouse	<i>Reithrodontomys montanus</i>
White-footed Mouse	<i>Peromyscus leucopus</i>
Deer Mouse	<i>Peromyscus maniculatus</i>
Northern Grasshopper Mouse	<i>Onychomys leucogaster</i>
House Mouse	<i>Mus musculus</i>
Prairie Vole	<i>Microtus ochrogaster</i>
Meadow Vole	<i>Microtus pennsylvanicus</i>
Common Muskrat	<i>Ondatra zibethicus</i>
Meadow Jumping Mouse	<i>Zapus hudsonius</i>
Common Porcupine	<i>Erethizon dorsatum</i>

Coyote	<i>Canis latrans</i>
Gray Fox	<i>Canis lupus</i>
Common Raccoon	<i>Procyon lotor</i>
Long-tailed Weasel	<i>Mustela frenata</i>
Least Weasel	<i>Mustela nivalis</i>
Mink	<i>Mustela vison</i>
American Badger	<i>Taxidea taxus</i>
Striped Skunk	<i>Mephitis mephitis</i>
Bobcat	<i>Lynx rufus</i>
Elk	<i>Cervus elaphus</i>
Mule Deer	<i>Odocoileus hemionus</i>
White-tailed Deer	<i>Odocoileus virginianus</i>
Moose	<i>Alces alces</i>
Pronghorn	<i>Antilocapra americana</i>

Amphibians and Reptiles:

Tiger Salamander	<i>Ambystoma tigrinum</i>
Woodhouse's Toad	<i>Bufo woodhousii</i>
Plains Spadefoot	<i>Spea bombifrons</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>
Painted Turtle	<i>Chrysemys picta</i>
Blanding's Turtle	<i>Emydoidea blandingii</i>
Yellow Mud Turtle	<i>Kinosternon flavescens</i>
Ornate Box Turtle	<i>Terrapene ornata</i>
Prairie Racerunner	<i>Cnemidophorus sexlineatus</i>
Lesser Earless Lizard	<i>Holbrookia maculata</i>
Many-lined Skink	<i>Eumeces multivirgatus</i>
Northern Prairie Lizard	<i>Sceloporus undulatus</i>
Eastern Yellow-bellied Racer	<i>Coluber constrictor</i>
Plains Hognose Snake	<i>Heterodon platyrinus</i>
Pale Milk Snake	<i>Lampropeltis triangulum</i>
Bullsnake	<i>Pituophis catenifer</i>
Plains Garter Snake	<i>Thamnophis radix</i>
Red-sided Garter Snake	<i>Thamnophis sirtalis</i>
Prairie Rattlesnake	<i>Crotalus viridis</i>

Appendix G. Compliance Requirements

Many procedural and substantive requirements of Federal and applicable State and local laws and regulations affect Refuge establishment, management, and development. This appendix identifies the key permits, approvals, and consultations needed to implement the strategies.

In undertaking the proposed action, the Service would comply with the following Federal laws, Executive orders, and legislative acts:

In undertaking the proposed action, the following Executive Orders and legislative acts have been or will be acted upon.

American Indian Religious Freedom Act of 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.

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

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

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

Archaeological Resources Protection Act of 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.

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

Bald and Golden Eagle Protection Act of 1940, as amended: Calls for the protection of these raptorial species on and off Federal Lands.

Clean Air Act of 1977, as amended: The primary objective of this Act is to establish Federal standards for various pollutants from both stationary and mobile sources and to provide for the regulation of polluting emissions via state implementation plans. In addition, and of special interest for National Wildlife Refuges, some amendments are designed to prevent significant deterioration in certain areas where air quality exceeds national standards, and to provide for improved air quality in areas which do not meet Federal standards ("non-attainment" areas). Federal facilities are required to comply with air quality standards to the same extent as nongovernmental entities (42 U.S.C. 7418). Part C of the 1977 amendments stipulates requirements to prevent significant deterioration of air quality and, in particular, to preserve air quality in national parks, national wilderness areas, national monuments, and national seashores (42 U.S.C. 7470).

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

Emergency Wetlands Resources Act of 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."

Endangered Species Act of 1973, as amended: Requires all Federal agencies to carry out programs for the conservation of endangered and threatened species. An Intra-Service Section 7 consultation was conducted prior to implementation of this CCP (as an appendix). No significant impact is expected from the implementation of this Plan.

Executive Order 11644, Use of Off-Road Vehicles on Public Lands.

Executive Order No. 11593, Protection and Enhancement of the Cultural Environment (1971). If the Service proposes any development activities that would affect the archaeological or historical sites, the Service will consult with Federal and State Historic Preservation Officers to comply with Section 106 of the National Historic Preservation Act of 1966, as amended.

Executive Order No. 11988, Floodplain Management. Each Federal agency shall provide leadership and take action to reduce the risk of flood loss and minimize the impact of floods on human safety, and preserve the natural and beneficial values served by the floodplains. No structures or other barriers that could either be damaged by or significantly influenced the movement of flood waters are planned for construction by the Service in the project area. This Plan supports the preservation and enhancement of the natural and beneficial values of floodplains.

Executive Order No. 11990, Protection of Wetlands. The proposal will help conserve the natural and beneficial values of the wetland habitat. The Service will undertake no activity that would be detrimental to the continuance of the vital wetlands.

Executive Order 13084, Consultation and Coordination with Indian Tribal Governments.

Executive Order No. 12372, Intergovernmental Review of Federal Programs. The State of Nebraska and counties encompassing the Refuge were sent copies of the Draft Comprehensive Conservation Plan and Environmental Assessment for distribution to State and County agencies and departments. Coordination and consultation is ongoing with local and State governments, Tribes, Congressional representatives, and other Federal agencies.

Executive Order No. 12898, Environmental Justice in Minority Populations and Low-income Populations. This environmental justice analysis concluded that the socioeconomic, cultural, physical, and biological effects of the preferred alternative (the CCP) does not predict any outcomes that would cause disproportionately high and adverse human health impacts in any population, nor would they result in disproportionately high or adverse impact to low-income or minority populations, nor would create a greater burden on low-income households.

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. Through the development of this Comprehensive Conservation Plan, the Service has completed compatibility determinations for existing wildlife-dependent recreational activities that will be allowed to continue.

Executive Order 13007 Indian Sacred Sites (1996): Directs Federal land management agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, avoid adversely affecting the physical integrity of such sacred sites, and where appropriate, maintain the confidentiality of sacred sites.

Federal Noxious Weed Act of 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.

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

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

Land and Water Conservation Fund Act of 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.

Migratory Bird Conservation Act of 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.

Migratory Bird Treaty Act of 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.

National Environmental Policy Act of 1969 (40 CFR 1500): Requires all Federal agencies to examine the impacts upon the environment that their actions might have, to incorporate the best available environmental information, and the use of public participation in the planning and implementation of all actions. All Federal agencies must integrate NEPA with other planning requirements, and prepare appropriate NEPA documentation to facilitate sound environmental decision making. NEPA requires the disclosure of the environmental impacts of any major Federal action that affects in a significant way the quality of the human environment. The process, from its inception, to prepare this Plan complied with all of NEPA requirements.

