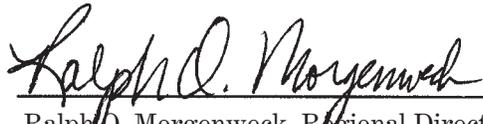


Environmental Action Statement

U.S. Fish & Wildlife Service
Region 6
Denver, Colorado

Within the spirit and intent of the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of implementing the Crescent Lake National Wildlife Refuge Comprehensive Conservation Plan (CCP) is found not to have significant environmental effects as determined by the attached Finding of No Significant Impact and the Environmental Assessment as found in the Draft CCP.



Ralph O. Morgenweck, Regional Director
Region 6, U.S. Fish & Wildlife Service

8/19/02

Date



Richard A. Coleman, Ph.D.
Regional Chief, National Wildlife Refuge System
Refuges and Wildlife

8/15/02

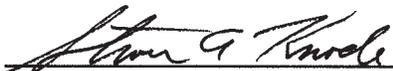
Date



Ron Cole, Refuge Program Supervisor
National Wildlife Refuge System
Refuges and Wildlife

8-15-02

Date



Steven A. Knode, Project Leader
Crescent Lake / North Platte NWR Complex

August 13, 2002

Date

Finding of No Significant Impact

Crescent Lake National Wildlife Refuge Comprehensive Conservation Plan

Four management alternatives for the Crescent Lake National Wildlife Refuge were assessed as to their effectiveness in achieving the Refuge's purposes and their impact on the human environment. Alternative 1 - No Action Alternative which would continue the current management for the Refuge and not include extensive restoration of wetland and grassland habitats; Alternative 2 - historical management of refuge habitats and wildlife to replicate pre-settlement conditions; Alternative 3 - the intensive management of refuge habitats and refuge program to increase outputs in certain areas; and the preferred Alternative 4 - modified historical management of habitats for native birds and wild animals and to pursue a more natural historic management regime. The alternatives were assessed in the CCP management plan and Environmental Assessment. Based on this assessment and comments received, I have selected preferred Alternative 4 for implementation.

The preferred alternative was selected because it best meets the purposes of the Refuge to reserve and set apart as a refuge and breeding ground for birds and wild animals. The preferred alternative will also provide for public access for wildlife-dependent recreation, and provides environmental education opportunities related to fish and wildlife resources.

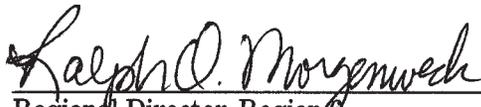
I find that the preferred Alternative is not a major Federal action that would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969. Accordingly, the preparation of an environmental impact statement on the proposed action is not required.

Based on public comment and Service review of the Draft CCP, the following changes are noted to the Environmental Assessment published with the Draft CCP.

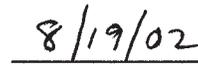
- Within the social economic conditions section of the EA, a comment was received stating that the Service did not identify there would be grazing income from privately owned bison. The Service agreed with this comment. The original Draft CCP anticipated a government owned bison herd; however, the Service's policy made this option very difficult so the idea of a privately owned bison herd was used as the most likely scenario.
- A comment was received requesting that the air quality class be addressed. The Refuge staff found that Nebraska has Class 2 air quality. While researching the air quality, we incorrectly stated there would be no effect on the air quality when in fact we should have said that any impacts to air quality would be short-term and will not exceed National Ambient Air Quality Standards.
- During the development and review of the Draft CCP, a neighboring landowner requested a land exchange of 200 acres with the Refuge. The Service approved the exchange for the following reasons. The Refuge exchanged land had bisected neighboring landowner property. Both of the exchanged parcels were similar vegetation types and of equal value. The exchange reduced maintenance cost for both the Refuge and neighboring landowner and improved ability to move grazing animals. The exchange is located within Township 21 North, Range 43 West, in Sections 24 and 25. The exchange and new Refuge boundary are reflected on the maps in the CCP.
- A comment was received indicating that while the Refuge has adequate personnel to cover most wildfires in the summer, they do not have those people employed during the fall and winter.

The following is a summary of anticipated environmental effects from implementation of the preferred alternative:

- The preferred alternative will not adversely impact endangered or threatened species or their habitat.
- The preferred alternative will not adversely impact archaeological or historical resources.
- The preferred alternative will not adversely impact wetlands nor does the plan call for structures that could be damaged by or that would significantly influence the movement of floodwater.
- The preferred alternative will not will have a disproportionately high or adverse human health or environmental effect on minority or low-income populations.
- The State of Nebraska has been notified and given the opportunity to review the Comprehensive Conservation Plan and associated Environmental Assessment.



Regional Director, Region 6
U.S. Fish & Wildlife Service
Denver, Colorado



Date

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 a normal 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.

Categorical Exclusion (CE, CX, CATEX, CATX): A category of actions that do not individually or cumulatively have a significant effect on the human environment and have been found to have no such effect in procedures adopted by a Federal agency pursuant to the National Environmental Policy Act (40 CFR 1508.4).