National Historic Preservation Act of 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. This Plan is in compliance with this law as the 1897 "hay barn" National Historic Building will not be affected by the implementation of the goals and objectives of this CCP.

National Trails System Act of 1968, as amended: Deals with the establishment of National Recreational Trails by the Secretaries of Interior or Agriculture on land wholly or partly within their jurisdiction, with the consent of the involved State(s), and other land managing agencies, if any. National Scenic and National Historic Trails may only be designated by an Act of Congress. The proposal contained in this Plan will not impact the 5 miles of Congressionally designated National Recreational Trail System trails that currently exist within the Refuge.

National Trails Act of 1982: Designated a portion of the Niobrara River through Fort Niobrara NWR a National Canoe Trail.

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 the preparation and implementation of 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. This Plan is in compliance with the National Wildlife Refuge System Act of 1966, as amended.

Native American Graves Protection and Repatriation Act of 1990: Requires Federal agencies and museums to inventory, determine ownership of, and repatriate cultural items under their control or possession. No known Native American cultural items are known to exist or are in possession of the Refuge.

Refuge Recreation Act of 1962, as amended: 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. This Plan is in compliance with the Refuge Recreation Act.

Refuge Revenue Sharing Act of 1935, as amended (16 U.S.C. 715s): provides for payments to counties in lieu of taxes, using revenues derived from the sale of products from refuges. Public Law 88-523 (1964) revised this Act and required that all revenues received from refuge products, such as animals, timber and minerals, or from leases or other privileges, be deposited in a special Treasury account and net receipts distributed to counties for public schools and roads. Payments to counties were established as: 1) on acquired land, the greatest amount calculated on the basis of 75 cents per acre, three-fourths of one percent of the appraised value, or 25 percent of the net receipts produced from the land; and 2) on land withdrawn from the public domain, 25 percent of net receipts and basic payments under Public Law 94-565 (31 U.S.C. 1601-1607, 90 Stat. 2662), payment in lieu of taxes on public lands. The current and proposed management of this Refuge under this Plan is in compliance with this Act.

Rehabilitation Act of 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.

Secretarial Order 3127 (602 DM 2) Contaminants and Hazardous Waste Determination. No contaminants or hazardous waste are known to exist on the Refuge and none will be created.

Wilderness Act of 1964 (Public Law 88-577 [16 U.S.C. 1131-1136]): defines wilderness as follows: "A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value."

Appendix H. NEPA Documentation

Finding of No Significant Impact and Decision Notice

A total of six management alternatives were considered during the Valentine National Wildlife Refuge Comprehensive Conservation Plan planning process. Four management alternatives for Valentine National Wildlife Refuge were assessed in detail as to their effectiveness in achieving the stated purpose of the Refuge and their impact on the human environment. Two alternatives, maximization of economic uses and placing the Refuge in custodial status, were briefly considered but discarded because they violate the National Wildlife Refuge System Improvement Act of 1997 and do not meet the mission and goals of Valentine NWR and the National Wildlife Refuge System.

Based on the analysis in the Environmental Assessment, I have selected the Modified Historical (Preferred) Alternative, with slight modifications from its draft form, to be implemented on the Refuge.

The Preferred Alternative was selected because it is most responsive to the purposes for which the Refuge was established by Congress and is preferable to other alternatives considered in light of physical, biological, economic, and social factors.

I find that the proposed action will not have a significant impact on the human environment in accordance with Section 102 of the National Environmental Policy Act and in accordance with the Service's Administrative Manual (30 AM.9B (2) (d)) and concluded that it is not necessary nor warranted to prepare an Environmental Impact Statement in order to proceed with the implementation of this Plan.

My rationale for this finding is as follows:

- The Modified Historical Alternative would not have detrimental impacts on threatened or endangered species or adversely modify their habitats.
- The Modified Historical Alternative would not adversely affect or cause damage, loss or destruction of any archaeological and/or historical resources within the Refuge.
- The Modified Historical Alternative would have long-term positive effects on public use and recreation, habitat and wildlife management, water management, fishing, hunting, and environmental education and interpretation through a balanced approach to management of all programs with benefits to both wildlife and people.
- The Modified Historical Alternative would have no negative impact on wildlife or wildlife habitats. Modifications to current public use and habitat programs are likely to reduce wildlife and wildlife habitat disturbance that will ultimately have positive consequences to Federal trust resources.
- No impact will occur on minority and low-income populations or communities.



Regional Director, Region 6
Fish and Wildlife Service
Denver, Colorado

9/30/99

Date

Summary of the Environmental Assessment

Purpose of and Need for Action

(Management of the Refuge)

Valentine NWR, located in north-central Nebraska is a unique and ecologically important component of the National Wildlife Refuge System. This Refuge was established in 1935 to provide refuge and breeding ground for migratory birds and other wildlife.

However, some uses presently occurring on the Refuge were recently evaluated for compatibility with the purpose of the Refuge. It is necessary to take action to ensure continuity of activities compatible with the Refuge's stated purpose, and modify or eliminate all activities on the Refuge that are found to be incompatible with its purposes.

The Service recognized the need for strategic planning for all the components of its System, and in September 1996, Executive Order 12996 was enacted which gave the 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 System's history, required that Comprehensive Conservation Plans be prepared for all national wildlife 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, customers, and other agencies to ensure that this Plan was relevant and truly addressed natural resource issues and public interests.

Valentine National Wildlife Refuge

Vision Statement

Valentine NWR will strive to preserve, restore, and enhance the ecological integrity of Nebraska Sandhill uplands and associated wetlands as habitat for migratory birds and other indigenous wildlife for the benefit of present and future generations of Americans.

Valentine NWR habitat management goals will seek to maintain a healthy Refuge environment that will provide opportunities for visitors to enjoy wildlife-dependent uses of the Refuge in a natural setting. Interpreting a unique habitat, wildlife, and the Refuge's historical heritage, as well as improving facilities, will enhance the visitor's experience while protecting the cultural integrity of the area. To meet these challenges, the Service will seek partnerships with other agencies, interest groups, landowners, and local communities. These efforts will result in greater protection of wildlife, fish, and plant resources throughout north-central Nebraska.

Alternatives and Impacts

Four management alternatives were analyzed in the Environmental Assessment for this Plan. Of these four, the Modified Historical (with some modifications from its draft form) is the preferred one because, in light of physical, biological, economic, and social factors, it is most responsive to the purposes for which the Refuge was established. The three other alternatives were as follows.

Alternative A. Current Management (No Action):

Continuing current management activities and public use.

- P Manage grasslands through grazing, using permittee cattle, rest, and limited prescribed fire.
- P Limited surveys and management for threatened and endangered species.
- P Control exotic plants and weeds using grazing, fire, beneficial insects, and herbicides.
- P Continue public use with hunting, fishing on the same number of lakes, and allow wildlife observation.
- P Continue cooperative agreements and partnerships in place.
- P Continue present monitoring of wildlife and habitats.

Consequences of Implementing the Current Management (No Action) Alternative

On Natural Resources: This alternative, by maintaining the current grassland management strategies, would have provided the greatest assurance that populations of waterfowl, prairie grouse, and other wildlife will be maintained. The current art and science of native grassland management to produce abundant populations of these species are as well developed on Valentine NWR as anywhere in the country. Quantities of undisturbed and rested cover are near ideal for maximum output of migratory birds and native prairie wildlife.

This abundance has been achieved by fine-tuning grassland management through placement of more than 327 fenced habitat units to enable specific management practices on small targeted areas. The Refuge has achieved considerable success in providing tall warm-season grass cover over most of the Refuge. A mosaic of grassland heights provides a diversity of bird and wildlife use.

On Cultural and Paleontological Resources:

This alternative maintains the current information base and minimum interpretation of prehistoric and historic resources. The Refuge has not had funds to conduct a cultural survey of the Refuge. Cultural and paleontological resources would have no additional protection or interpretation under current management.

On Public Use: This alternative maintains the existing public uses on the Refuge. It, therefore, has the least impact on Refuge users because they know what the existing recreational opportunities are. This alternative provides for approximately 8,000 to 17,000 fishing visits on the Refuge, and 1,500 to 3,000 hunting and wildlife observation and photography visits.

As none of these public uses are controlled other than by area, it is believed that this level of use satisfies current demand for these activities. This alternative does not allow increased effort on providing environmental education activities, increased interpretation, and the public greater access to Refuge staff.

On Socio-Economic Conditions: This alternative maintains the current management regime and, therefore, the current amount of economic use of the Refuge would be maintained.

This alternative does not increase infrastructure investment in the Refuge, nor does it increase the staffing level on the Refuge. The lack of these increases does not take anything away from the local economy. It also does not add any extra opportunities. The multiplier effect of these changes through the economy would, therefore, also not occur.

By maintaining public use at existing levels, the current tourism boost to the local economy from the Refuge remains the same.

The use of prescribed fire may cause concern for local residents over the consequences of a prescribed burn that escapes containment and becomes a wildfire that burns off the Refuge onto adjacent private land. The Refuge fire program will continue to minimize the risk of escapes by adhering to Service policy which requires that a prescribed burn plan be approved before any prescribed burning takes place. The burn plan addresses the potential for escape and specifies the personnel and equipment needed, weather requirements, contingency plans, and many other aspects of the burn to ensure it stays within prescription. Additional personnel and equipment that is necessary to conduct prescribed burns will benefit the community by being available to assist local rural fire departments in the suppression of lightning and human caused wildfires that occur in the local area.

Other public use activities which include wildlife/wildland observation, environmental education/interpretation, and fishing will continue but not be improved or expanded.

Alternative B. Historical: Manage Refuge habitats and wildlife to replicate pre-settlement conditions.

- P Introduce a herd of 500 bison to the Refuge as a habitat management tool.
- P Remove, overtime, permittee cattle (phase out).
- P Increase use of prescribed fire to replicate naturally occurring fire frequency.
- P Remove water control structures and return lakes to natural levels.
- P Monitor and study threatened and endangered species to determine effects of historic management.
- P Control exotic plants using increased prescribed fire along with beneficial insects and herbicides.
- P Establish prairie dog colonies.
- P Continue current hunting programs and initiate a bison hunt.
- P Increase number of lakes open to fishing but won't manage water levels for sport fisheries.
- P Seek a concession to access the bison herd and increase emphasis on interpretation of historical ecology.
- P Continue current cooperative agreements and seek partnerships in bison management.
- P Increase monitoring of the bison herd as well as fire effects and wildlife trends.

Consequences of Implementing the Historical Alternative

On Natural Resources: This alternative changes the current grassland management of the Refuge from an intensive holistic short duration/high intensity regime using permittee cattle to a more natural regime utilizing bison, a native herbivore. Up to 500 head of bison utilizing approximately 7,200 AUMs, when the Refuge is fully fenced, would replace eight permittee herds grazing approximately 6,600 AUMs primarily during spring and summer months. To accomplish this, a bison proof electric fence would need to be constructed on the outside boundary of the Refuge, and nearly all interior fences would be removed. No haying would be conducted on Valentine NWR under this alternative.

Prescribed fire activities will increase to provide cedar control, to influence bison use areas by providing more nutritious and palatable regrowth that is very successful in influencing their feeding areas, and to invigorate grasslands in areas that receive almost no grazing use.

The impact on prairie grouse, migratory waterfowl, and other migratory birds differs from species to species and will depend upon the degree of use of the Refuge by bison. By controlling bison numbers, the Refuge staff will be able to maintain nearly the same level of forage removal as with domestic cattle. Interspecific competition for breeding areas between bison and waterfowl and prairie grouse will probably occur. During their breeding season, birds generally avoid large animal use areas. It is believed that the areas utilized by the bison herd(s) during the summer months will represent only a small portion of the Refuge; thus, the overall bird productivity will be only slightly affected, and the grassland objectives of rest and undisturbed cover will continue to be achieved.

Because of the mosaic of grassland conditions that bison will provide, it is anticipated that migratory bird use may increase. Some species that are adapted to open, short grazed areas, such as shorebirds, will increase during migration and breeding periods. This alternative also calls for introduction of prairie dogs to the Refuge. Prairie dogs and their associated burrows and short grass environments provide a diverse habitat for prairie mammals, reptiles, birds, and insects.

This alternative would lower artificially high water levels by removing water control structures in some larger lakes on the Refuge. These lakes are currently being used for sport fishery management and would continue to be so. The lower, natural lake levels would increase the vulnerability of the fish species to winter-kill. Eventually, those lakes with minimal depths would lose sport fishery capability.

On Cultural and Paleontological Resources:

This alternative would seek to increase historical and prehistoric interpretation on the Refuge. This would most likely be provided by interpretation of overlooks such as the fire tower platform and other historic sites.

This alternative would not provide for a cultural survey on the Refuge, nor help cultural and historic interpretation through relocation of the headquarters to a site along Highway 83.

On Public Use: This alternative would affect existing public use in several ways. Currently, the major public use activity is fishing. This alternative would continue the number of lakes people can fish in. It would also allow removal of water control structures on fishing lakes, thereby lowering the lake's water level. If lakes then winter-killed, fishing opportunities would decrease. Overall, fishing success would probably decrease under this alternative, thus ultimately reducing this use on the Refuge. Historically, very few Sandhill lakes had any records of fish populations and, those that did, were not inhabited by sport fish currently sought after.

This alternative would not change any existing hunting program and would add a Refuge guided hunt to help control bison surplus. Visitors can hunt and fish in areas in which bison may be present. This may at times create hazards for hunters, anglers, and hikers. The Refuge will be operated like many national parks that have large animals. No guarantees of public safety will be made for people engaged in recreation in areas used by these animals. That is part of the "wildlife experience" and each person considering recreating in areas with these animals needs to consider their own abilities and base their decision to participate on their own risk assessment. Appropriate safety messages, educational efforts, and, perhaps at times, even closing off certain areas of the Refuge, should be a part of management of this Refuge if bison are reintroduced.

This alternative adds public use opportunity by allowing one concessionaire to provide access to the bison herd and conduct trail rides through the Refuge at certain times of the year. This activity is a new opportunity and would provide a new and unique way to enjoy the Refuge.