CCP or Plan: Comprehensive Conservation Plan

CFR: Code of Federal Regulations

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.

Cover Type: The present vegetation of an area.

Cultural Resources: The remains of sites, structures, or objects used by people in the past.

Cultural Resource Inventory: A professionally conducted study designed to locate and evaluate evidence of cultural resources present within a defined geographic area. Inventories may involve various levels, including background literature search, comprehensive field examination to identify all exposed physical manifestations of cultural resources, or sample inventory to project site distribution and density over a larger area. Evaluation of identified cultural resources to determine eligibility for the National Register follows the criteria found in .36 CFR 60.4 (Service Manual 614 FW 1.7).

Cultural Resource Overview: A comprehensive document prepared for a field office that discusses, among other things, its prehistory and cultural history, the nature and extent of known cultural resources, previous research, management objectives, resource management conflicts or issues, and a general statement on how program objectives should be met and conflicts resolved. An overview should reference or incorporate information from a field offices background or literature search described in Section VIII of the Cultural Resource Management Handbook (Service Manual 614 FW 1.7).

Designated Wilderness Area: An area designated by the United States Congress to be managed as part of the National Wilderness Preservation System (Draft Service Manual 610 FW 1.5).

Disturbance: Significant alteration of habitat structure or composition. May be natural (e.g., fire) or human-caused events (e.g., timber harvest).

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.

Endangered Species (State): A plant or animal species in danger of becoming extinct or extirpated in an individual State within the near future if factors contributing to its decline continue. Populations of these species are at critically low levels or their habitats have been degraded or depleted to a significant degree.

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.

Federal Trust Species: All species where the Federal government has primary jurisdiction including federally endangered or threatened species, migratory birds, anadromous fish, and certain marine mammals.

Fire Regime: A description of the frequency, severity, and extent of fire that typically occurs in an area or vegetative type.

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).

Forb: A broad-leaved, herbaceous plant; for example, a columbine.

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

Geographic Information System (GIS): A computer system capable of storing and manipulating spatial data.

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 forest lands, 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.

Minimum Tool: The minimum action or instrument necessary to successfully, safely and economically accomplish wilderness management objectives.

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 & 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

NGPC: Nebraska Game and Parks Commission

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.

Notice of Availability or NOA: An NOA is a notice that documentation is available to the public on a Federal action, in this case, the Comprehensive Conservation Plan. Published in the [Federal Register](#).

Notice of Intent or NOI: In the case of a Federal action, such as analyzed in this documentation, an NOI is a notice that an environmental impact statement will be prepared and considered (40 CFR 1508.22). Published in the [Federal Register](#).

Noxious Weed: A 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 insect 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 had 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.

NRCS: National Resource Conservation Service

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 Area: A planning area may include lands outside existing planning unit boundaries that are being studied for inclusion in the System and/or partnership planning efforts. It may also include watersheds or ecosystems that affect the planning area.

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.

Planning Unit: A single refuge, an ecologically/administratively related complex of refuges, or distinct unit of a refuge.

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 bunch grass.

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.

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 Crescent Lake National Wildlife Refuge

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 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 sub-unit (Draft Service Manual 602 FW 1.5)

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

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.

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 & Wildlife Service

Special Status Species: Plants or animals which have been identified through either Federal law, State law, or agency policy, as requiring special protection of monitoring. Examples include federally listed endangered, threatened, proposed, or candidate species; state listed endangered, threatened, candidate, or monitor species; U.S. Fish & Wildlife Service species of management concern and species identified by the Partners in Flight program as being of extreme or moderately high conservation concern.

Species of Management Interest: Those plant and animal species, while not falling under the definition of special status species, that are of management interest by virtue of being Federal trust species such as migratory birds, important game species including white-tailed deer, furbearers such as American marten, important prey species including red-backed vole, or significant keystone species such as beaver.

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 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.

Threatened Species (State): A plant or animal species likely to become endangered in an individual State within the near future if factors contributing to population decline or habitat degradation or loss continue.

Trust Species: Species for which the U.S. Fish & 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 & 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).

VORS: Visual Observation Readings. A measurement of the density of a plant community; the height of vegetation that blocks the view of predators to a nest.

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. Literature Cited / References

- Bandy, Mollie. 1980. A Study of Upland Sandpiper Behavior and Habitat Selection in the Sandhills of Nebraska. Univ. Of Nebr., Omaha. Masters thesis. 62 pp.
- Barnes, P.W. 1984 Vegetation patterns in relation to topography and edaphic variation in Nebraska Sandhills Prairie. *Prairie Nat.* 16(4): 145-158.
- Bicak, T.K. 1977. Some Eco-ethological Aspects of a Breeding Population of Long-billed Curlews in Nebraska, *Proc. Nebr. Acad. Sci. Affil. Soc.* 87:7
- Bleed, A. and C. Flowerday, Ed. 1989. An Atlas of the Sandhills, Sec. Edition. Cons. And Survey Div., Insti. Of Agr. And Natural Resources, Univ. Of Nebr.-Lincoln. 265 pp.
- Bue, I.G. 1952. The Relationship of Grazing Practices to Waterfowl Breeding Populations and Production on Stock Ponds in Western South Dakota. *Trns. N. Am. Wildl. Conf.* 17:396-414.
- Burgett, G.R. and R.K. Nickel. 1999. Archeological Overview and Assessment for Lacreek, Fort Niobrara and Valentine National Wildlife Refuges. Midwest Archeological Center, National Park Service. 41pp.
- Christisen, D.M. 1969. National Status and Management of the Greater Prairie Chicken. *Trans. N. Amer. Wildl. and Nat. Resour. Conf.* 34:207-217.
- Clark, J.P. 1977. Effects of Experimental Management Schemes on Production and Nesting Ecology of Ducks at Malheur National Wildlife Refuge. Oregon State University Masters Thesis. 79 pp.
- Duebbert, H.F. 1966 Island Nesting of the Gadwall in North Dakota. *Wilson Bull.* 78:12-25.
- Duebbert, H.F. 1969 High nest density and hatching success of ducks on South Dakota CAP land. *Trans. Of Am. Wildl. Resour. Conf.* 34:218-229
- Duebbert, H.F. 1974 Creating a Sea of Grass. Ducks Unlimited Magazine Mar-Apr 1974.
- Duebbert, H.F. and J.T. Lokemoen. 1976 Duck nesting in fields of undisturbed grass-legume cover. *J. Wildl. Manage.* 40(1) :39-49.
- Farrar, J. 1990. Wildflowers of Nebraska and the Great Plains. NEBRASKALand Magazine, Nebraska G.&P. Commission. 216 pp.
- Fredrickson, L. 2001. Crescent Lake National Wildlife Refuge trip Report, September 19-20.
- Fritz, M., J.S. Stubbendieck, and W. Jobman. 1992. Recovery Plan - Blowout Penstemon. 40 pp.
- Gjersing, F.M. 1975. Wildlife Production in Relation to Rest-Rotation Grazing. *J. Range Manage.* 28(1): 37-42.
- Hopton, J. 1996. Grasshopper Sparrow Habitat Selection in Garden County, Nebraska. Unpublished data. Crescent Lake NWR, Ellsworth, NE.
- Hrabik, R.A. 1989. Fishes in An Atlas of the Sandhills. Resource Atlas No.5. Conservation and Survey Division. University of Nebraska - Lincoln. 265pp.
- Imler, R.H. 1942. Waterfowl Nesting Studies and Experimental Bullsake Control, Crescent Lake Refuge, Nebraska and Lacreek Refuge, South Dakota in 1940. Unpublished rept. U.S. Fish & Wildlife Service files. 37 pp.
- Iverson, J. Annual Study Reports. unpublished data. Crescent Lake NWR, Ellsworth, NE.
- Jones, J.K. 1964. Distribution and taxonomy of mammals of Nebraska. *Univ. Of Kansas Publ., Museum of Natural History*, 16:1-356.
- Jones, R.E. 1963. Identification and Analysis of Lessor and Greater Prairie Chicken Habitat. *J. Wildli. Manage.* 27(4): 257-778.
- Kantrud, H.A. 1982. R. Kologiski 1982. Effects of Soils and Grazing on Breeding Birds of Uncultivated Upland Grasslands of the Northern Great Plains. U.S. Fish and Wildl. Serv. Rep.: 15.ii+33 pp. WR 186.
- Keeler, K.H., A.T. Harrison, and L.S. Vescio. 1980. The flora and sandhills prairie communities of Arapaho Prairie, Arthur County, Nebraska. *Prairie Nat.* 12:65-78.
- Kirsch, L.M. and A.D. Kruse 1973. *Proc. Tall Timbers Fire Ecology Conf.* 12:289-303
- Kirsch, L. M. 1973. Habitat Management Considerations for Prairie Chickens. *Wildl. Soc. Bull.* 2(3): 124-129.
- Kirsch, L.M. 1978. Grazing and Haying Effects on Habitats of Upland Nesting Birds. *Trans. of 43rd No. Am. Wildlife and Natural Resources Conf.* 43:486-497.
- LaGrange, T. 1997. Guide to Nebraska's wetlands and their conservation needs. Nebraska Game and Parks Commission, Lincoln, Nebraska. 34 pp.
- Layton, M.H., C.R. Buzzard, and H.E. Hoy. 1956. A Soil Survey of Cherry County, Nebraska. U.S. Department of Agriculture, Soil Conservation Service. 91 pp.
- Lehman, V.W. 1963. Status of Attwater's Prairie Chicken. *J. Wildl. Manage.* 27(4): 712-725
- McMurtrey, M.S. and Robert Craig. 1969. Job no. K1. USFWS. 16 pp.
- Natural Resource Conservation Service. 1995. Range Site and Condition Survey-Crescent Lake NWR. Unpublished data. Crescent Lake NWR, Ellsworth, NE.
- Oosting, J.H. 1948. The study of plant communities. W.H. Freeman and Company. 440 pp.
- Panhandle Area Development District. Undated (ca. 1998). Economic Development Report. Gering, NE. 10 pp.
- Prairie Grouse Technical Conference. 1998. Unpublished proceedings. Crookston, MN.
- Ryder, R.A. 1980. Effects of Grazing on Bird Habitats. U.S. For. Serv. Gen. Tech. Rep: Int-86:51-66.