On Socio-Economic Conditions: This alternative would gradually phase out the economic advantages currently provided to local ranchers by not allowing permittee grazing on the Refuge. Compared to 1997, this would mean the eventual loss of approximately 6,000 AUM's to nine local ranch families. Cattle dependent on this forage would be lost to these ranchers or replacement forage would have to come from other sources. The Refuge would lose revenues generated by this activity to repair infrastructure such as wells, fences, and trails.

The reintroduction of bison on the Refuge may create increased tourism and recreational use as a result of the presence of this species. To the extent this occurred, area businesses would reap the benefits of increased sales of recreational supplies, food, gas, and lodging.

The use of prescribed fire may cause concern for local residents over the consequences of a prescribed burn that escapes containment and becomes a wildfire that burns off refuge onto adjacent private land. The Refuge fire program will continue to minimize the risk of escapes by adhering to Service policy which requires that a prescribed burn plan be approved before any prescribed burning takes place. The burn plan addresses the potential for escape and specifies the personnel and equipment needed, weather requirements, contingency plans, and many other aspects of the burn to ensure it stays within prescription. Additional personnel and equipment that are necessary to conduct prescribed burns will benefit the community by being available to assist local rural fire departments in the suppression of lightning and human caused wildfires that occur in the local area.

Alternative C. Intensive Wildlife Management:

Actively manage habitats and Refuge programs to increase outputs in certain areas.

- P Actively manage grasslands using grazing with permittee cattle and Texas longhorn cattle from Ft. Niobrara NWR, rest, and prescribed fire.
- P Retain water control structures in place and use active water level management, including drawdowns.
- P Increase monitoring, management, and research on threatened and endangered species.
- P Establish black-tailed prairie dog colonies on Refuge lands.
- P Control weeds and exotic plants using increased prescribed fire along with grazing, beneficial insects, and herbicides.
- P Continue current Refuge hunting programs with limits on numbers of hunters instituted if crowding occurs.
- P Reduce number of Refuge lakes open to sport fishing but increase management of those open for fishing.
- P Increase interpretation and environmental education and relocate Refuge headquarters to a location along Highway 83.
- P Continue current cooperative agreements and partnerships and seek additional ones.
- P Pursue land trades and acquisition from willing sellers.
- P Increase monitoring of wildlife and habitats.

Consequences of Implementing the Intensive Wildlife Management Alternative

On Natural Resources: This alternative would generally maintain the current grassland management program on the Refuge; a small drop in forage use of 600 AUM's would occur. Other changes would be that approximately 1,500 AUM's of permittee cattle use would be replaced with Texas longhorn cattle from Fort Niobrara NWR. Because this herd would be under Refuge control, the capability will exist to increase forage removal during April and May, and increase grazing pressure in fall and winter months. The percentage of rest and undisturbed cover would not change significantly from the current level; the Refuge will increase undisturbed cover to 60 percent, from 56 percent currently.

This alternative will increase the use of prescribed fire on the Refuge for cedar control and grassland invigoration. A decrease in haying on the Refuge will occur. These grassland management changes are not expected to significantly increase or decrease migratory waterfowl, prairie grouse, or other migratory and indigenous wildlife.

This alternative will introduce prairie dogs to suitable areas on the Refuge. The short grass and burrow systems created by prairie dogs increase biodiversity of mammals, reptiles, birds, and insects on prairie habitats. The Refuge will also increase its efforts to reestablish federally listed plants on the Refuge. Increased monitoring and coordinated research efforts to increase the knowledge base on how management practices affect blowout penstemon and western prairie fringed orchids will be conducted. Surveys for American burying beetle will also be conducted.

This alternative would reduce the number of lakes designated for sport fishery management. The Refuge staff would seek to enhance the remaining sport fishery lakes by increasing drawdowns and renovation to increase vegetation and insect productivity. These renovations would include restocking of sport fish.

On Cultural and Paleontological Resources:

This alternative would increase interpretation of cultural and historic resources on the Refuge. It will do so by conducting a Refuge-wide survey of prehistoric and historical resources. It will also seek to move the headquarters to Highway 83. This facility would have an opportunity for increased interpretation of these resources for the public.

On Public Use: This alternative would reduce the number of lakes open to fishing. The remaining lakes would be enhanced through periodic drawdowns and renovations to increase productivity. These renovations would include sport fish restocking. The net result on public fishing opportunity is expected to be very little. A smaller number of fishing lakes (from the present nine to seven) would be open; those that remain open are expected to be higher quality.

The Refuge hunting programs would remain the same. Increased opportunities for interpretation of Refuge resources will be provided by a more accessible headquarters along Highway 83. Staff availability to the public will increase as a result of this move.

On Socio-Economic Conditions: This alternative would reduce the current permittee grazing on the Refuge by approximately 1,500 AUM's. This forage would be removed by Texas longhorn cattle brought in from Fort Niobrara NWR. The ranchers losing the use of this forage would have to replace it elsewhere or downsize their cattle herd to accommodate the reduction.

This alternative would increase Refuge infrastructure investment due to the relocation of the headquarters; this investment would allow private contractors the opportunity to hire workers and perform the construction of the site and buildings. This alternative also adds some staff and increases the Refuge payroll. These jobs and salaries are multiplied through the community and enhance the overall local economic climate.

The use of prescribed fire may cause concern for local residents over the consequences of a prescribed burn that escapes containment and becomes a wildfire that burns off the Refuge onto adjacent private land. The Refuge fire program will continue to minimize the risk of escapes by adhering to Service policy which requires that a prescribed burn plan be approved before any prescribed burning takes place. The burn plan addresses the potential for escape and specifies the personnel and equipment needed, weather requirements, contingency plans, and many other aspects of the burn to ensure it stays within prescription. Additional personnel and equipment that are necessary to conduct prescribed burns will benefit the community by being available to assist local rural fire departments in the suppression of lightning and human caused wildfires that occur in the local area.

Preferred (Modified Historical) 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 implement a more natural/historic management regime with bison and prescribed fire as historical habitat management tools.

- P Fence and place bison herd on the proposed Wilderness Area of the Refuge.
- P Increase prescribed fire in this area and incrementally remove interior fences. Monitor this area over a five-year period to document changes in grasslands and wildlife. After the five-year period, determine if bison grazing was an adequate habitat management tool and otherwise, return to permittee cattle as the primary grassland management tool.
- P Retain Refuge lakes presently open to fishing open with water control structures, water level, and other management used to benefit sport fish.
- P Plug old drainage ditches.
- P Monitor threatened and endangered species use and conduct applied research to determine methods to increase use. Transplant blowout penstemon in additional sites and protect trees for bald eagle roosts.
- P Attempt to establish black-tailed prairie dog towns in suitable habitats.
- P Control weeds and exotic plants using a combination of prescribed fire, beneficial insects, and herbicides.
- P Continue current hunting and fishing opportunities.
- P Increase emphasis on environmental education and interpretation and move Refuge headquarters site to a location near Highway 83.
- P Continue current cooperative agreements and partnerships.
- P Seek outside funding to implement parts of the Plan.
- P Seek a partnering effort in bison management.
- P Pursue land trades and acquisition with willing sellers to straighten Refuge boundaries.
- P Pursue trading Holt Creek Wildlife Management Area for Willow Lake WMA with Nebraska Game and Parks Commission.
- P Increase monitoring of grasslands and wildlife with emphasis on evaluation of the use of bison and fire to manage grasslands.

Consequences of Implementing the Modified Historical (Preferred) Alternative

On Natural Resources: This alternative will reintroduce bison to the area of the Refuge currently under consideration for designation as Wilderness Area. The Refuge will gradually phase in bison to the proposed Wilderness Area. As bison are phased in, permittee cattle will be phased out. The area of reintroduction of bison into the Refuge will be fenced with bison proof fence at the boundaries and the majority of the interior fence will be removed. Prescribed fire will increase on the Refuge as a means to influence bison areas of use, invigorate grassland that receives very little use, and to reduce cedar invasion of grasslands. Haying will gradually be reduced from the current acreage of 700. Nonnative grasses such as smooth brome and Kentucky bluegrass will probably increase as grazing treatments using bison will be less precise than current management using cattle. The increase of these grasses will reduce the vigor of native warm season grasses preferred as nesting cover by waterfowl, grouse, and some other species of grassland birds.

It is anticipated that bison activity will create a mosaic of grassland conditions, with some areas being heavily grazed, others moderately grazed and others unused. This mosaic should actually increase the overall diversity of the bird population on proposed Wilderness Area of the Refuge by allowing greater grassland song bird use and increasing migratory use by all species of birds. This alternative also seeks to introduce prairie dogs to suitable habitats within the Refuge. The burrows of prairie dogs increase mammal, bird, reptile, and insect diversity on prairies, and should on Valentine NWR as well.

This alternative also increases the level of effort spent on reestablishing blowout penstemon on the Refuge; increases research on management practices that facilitate expansion on Western prairie fringed orchids; and conducts surveys for American burying beetles. These efforts will enhance federally listed species' protection on the Refuge.

On Cultural and Paleontological Resources:

This alternative will increase the level of interpretation of prehistoric and historic resources on the Refuge. It will do so by conducting a Refuge-wide survey of prehistoric and historical resources. It will also seek to move the headquarters to Highway 83. This facility would increase interpretation opportunities of these resources to the public.

On Public Use: This alternative will maintain the current sport fishery program, with nine lakes open to fishing. No expansion into other lakes on the Refuge will be allowed. The Refuge will seek to conduct drawdowns and renovations of these and other lakes to increase vegetative and aquatic insect productivity. In the case of sport fishing lakes, these renovations will include restocking of sport fish.

This alternative does not change any existing hunting programs except to close 160 acres adjacent to the Hackberry CCC fire tower. The public will be able to hunt and fish in areas that bison may be present in. Bison may at times create hazards for hunters, anglers, and hikers. The Refuge will be operated like many national parks that have large animals. No guarantees of public safety will be made for people engaged in recreation in areas used by these animals. That is part of the "wildlife experience" and each person considering recreating in areas with these animals needs to consider their own abilities and base their decision to participate on their own risk assessment. Appropriate safety messages, educational efforts, and, perhaps at times, even closing off certain areas of the Refuge if bison are reintroduced into the proposed Wilderness Area of the Refuge.

This alternative adds public use opportunity by allowing one concessionaire to provide access to the bison herd and conduct trail rides through the Refuge at certain times of the year. This activity is a new opportunity and would provide a new and unique way to enjoy the Refuge.

This alternative includes enhancement of the existing fire tower overlook and establishment of a hiking trail accessing the tower. By establishing a headquarters along Highway 83, the public will have greater access to Refuge staff and greater access to all Refuge public use programs.

On Socio-Economic Conditions: This alternative would gradually phase out the economic advantages currently provided by allowing permittee grazing on the proposed Wilderness Area of the Refuge. This forage would be lost to these ranchers or replacement forage would have to come from other sources. The Refuge would lose revenues generated by this activity to repair infrastructure such as wells, fences, and trails.

This alternative would increase Refuge expenditures on infrastructure. Implementation of the preferred alternative would add to the local economy as needed supplies are purchased and contractors hired to complete proposed projects.

This alternative does not reduce the current work effort required by existing Refuge activities, and adds a significant number of new work activities. To address that need, the Refuge Complex will have to add personnel. Salaries of additional staff will add to the overall local economy.

This alternative would have a positive effect through provision for a concessionaire to provide tours to the main herds. This will allow a local entrepreneur the opportunity to start a new business.

The introduction of bison on the proposed Wilderness Area of the Refuge may expand tourism and recreational use as a result of the presence of this species on Valentine NWR. To the extent this occurred, area businesses would reap the benefits of increased sales of recreational supplies, food, gas, and lodging.

The Fort Niobrara/Valentine NWR Complex has long been an important contributor to the economy, recreation, and social atmosphere of Cherry County. Choices made by this alternative recognize that relationship, and the future Refuge activities and programs will continue to contribute in a positive way to the area and its people.

The use of prescribed fire may cause concern for local residents over the consequences of a prescribed burn that escapes containment and becomes a wildfire that burns off the Refuge onto adjacent private land. The Refuge fire program will continue to minimize the risk of escapes by adhering to Service policy which requires that a prescribed burn plan be approved before any prescribed burning takes place. The burn plan addresses the potential for escape and specifies the personnel and equipment needed, weather requirements, contingency plans, and many other aspects of the burn to ensure it stays within prescription. Additional personnel and equipment that are necessary to conduct prescribed burns will benefit the community by being available to assist local rural fire departments in the suppression of lightning and human caused wildfires that occur in the local area.

Appendix I.

Summary of Public Involvement/ Comments and Consultation/ Coordination

The National Environmental Policy Act requires all Federal agencies to examine the impacts upon the environment that their actions might have, to incorporate the best available environmental information, and the use of public participation in the planning and implementation of all actions. All public participation involved in the planning process that ultimately led to the development of this Plan was led and complied with the requirements of NEPA and sound stewardship of our Nation's natural resources.

Key steps in the development of this Plan, in its present form included: (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 preferred alternative; (7) publishing the Draft Plan and soliciting public comments on the Draft Plan; (8) reviewing comments and effecting necessary and appropriate changes to the Draft CCP; and, (9) preparing this final Plan for approval by the Region 6 Regional Director, and finally (10) implementing the Plan.

In January, 1997 at a meeting at Fort Niobrara NWR, a core team was formed to prepare this Plan by following the Service's planning process and ensuring NEPA procedures for public involvement were followed. A review team was set up to provide guidance and direction to the core planning team. Public involvement began when a working group was organized to provide interchange of information between Service personnel, outside agencies, and interested stakeholders of the Refuge.

On March 20, 1997, in an effort by the Service to disseminate information and involve the public, an open house scoping session was held in the Cherry County Hall meeting room, Valentine, Nebraska. The open house provided participants an opportunity to learn about the Refuge's purposes, mission and goals, and issues currently facing management. People attending were provided the chance to speak with Service representatives and to share their comments.