- Schwartz, C.W. 1945. The Ecology of the Prairie Chicken in Missouri. Univ. of Missouri Studies 20(1): 1-99.
- Tolstead, W.L. 1942. Vegetation in the Northern Part of Cherry County, Nebraska. Ecol. Monog. 12:255-292.
- U.S. Fish & Wildlife Service and Canadian Wildlife Service. 1986. North American Waterfowl Management Plan.
- U.S. Fish & Wildlife Service. 1986. Sandhills Wetlands-a Special Investigation. Unpublished document. 20 pp.
- U.S. Fish & Wildlife Service. 1982. Refuge Manual, 8RM 9.5 (B)
- U.S. Fish & Wildlife Service. An ecosystem approach to fish and wildlife conservation. March 1994
- Vichmeyer, G. 1941. The Present Status of the Greater Prairie Chicken and Sharp-tailed Grouse in the Sandhills Region of Nebraska. Nebr. Bird Rev. 9(1): 1-7
- Wilhite, D.A. and K.G. Hubbard, 1989. Climate. Pages 17-28 in Breed, A. and Flowerday, C., Ed. Sec. Edition. An Atlas of the Sandhills. Cons. and Sur. Div., Insti. Agr. and Nat. Resource. Univ. Nebr.- Lincoln. 265 pp.
- Yeatter, R.R. 1963. Population Responses of Prairie Chickens to Land Use Changes in Illinois. J. Wildl. Manage. 27(4) 739-757.
- Additional References not Cited in Text**
- Belrose, F.S. 1980. Ducks, Geese, and Swans of North America. Stackpole books, Harrisburg, PA, 540 pp.
- Boydeck, R.K. 1997 Habitat management for sharptail grouse on private lands in Manitoba, Canada. Wildlife Biology, Vol. 3/4.
- Bragg, T.B. 1994 (in press). The physical environment of Great Plains Grasslands. From Keeler, K.A., A. Joren (editors), Oxford University Press, New York.
- Hoffman, R.W. and G.M. Beauprez. 1997. Reintroduction of greater prairie chickens in north-central Colorado. Wildlife Biology Vol. 3/4
- Kuzila, M. 1989. Soil association and series. in An Atlas of the Sandhills. Resource Publication 5. Conservation and Survey Division. University of Nebraska - Lincoln. 265pp.
- Miller, S.M. 1990. Land development and use. in An atlas of the Sandhills. Resource Atlas No.5a. Conservation and Survey Division. University of Nebraska - Lincoln 265 pp.
- Mitchell, L. and C. Wolfe. 1984. Prairie grouse in Nebraska. NEBRASKALand Magazine, Nebr. Game and Parks Comm. 15 pp.
- Natural Resource Conservation Service. 1999. Soil Survey of Garden County Nebraska. 273 pp.
- U.S. Fish & Wildlife Service. Valentine National Wildlife Refuge Draft Comprehensive Conservation Plan and Environmental Assessment. April 1999. 74 pp.
- Weaver, J.E. 1961. The living network in prairie soils. The Botanical Gazette 123(1):16-28

Appendix C. Legal and Policy Guidance

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.

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 plants. 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 non-governmental 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 socio-economic, 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. The State of Nebraska's State Historic Preservation Officer will be consulted prior to removal of the present bunkhouse to be replaced with a new building. This house was constructed by the CCC in the 1930s to serve as the manager's residence and office.

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.

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

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 5,000 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 D. Operation and Maintenance Needs

RONs

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

* Complex denotes project or MMS need is shared with North Platte NWR

** Only after Objective to reintroduce bison is accepted and conditions met as outlined in the Fish and Wildlife Section under the "reintroduce bison" objective

Refuge Operation Needs System (RONs) Projects			
Project	Links to CCP Goal	FTE Cost (2000 dollars)	Other Costs (2000 dollars)
Biologist - Complex *	1-10, 15	\$58,000	\$75,000
Assistant Refuge Manager	1-15	48,000	75,000
Maintenance Position	1-15	43,000	75,000
Public Use Specialist	11, 12, 14	58,000	80,000
Blowout Penstemon Habitat	1-4, 7, 8, 15	16,000	66,000
Noxious Weed Control	1-8, 10		50,000
Wilderness Area Restoration	1-4, 8, 11, 13, 14	17,000	155,000
Office/Visitor Center Expansion	11, 14		85,000
Seasonal Firefighters	1-10, 12-15	177,000	84,000
Grassland Study	1-10	20,000	34,000
Bison Reintroduction **	1-8, 10, 11, 14	39,000	241,000
Law Enforcement Center	1-15	52,000	75,000
Habitat Mgt - Wet Meadows	4, 5, 8, 10	16,000	51,000
Habitat Mgt - Wetlands	4, 9, 11	43,000	77,000
Carp Control	4, 9, 14, 15	16,000	500,000
Archaeological Inventory	12, 14		255,000
TOTALS		\$603,000	\$1,978,000

MMS

The Maintenance Management System (MMS) documents, Service-wide, facility and equipment deficiencies, justifies budget requests for maintenance needs, and provides a basis for management decision-making. The Crescent Lake NWR maintenance backlog is \$3,339,000. The following MMS projects for the Refuge are listed in priority order. MMS projects not related to this document are not shown here. More specific information about each maintenance need can be found in the database on file at the Refuge headquarters.

Priority MMS Needs and Costs (2000 dollars)		
Project	Links to CCP Goal	Cost
Replace residences & office roofs (7 total)	13	\$77,000
Replace phone lines (system)	13, 14	115,000
Replace two information kiosks	11, 14	40,000
Repair windmills, tanks, wells	1, 4-7, 10, 13	440,000
Repair water supply ditch (14 miles)	4, 9, 11, 14	140,000
Repair public use gravel roads (5.4 miles)	11, 13-15	27,000
Replace east storage building	13	235,000
Repair water control structures (8)	1, 4, 9, 13, 15	80,000

Appendix E. Compatibility Determinations

Station Name: Crescent Lake National Wildlife Refuge

Date Established: 1931

Establishing and Acquisition Authorities: Executive Order No. 5579 of March 16, 1931

Purposes for which Refuge was established:

“... reserved and set apart ... as a refuge and breeding ground for birds and wild animals.”

“... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds” 16 USC § 715D (Migratory Bird Conservation Act).

National Wildlife Refuge System Mission: The mission of the National Wildlife Refuge System is “to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

Description of Proposed Use: Wildlife Observation, Wildlife Photography, Interpretation, and Environmental Education

Public use of the Refuge is limited by poor access. Wildlife observation and photography are very small portions of the total use; however, this low visitation results in one of the prime features about the Refuge the public comments on most consistently, the peace and quiet, and the solitude that can be found here.

Interpretation and education are also limited by poor access. There are particular groups that visit the Refuge year-after-year, but their numbers are not great. It is a major undertaking for a class to visit the Refuge.

The CCP proposes to continue the above uses and improve interpretation through the following actions:

- Establish one or two interpretative walking trails.
- Construct pullouts on the current auto tour route to provide a safer locations from which to view the Refuge. Relocating the current auto tour route from the County road to a secondary Refuge road would be desirable but not affordable at this time.

Availability of Resources

Sufficient resources are available to continue present programs. The walking trails would require some additional funding. The auto tour route change would be dependent upon providing a road that is capable of supporting all classes of vehicles in fair weather. Therefore, adding pullouts seems to be the best approach at this time.

Anticipated Impacts of the Use

Some areas of the Refuge will receive slightly higher use. It is not anticipated that this will adversely impact wildlife in any significant way.

Justification

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

Determination

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

Stipulations Necessary to Ensure Compatibility:

- ✓ The closed area where no public use at all is permitted will remain. This area provides almost complete freedom from disturbance for the most secretive of animals.
- ✓ Temporary closures and/or restrictions about exiting vehicles are tools that can be applied should such forms of public use prove detrimental to a particular species.

Description of Proposed Use:

Fishing

Fishing is allowed in Island, Smith, and Crane Lakes. Island is open year-round, Smith and Crane Lakes are open only during the winter months. Use of boats is limited to Island Lake and gas powered motors are prohibited. Fishing is the most popular recreational activity on the Refuge, and occurs undiminished through most winters when ice cover permits.

The CCP proposes to continue the present uses but places an upper limit of 100 anglers per day on any body of water.

Availability of Resources

Sufficient resources are available to continue the existing fishing program. Crane Lake already has fish and will only require signs, parking access, and minor law enforcement activity. Limiting public use will probably not be necessary for many years. Use of options like reducing bag limits or catch-and-release regulations are tools that can be employed to limit use that would not require excessive staff effort as would more drastic measures like reservation systems.

Anticipated Impacts of the Use

Some wildlife disturbance is created by fishing activity. Disturbance during the summer is limited to Island Lake and mitigated by boat restrictions. Smith and Crane Lakes fishing causes almost no wildlife impacts since nearly all water-dependent wildlife migrates from the Refuge in the winter.

Justification

Based on the biological impacts described in the CCP and Environmental Assessment it is determined that recreational fishing within the Refuge will not materially interfere with or detract from the purposes for which the Refuge was established. Further, fishing has been identified as a priority public use in the National Wildlife Refuge System Improvement Act of 1997 when this activity is compatible with the Refuge purpose. However, should Smith or Crane Lakes winter-kill, an evaluation will be done by Refuge staff prior to any restocking of fish.

Determination

Recreational fishing as described **is compatible**.