On October 28, 1997, a meeting was held with Refuge permittees that are actively involved with canoeing and tubing on the Niobrara River through the Fort Niobrara NWR to discuss the issues of common interest on the future uses of this River. The Service scheduled this and other meetings to let people know what the Service was doing to manage the wildlife and habitats of the Refuge and to elicit their input on topics of interest to them.

The Draft CCP/EA was the first opportunity that these groups and the public had to review the entire planning effort and the Draft Plan. The Draft Plan was released on the last week of April 1999 and distributed in the first week of May 1999. A 60-day comment period was provided in which the Service requested information, comments, concerns, suggestions, and complaints from the public regarding the Draft CCP/EA. Because of the tremendous amount of public interest in this Plan, the Service extended the comment period for 45 more days, for a total of 105 days of public comment period. With this extension, the public comment period did not close until August 19, 1999.

The voluminous amount of comment letters and electronic mail communications were reviewed and summarized by category and subject. The summary of these comments was presented to the Service's core team and the regional directorate to help them in the preparation of the final Plan. Appropriate modifications were made to the Draft CCP/EA in accordance with scientifically based new information provided by the public during the comment period. The present Plan contains the changes made by the Service in accordance to the recommendations of the directorate and Service biologists and managers.

Public comments were received orally at meetings, scoping sessions, open house forums, via e-mail messages and in writing, both before and during the public comment period phase of the comprehensive conservation planning process. The following issues, concerns, and comments are a compilation and summary of the concerns expressed by the public. For further information on Public Involvement and Issues, please see the Plan's section on Planning Process.

Appendix J. Mailing List

Federal Officials

- P U.S. Senator Bob Kerry
Doug Durry, Jr. Leg. Ass't, Omaha, NE
- P U.S. Senator Charles Hagel
Doug Lamude, Leg. Ass't., Omaha, NE
- P U.S. Representative Bill Barrett
Mark Whitacre, Leg. Director, Grand Island, NE
Greg Beam, Bill Barrett's Office

Federal Agencies

- P USDA/APHIS, Dr. Kathleen Akin, Lincoln, NE
- P USDA/Forest Service, Gregg Schenbeck
- P USDA/Forest Service, Don Carpenter
- P USDA/Natural Resource Conservation Service
- P US EPA, Denver, CO
- P USDI/Fish and Wildlife Service, Denver, CO;
Albuquerque, NM; Portland, OR; Anchorage, AK;
Fort Snelling, MN; Atlanta, GA; Hadley, MA;
Washington, D.C.
- P USDI/Fish and Wildlife Service, Lacreek NWR,
Martin, SD; National Bison Range, Moiese, MT;
Wichita Mountains NWR, Indianola, OK;
Crescent Lake NWR, Scottsbluff, NE; Rainwater
Basin NWR, Kearney, NE; Benton Lake NWR,
Black Eagle, MT; Ecological Services, Grand
Island, NE
- P USDI/ NPS, Niobrara/Missouri Natl. Scenic River,
Paul Hedren
- P USGS/BRD, Rick Schroeder, Fort Collins, CO
- P USGS/National Wildlife Health Center, Dr.
Thomas Raffae, Bozeman, MT

State Officials

- P Governor Mike Johanns, Lincoln, NE
- P Senator Jim Jones, Lincoln, NE

State Agencies

- P Department of Agriculture, Chadron, NE
- P Middle Niobrara NRD, Robert F. Hilske
- P NE Game & Parks Commission, Rex Amack
- P NE Game & Parks Commission, Bill Vodehnal
- P NE Game & Parks Commission, Joel Klammer
- P NE Game & Parks Commission, Kris Danielson
- P NE Game & Parks, Valentine Fish Hatchery
- P State Historic Preservation Officer, Lincoln, NE

City/County/Local Governments

- P Melvin Christensen, Cherry County Sheriff
- P Dean Jacobs, Valentine Chamber of Commerce
- P Rick Medena, City Manager-Valentine
- P Valentine City Council
- P Brown County Commissioners
- P Keya Paha County Commissioner
- P Cherry County Commissioners
- P Valentine Niobrara Council

Libraries

- P Valentine Public Library
- P Ainsworth Public Library

Organizations

- P Audubon Society, Dave Sands
- P National Audubon Society, Gretchen Muller
- P Central Mountain & Plains Section of the Wildlife
Society
Dr. Rick Baydack, Winnipeg, MB
Dr. Carolyn Hull-Sieg, Rapid City, SD
Joe Hyland, Lincoln, NE
Jeff Nichols, Ogallala, NE
Dr. Gary Packard, Ft. Collins, CO
Dr. Pat Reece, Scottsbluff, NE
Tom Rider, Lander, WY
Dr. Terry Riley, Aberdeen, SD
Dr. Dan Svedarsky, Crookston, MN
- P Cherry County Pheasants Forever, Valentine, NE
- P Cooperative Alliance for Refuge Enhancement
(CARE), Washington, D.C.
- P Defenders of Wildlife, Washington, D.C.
- P Fort Niobrara Natural History Assoc., Valentine, NE
- P Great Plains Buffalo Association
- P Intertribal Bison Cooperative, Tony Willman
- P Midcontinent Eco. Science Center, Fritz Knopf
- P National Bison Association
- P National Wildlife Refuge Assoc., Washington, D.C.
- P National Wildlife Refuge Assoc., Colorado Springs, CO
- P The Nature Conservancy, Al Steuter
- P Nebraska Branch for Holistic Management
- P Nebraska Cattleman, Troy Bredenkamp
- P Nebraska Chap/merican Fisheries Society, Lincoln, NE
- P Nebraska Chapter TWS, Carl Wolfe
- P Nebraska State Buffalo Assoc, Dave Hutchinson
- P Nebraska State Buffalo Assoc, Larry Mason
- P Nebraska Wildlife Federation, Lincoln, NE
- P Niobrara Canoe Outfitters Assoc., Roy Breuklander
- P Niobrara Council:
Nola Moosman, Recreation Rep, Valentine, NE
Dwight Sawle, Forestry Rep, Springview, NE
Brad Arrowsmith, Keya Paha, Bassett, NE
Harlin Welch, Brown County, Ainsworth, NE
Paul L. Hedren, National Park Service, O'Neill, NE
Tom Higgins, Newport, NE
Warren Arganbright, Valentine, NE
Jim Van Winkle, Cherry County Commissioner,
Valentine, NE
Bill Mulligan, Middle Niobrara NRD, Valentine, NE
Jim Harlin, Rock County, Bassett, NE
Betty Palmer, Keya Paha County Commissioner,
Springview, NE
Lloyd Alderman, Rock County Commissioner,
Newport, NE
Larry Voecks, Nebraska Game&Parks, Norfolk, NE
Betty Hermsmeyer, Brown County Commissioner,
Ainsworth, NE
- P Rocky Mountain Elk Foundation, Pratt, KS
- P Sandhills Task Force, Kearney, NE
- P Southern Missouri Ascertainment, Puxico, MO
- P Texas Longhorn Breeders Assoc, Tim Miller
- P Texas Longhorn Trails, Carolyn Hunter
- P Wilderness Society, Washington, D.C.
- P Wilderness Watch, Missoula, MT