Stipulations Necessary to Ensure Compatibility

- ✓ Crane and Smith Lakes open only in winter months.
- ✓ Motor and boat restrictions.
- ✓ Limit total anglers to 100 per day on any one body of water.

Description of Proposed Use:

Hunting

At present, hunting is allowed on the Refuge for deer and upland birds. Hunting is second in popularity only to fishing. The opening of deer season is the highest public use day on the Refuge. The CCP proposes to continue the present uses and add waterfowl hunting at one lake.

The plan also proposes to limit peak hunter numbers to not more than 150 hunters per day.

Availability of Resources

Resources are currently available for the present hunting program. To add one new use will only require a change in the brochures and a limited amount of additional law enforcement since the season will be concurrent with existing seasons.

Anticipated Impacts of the Use

Hunting removes individual animals from the population and causes some wildlife disturbance. This disturbance is limited to fall and winter months when most wildlife have completed critical life processes and are migrating or absent from the Refuge. State and Federal game harvest regulations are in effect to assure perpetual populations of game animals and to also prevent populations from reaching unreasonable numbers resulting in die-offs or nuisance problems.

Justification

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

Determination

Hunting as described **is compatible**.

Stipulations Necessary to Ensure Compatibility

- ✓ The present closed area to remain in effect to provide wildlife viewing opportunity even during open seasons.
- ✓ Limit peak numbers of hunters to a maximum of 150 on any given day. Reaching this limit is probably well into the future, but it will ensure that the basic quality of solitude will not be severely compromised.

Description of Proposed Use: Economic Management Tools (Grazing and Haying)

Current management activities that employ tools with an economic impact will be continued. Because of the annual bidding process as currently in practice, the refuge manager has complete control of these tools to use in a manner most effective for habitat improvement.

There are no changes in the current uses of these tools proposed in the CCP, other than replacing livestock with bison in the proposed wilderness unit.

Anticipated Impacts of the Use

Grazing and haying are used exclusively for the maintenance or improvement of habitat. The refuge manager has the flexibility to use these tools only as necessary, therefore, all impacts of these uses should be beneficial.

Replacement of livestock with bison will have impacts upon the grassland habitat in the proposed Wilderness Area. The CCP and Environmental Assessment discuss these impacts. It is anticipated that these impacts can be minimized through management and that the aesthetic and scientific benefits of such a natural situation will outweigh any slight habitat degradation.

Justification

Upland habitat would deteriorate without the use of a full range of management tools. Grasslands have evolved with fire and grazing which maintain the vigor of the habitat. Those wildlife species dependent upon grassland types not provided on commercially used rangeland find less and less habitat available, and maintenance of habitat quality on the Refuge is imperative.

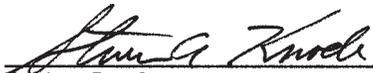
Determination

Grazing and haying **are compatible.**

Stipulations Necessary to Ensure Compatibility

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

Signatures:



Project Leader

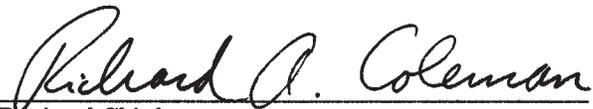
Date August 12, 2002

Concurrence:



Refuge Supervisor

Date 8-15-02



Regional Chief
National Wildlife Refuge System

Date 8/15/02

Appendix F. Crescent Lake National Wildlife Refuge Species Lists

Birds

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

Loons

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*

Cormorants

- Double-crested Cormorant *Phalacrocorax auritus*

Bitterns, Herons, and Eagles

- 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*
- Yellow-crowned Night-Heron *Nycticorax violaceus*

Ibis, Stork

White-faced Ibis *Plegadis chihi*

New World Vultures

- Turkey Vulture *Cathartes aura*

Swans, Geese and Ducks

- Trumpeter Swan *Cygnus buccinator*
- Tundra Swan *Cygnus columbianus*
- Greater White-fronted Goose *Anser albifrons*
- Snow Goose *Chen caerulescens*
- Ross' Goose *Chen rossii*
- Brant *Branta leucopsis*
- Canada Goose *Branta canadensis*
- Wood Duck *Aix sponsa*
- Gadwall *Anas strepera*
- 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*

- Long-tailed Duck
- Surf Scoter
- White-winged Scoter
- Bufflehead
- Common Goldeneye
- Barrow's Goldeneye
- Hooded Merganser
- Common Merganser
- Red-breasted Merganser
- Ruddy Duck

- *Clangula hyemalis*
- *Melanitta perspicillata*
- *Melanitta fusca*
- *Bucephala albeola*
- *Bucephala clangula*
- *Bucephala islandica*
- *Lophodytes cucullatus*
- *Mergus merganser*
- *Mergus serrator*
- *Oxyura jamaicensis*

Osprey, Kites, Hawks, and 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 and Caracaras

- American Kestrel *Falco sparverius*
- Merlin *Falco columbarius*
- Gryfalcon *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*
- Northern Bobwhite *Colinus virginianus*

Rails

- Black Rail *Laterallus jamaicensis*
- Virginia Rail *Rallus limicola*
- Sora *Porzana carolina*
- American Coot *Fulica americana*

Cranes

Sandhill Crane *Grus canadensis*

Plovers

- Black-bellied Plover *Pluvialis squatarola*
- American Golden Plover *Pluvialis dominica*
- Semipalmated Plover *Charadrius semipalmatus*
- Piping Plover *Charadrius melodus*
- Killdeer *Charadrius vociferus*

Stilts and Avocets

- American Avocet *Recurvirostra americana*
- Black-necked Stilt *Himantopus mexicanus*

Sandpipers and Phalaropes

- Greater Yellowlegs *Tringa melanoleuca*
- Lesser Yellowlegs *Tringa flavipes*
- Solitary Sandpiper *Tringa solitaria*
- Willet *Catoptrophorus semipalmatus*
- Spotted Sandpiper *Actitis macularia*
- Upland Sandpiper *Bartramia longicauda*
- Whimbrel *Numenius phaeopus*
- Long-billed Curlew *Numenius americanus*
- Hudsonian Godwit *Limosa haemastica*
- Marbled Godwit *Limosa fedoa*
- Red Knot *Calidris canutus*

Sanderling	<i>Calidris alba</i>	Tyrant Flycatchers	
Semipalmated Sandpiper	<i>Calidris pusilla</i>	Olive-sided Flycatcher	<i>Contopus borealis</i>
Western Sandpiper	<i>Calidris mauri</i>	○ Western Wood-Pewee	<i>Contopus sordidulus</i>
Least Sandpiper	<i>Calidris minutilla</i>	Eastern Wood-pewee	<i>Contopus virens</i>
White-rumped Sandpiper	<i>Calidris fuscicollis</i>	Willow Flycatcher	<i>Empidonax traillii</i>
Baird's Sandpiper	<i>Calidris bairdii</i>	Least Flycatcher	<i>Empidonax minimus</i>
Pectoral Sandpiper	<i>Calidris melanotos</i>	Eastern Phoebe	<i>Sayornis phoebe</i>
Dunlin	<i>Calidris alpina</i>	○ Say's Phoebe	<i>Sayornis saya</i>
Stilt Sandpiper	<i>Calidris himantopus</i>	Great Crested Flycatcher	<i>Myiarchus crinitus</i>
Short-billed Dowitcher	<i>Limnodromus griseus</i>	Cassin's Kingbird	<i>Tyrannus vociferans</i>
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>	● Western Kingbird	<i>Tyrannus verticalis</i>
● Common Snipe	<i>Gallinago gallinago</i>	● Eastern Kingbird	<i>Tyrannus tyrannus</i>
● Wilson's Phalarope	<i>Phalaropus tricolor</i>		
Red-necked Phalarope	<i>Phalaropus lobatus</i>		
Skuas, Jaegers, Gulls, and Terns		Shrikes	
Franklin's Gull	<i>Larus pipixcan</i>	Loggerhead Shrike	<i>Lanius ludovicianus</i>
Bonaparte's Gull	<i>Larus philadelphia</i>	Northern Shrike	<i>Lanius excubitor</i>
Ring-billed Gull	<i>Larus delawarensis</i>		
California Gull	<i>Larus californicus</i>	Vireos	
Herring Gull	<i>Larus argentatus</i>	● Bell's Vireo	<i>Vireo bellii</i>
Glaucous Gull	<i>Larus hyperboreus</i>	Solitary Vireo	<i>Vireo solitarius</i>
Sabine's Gull	<i>Xema sabini</i>	● Warbling Vireo	<i>Vireo gilvus</i>
Caspian Tern	<i>Sterna caspia</i>	Philadelphia Verio	<i>Vireo Philadelphicus</i>
Common Tern	<i>Sterna hirundo</i>	Red-eyed Vireo	<i>Vireo olivaceus</i>
● Forster's Tern	<i>Sterna forsteri</i>		
Least Tern	<i>Sterna antillarum</i>	Crows, Jays and Magpies	
● Black Tern	<i>Chlidonias niger</i>	Gray Jay	<i>Perisoreus canadensis</i>
		● Blue Jay	<i>Cyanocitta cristata</i>
		Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>
		Black-billed Magpie	<i>Pica pica</i>
		American Crow	<i>Corvus brachyrhynchos</i>
Pigeons and Doves			
Rock Dove	<i>Columba livia</i>	Lark	
● Mourning Dove	<i>Zenaida macroura</i>	● Horned Lark	<i>Eremophila alpestris</i>
Cuckoos and Anis		Swallows	
○ Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	Purple Martin	<i>Progne subis</i>
● Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	● Tree Swallow	<i>Tachycineta bicolor</i>
		Violet-green Swallow	<i>Tachycineta thalassina</i>
Barn Owls		○ Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
● Barn Owl	<i>Tyto alba</i>	Bank Swallow	<i>Riparia riparia</i>
Typical Owls		● Cliff Swallow	<i>Petrochelidon pyrrhonota</i>
● Eastern Screech Owl	<i>Otus asio</i>	● Barn Swallow	<i>Hirundo rustica</i>
● Great Horned Owl	<i>Bubo virginianus</i>		
Snowy Owl	<i>Nyctea scandiaca</i>	Titmice and Chickadees	
● Burrowing Owl	<i>Athene cunicularia</i>	● Black-capped Chickadee	<i>Poecile atricapillus</i>
Long-eared Owl	<i>Asio otus</i>		
● Short-eared Owl	<i>Asio flammeus</i>	Nuthatches	
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	Red-breasted Nuthatch	<i>Sitta canadensis</i>
Nightjars		White-breasted Nuthatch	<i>Sitta carolinensis</i>
● Common Nighthawk	<i>Chordeiles minor</i>		
Common Poorwill	<i>Phalaenoptilus nuttallii</i>	Creepers	
Swifts		Brown Creeper	<i>Certhia americana</i>
Chimney Swift	<i>Chaetura pelagica</i>		
Hummingbirds		Wrens	
Hummingbird	<i>Archilochus spc</i>	Rock Wren	<i>Salpinctes obsoletus</i>
		● House Wren	<i>Troglodytes aedon</i>
		● Marsh Wren	<i>Cistothorus palustris</i>
Kingfisher		Kinglets	
Belted Kingfisher	<i>Ceryle alcyon</i>	Golden-crowned Kinglet	<i>Regulus satrapa</i>
		Ruby-crowned Kinglet	<i>Regulus calendula</i>
Woodpeckers		Thrushes	
● Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	Eastern Bluebird	<i>Sialia sialis</i>
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>	Mountain Bluebird	<i>Sialia currucoides</i>
● Downy Woodpecker	<i>Picoides pubescens</i>	Townsend's Solitaire	<i>Myadestes townsendi</i>
Hairy Woodpecker	<i>Picoides villosus</i>	Veery	<i>Catharus fuscescens</i>
● Northern Flicker	<i>Colaptes auratus</i>	Gray-cheeked Thrush	<i>Catharus minimus</i>
		Swainson's Thrush	<i>Catharus ustulatus</i>
		Hermit Thrush	<i>Catharus guttatus</i>
		Wood Thrush	<i>Hylocichla mustelina</i>