Newspapers/Radio

P Ainsworth Star-Journal, Ainsworth, NE
P Associated Press, Omaha, NE
P The Chadron Record, Chadron, NE
P Grand Island Daily Independent, Grand Island, NE
P Journal-Star Printing, Lincoln, NE
P The Kearney Daily Hub, Kearney, NE
P KVSH Radio, Valentine, NE
P Lincoln Star, Lincoln, NE
P The Midland News, Valentine, NE
P The Norfolk Daily News, Norfolk, NE
P North Platte Telegraph, North Platte, NE
P Omaha-World Herald, Omaha, NE
P The Outdoorsmen, Hartington, NE
P Rock County Leader, Bassett, NE
P Springview Herald, Springview, NE
P United Press International, Omaha, NE

Universities/Colleges

P Dr. Tom Bragg, Department of Biology, UNO
P Ken Higgins, SD Coop Unit, SDSU, Brookings
P Mark Morgan, KSU, Dept of Horticulture,
Forestry, & Recreation, Manhattan, KS
P Dr. James Stubbendieck, Dept. of Agronomy,
University of NE
P Dr. Joe Templeton, Dept. of Veterinary
Pathobiology, Texas A&M

Individuals

Adamson, Mark
Allen, Dave
Badura, Laurel
Ballard, Doug
Ballard, Richard and Jeri
Bancroft, Cal
Barnard, Dick
Barragy, T.J.
Bartling, Steve
Bennett, Dennis
Birger, Dick
Birger, N.H.
Blome, George
Breuklander, Steve
Brown, Greg
Burge, Mike
Burge, Russell
Carter, Wayne
Christiansen, Lou
Churchill, Dean
Cloutier, Terry
Colburn, Dean
Conner, Keith and Sally
Cook, Georgia
Cornelius, Bob
Crawford, Mary
Custard, Rick
Damrow, Roger
Davenport, John
Davis, John
Ducey, Jim
Ellis, Bob
Fields, Robert
Fitch, Ken
Fishell, Ralph
Gallino, Orville
Gass, Bob
Geddie, John
Geib, Sandy
Geiger, Steve
Gillespie, Jerry
Gordon, Troy
Graham, Doug
Grabher, Bob
Graff, Martin
Graham, Twyla
Graves, Leroy
Grooms, Jerry
Gudden, Andrew
Gudgel, Duane
Gunntly, Kent
Gustafson, Bob
Hanna, Jeff
Hartman, Darrel
Heathershaw, Pat
Hellmund, Paul Cawood
Henry, Dale
Hickerson, Hal
Higgins, Tom
Hoehne, Paul
Hollenbeck, Rex
Hollopeter, Willard
Hunter, Carolyn
Huscher, Nora
Ingle, Kay
Isom, Stephen
Jackson, Bob
Jarvi, Guy
Jeffers, Dick
Jenson, Ron

Johnson, Dale
Jones, Doug
Kasselder, Charles
Keenan, Mike
Kerr, Steve
Kramer, Kaye
Kuck, Lance
Kuhre, Beryl
Kutilek, William R.
Lee, Jim
Long, Larry
Lord, Elver
Lorenzen, Robin
Maginnis, Berdine
Maginnis, Monty
Marlott, Kenneth
Mathey, Kevin
May, Maynard
Mecure, Randy
Mecure, Rich
Metschke, Corey
McPeak, Janet
Millard, Scott
Moosman, Nola
Muller, Gretchen
Muller, Roxann
Mulligan, Bill
Murphy, John
Nagorski, Rod
Nelson, Leonard
Nichols, Meachelle
Nielsen, Einar
Olson, Ole
Parks, Reuben
Penlerick, LeRoy
Perrett, Brian
Peters, Bill
Peterson, Chad
Peterson, Georgia
Peterson, Kent
Pierce, Roger
Price, Dave
Reece, Bud
Reimann, K.F.
Riley, Terry
Robbins, Jr., Dick
Robart, Kevin
Roberts, Jerome
Rogers, Ron
Rokita, Thomas J.
Rosfeld, Otto
Roth, Robin
Rupe, John
Rutten, Ben
Ryschon, Jerry
Salyer, Jim
Scheffler, Delbert
Schneider, Julie
Schroeder, Mr. & Mrs. Don
Sealing, Clee
Segar, John
Sharp, Wayne
Sherwood, Greg
Simmons, Carl
Simmons, Jean

Smiley, Jay
Sokol, Dick
Sovereign, Ron
Stack, Taylor and Linda
Sterry, Rich
Streeter, Bob
Smith, Neil
Soper, Don
Stoeger, Doug
Stokes, Alan
Stroup, William
Stump, Dr. Bill
Suhr, Jenny
Tegtmeier, Jim
Terhaar, Dennis
Thortall, Vic
Tibbs, Raymond
Toman, Tom
Torgerson
Turner, Bill
Turner, Lawrence
VanDerPloegh, Marvin
Van Winkle, Jim
Vineyard, Brian
Vosicky, George
Walkling, Al
Waln, Bill
Walton, Judy
Wescott, Mike
Witthuhn, John
Young, Cork and Mary
Young, Loren
Young, Mike
Young, P.H.

Appendix K.

List of Preparers

This document is a compilation of efforts by several Service people. The Core Planning Team consisted of Jon Kauffeld (Regional Office Refuge Planner) who was later replaced by Bernardo Garza (Regional Office Refuge Planner), Kathy McPeak (Wildlife Biologist), Mark Lindvall (Refuge Operations Specialist), Jim Sellers (Refuge Operations Specialist), Jim Kelton (Fire Management Officer), Len McDaniel (Wildlife Biologist), and Doug Staller (Regional Public Use Specialist) and was responsible for gathering and preparing information.

Royce Huber (Refuge Manager), Wayne King (Regional Wildlife Biologist), Bob Nagel (Refuge Supervisor), Larry Shanks (Refuge Supervisor), and Carol Taylor (Regional Office Planning Supervisor) provided guidance and assisted with review and editing.

Rhoda Lewis (Regional Archaeologist), Stephanie Jones (Regional Non-game Bird Biologist), and Cheryl Willis (Water Resource Specialist) provided technical expertise. Jaymee Fojtik (GIS Coordinator) prepared the various maps.

Barb Shupe (Regional Writer/Editor) compiled the document and completed all desktop publishing aspects of the document.

Appendix L. Intra-Service Section 7 Consultation

INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Persons: Royce Huber
José Bernardo Garza

Telephone Number: (402) 376-3789
(303) 236-8145 x 672

Date: September 28, 1999

I. Region: 6

II. Service Activity (Program): Refuges & Wildlife, Valentine National Wildlife Refuge

III. Pertinent Species and Habitat:

A. Listed species and/or their critical habitat within the action area:

bald eagle, *Haliaeetus leucocephalus* (threatened)
whooping crane, *Grus americana* (endangered)
piping plover, *Charadrius melodus* (threatened)
least tern, *Sterna antillarum* (endangered)
American burying beetle, *Nicrophorus americanus* (endangered)
blowout penstemon, *Penstemon haydenii* (endangered)
Western prairie fringed orchid, *Platanthera praeclara* (threatened)

There is no federally designated critical habitat on the action area (Valentine NWR)

B. Proposed species and/or proposed critical habitat within the action area: None

C. Candidate species within the action area:

swift fox, *Vulpes velox*

D. Include species/habitat occurrence on a map: see attachment

IV Geographic area or station name and action:

Station: Valentine National Wildlife Refuge (Sandhills region in north-central Nebraska)

Action: Issuance and Implementation of the Comprehensive Conservation Plan for Valentine NWR

V. Location (map attached):

A. Ecoregion Number and Name: Valentine NWR is located within the Service's Region 6, Mountain-Prairie Region, and specifically in the Platte/Kansas Rivers Ecosystem

B. County and State: Cherry County, Nebraska

C. Section, township, and range:

Valentine NWR includes parts or all of Sections 5, 6, 7 & 8, Township 28 North, Range 26 West; Sections 1, 2, 3, 4, 5 & 6, Township 28 North, Range 27 West; Sections 19, 20, 27, 28, 29, 30, 31, 32 & 33, Township 29 North, Range 26 West; Sections 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34 & 35, Township 29 North, Range 27 West; Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 30 & 36, Township 29 North, Range 28 West; Sections 1, 2, 3, 4, 10, 11, 12, 13, 14, 15, 22, 23 & 24, Township 29 North, Range 29 West; Sections 21, 27, 28, 29, 30, 31, 32, 33 & 34, Township 30 North, Range 27 West; Sections 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35 & 36, Township 30 North, Range 28 West; and Sections 9, 10, 11, 13, 14, 15, 21, 22, 23, 24, 25, 26, 27, 28, 33, 34, 35 & 36, Township 30 North, Range 29 West.

D. Distance (miles) and direction to nearest town: 20 miles south of Valentine, NE

E. Species/habitat occurrence:

bald eagle:	annual winter residents at the Refuge; normally no more than 6 eagles are recorded during the winter survey, but up to 100 eagles have concentrated at fish kill sites, both on and adjacent to the Refuge
whooping crane:	rare visitor to the Refuge but has been documented on Refuge wetlands/lakes during spring/fall migrations
piping plover:	rare visitor to the Refuge but has been documented on Refuge wetlands/lakes during spring/fall migrations
least tern:	rare visitor to the Refuge but has been documented on Refuge wetlands/lakes during spring/fall migrations
American burying beetle:	six records of these species were documented in 1992 and one specimen was photographed on the Refuge on 1993. A limited survey in 1998 recorded eight beetles in the Refuge
blowout penstemon:	a small number of naturally occurring penstemons have been found in three locations on the Refuge. In recent years, seedlings have been transplanted into nine blowouts in an attempt to increase the overall population

- Western prairie fringed orchid: orchids have been documented on eight sites on the Refuge and at three sites on private land immediately adjacent to the Refuge

VI Description of proposed action

The proposed action is the development and implementation of a Comprehensive Conservation Plan for Valentine NWR. Implementation of this Plan comprises implementation of all actions and activities to achieve the stated goals contained in the Plan that will ultimately lead to the fulfillment of the purposes for which Congress established Valentine NWR.

VII Determination of effects:

A. Explanation of effects of the action on species and critical habitats in items III. A, B & C

- bald eagle: the proposed action will have a beneficial effect on this threatened species as the eagle's wintering and nesting habitat and feeding areas in the Refuge will be protected as a result of the implementation of the Plan, which might lead to an increase in Refuge use by this species
- whooping crane: this species is a rare visitor to the Refuge during migration. The Plan calls for preservation of habitats conducive to this species. Thus, implementation of the Plan will have a beneficial effect on the habitats utilized by this species and, hence, on this endangered species
- piping plover: this species is a rare visitor to the Refuge during migration. The Plan calls for preservation of habitats conducive to this species. Thus, implementation of the Plan will have a beneficial effect on the habitats utilized by this species and, hence, on this threatened species
- least tern: this species is a rare visitor to the Refuge during migration. The Plan calls for preservation of habitats conducive to this species. Thus, implementation of the Plan will have a beneficial effect on the habitats utilized by this species and, hence, on this endangered species
- American burying beetle: this species occurs in the Refuge. The Plan calls for surveys to be performed, monitoring and protection of the species so as to conserve beetle populations in the Refuge. Thus, implementation of this Plan will have a beneficial effect on this endangered insect species
- blowout penstemon: the Plan calls for surveys to determine if the Refuge contains further blowouts that are adequate habitats for this species and maintenance of the current identified blowout

habitats. Furthermore, the Plan calls for an expansion in the population of this species in the Refuge by transplanting of specimens to currently unoccupied habitat in the Refuge. Thus, implementation of this Plan will have a beneficial effect on this endangered plant species

Western prairie fringed orchid: this listed species currently occurs at the Refuge, and the Plan proposes not only to protect currently occupied habitats but to protect and manage potential habitats (approximately 2,000 acres) so that they continue to be conducive and possible be occupied by the species in the future. Thus, implementation of the proposed action will have a beneficial effect on this species

swift fox: while the Refuge is within the historical range of this candidate species no specimen of this mammal has ever been documented on lands currently occupied by the Refuge. Nevertheless, none of the actions proposed in the Plan will adversely impact the species or its habitats on the Refuge. The Refuge will participate in actions to determine the species' presence or absence should the species be listed under the Endangered Species Act

There is no federally designated critical habitat on the action area (Valentine NWR) and the Plan does not find a need to propose designating critical habitat within the Refuge

B. Explanation of actions to be implemented to reduce adverse effects: Not Applicable

VIII Effect determination and response requested: [* = optional]

A. Listed species/designated critical habitat:

Determination

Response requested

no effect/no adverse modification
(species: bald eagle, whooping crane, piping plover
least tern, American burying beetle, blowout penstemon,
and Western prairie fringed orchid)

_____ *Concurrence

may affect, but is not likely to adversely affect
species/adversely modify critical habitat
(species: NONE)

_____ Concurrence

may affect, and is likely to adversely affect species
/adversely modify critical habitat
(species: NONE)

___ Formal Consultation

B. Proposed species/proposed critical habitat:

Determination

Response requested

no effect on proposed species/no adverse modification of proposed critical habitat (species: NONE)

 ✗ *Concurrence

Is likely to jeopardize proposed species/ adversely modify proposed critical habitat (species: NONE)

_____ Conference

C. Candidate Species:

Determination

Response requested

no effect (species: swift fox)

 ✗ *Concurrence

is likely to jeopardize candidate species (species: NONE)

_____ Conference



Royce Huber, Refuge Manager
Fort Niobrara/Valentine National Wildlife Refuge Complex

 9/28/99
Date

IX Reviewing ESO Evaluation:

A. Concurrence ✓

Nonconcurrency _____

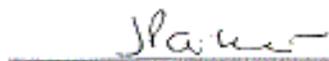
B. Formal Consultation required: _____

C. Conference required: _____

D. Informal conference required: _____

E. Remarks:

F.



Steve Anschutz
Nebraska Field Supervisor, U.S. Fish & Wildlife Service

 9/28/99
Date

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For Refuge Information
1800/344 WILD

September 1999