● American Robin	<i>Turdus migratorius</i>	Cardinals, Grosbeaks, and Allies	Northern Cardinal	<i>Cardinalis cardinalis</i>
Varied Thrush	<i>Ixoreus naevius</i>		Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>
Mimic Thrushes			Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>
Gray Catbird	<i>Dumetella carolinensis</i>	● Blue Grosbeak		<i>Guiraca caerulea</i>
Northern Mockingbird	<i>Mimus polyglottos</i>	Lazuli Bunting		<i>Passerina amoena</i>
Sage Thrasher	<i>Oreoscoptes montanus</i>	Indigo Bunting		<i>Passerina cyanea</i>
● Brown Thrasher	<i>Toxostoma rufum</i>	● Dickcissel		<i>Spiza americana</i>
Starlings		Blackbirds and Orioles		
European Starling	<i>Sturnus vulgaris</i>	● Bobolink		<i>Dolichonyx oryzivorus</i>
Wagtails and Pipits		● Red-winged Blackbird		<i>Agelaius phoeniceus</i>
American (Water) Pipit	<i>Anthus rubescens</i>	● Eastern Meadowlark		<i>Sturnella magna</i>
Waxwings		● Western Meadowlark		<i>Sturnella neglecta</i>
Bohemian Waxwing	<i>Bombycilla garrulus</i>	● Yellow-headed Blackbird		
Cedar Waxwing	<i>Bombycilla cedrorum</i>			<i>Xanthocephalus xanthocephalus</i>
Wood Warblers		Rusty Blackbird		<i>Euphagus carolinus</i>
Tennessee Warbler	<i>Vermivora peregrina</i>	Brewer's Blackbird		<i>Euphagus cyanocephalus</i>
Orange-crowned Warbler	<i>Vermivora celata</i>	● Common Grackle		<i>Quiscalus quiscula</i>
● Yellow Warbler	<i>Dendroica petechia</i>	● Brown-headed Cowbird		<i>Molothrus ater</i>
Magnolia Warbler	<i>Dendroica magnolia</i>	● Orchard Oriole		<i>Icterus spurius</i>
Black-throated Blue Warbler	<i>Dendroica caerulescens</i>	Baltimore Oriole		<i>Icterus galbula</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>	● Bullock's oriole		<i>Icterus galbula</i>
Townsend's Warbler	<i>Dendroica townsendi</i>	Finches		
Black-throated Green Warbler	<i>Dendroica Verens</i>	Purple Finch		<i>Carpodacus purpureus</i>
Blackburnian Warbler	<i>Dendroica fusca</i>	House Finch		<i>Carpodacus mexicanus</i>
Bay-breasted Warbler	<i>Dendroica castanea</i>	Cassin's Finch		<i>Carpodacus cassinii</i>
Blackpoll Warbler	<i>Dendroica striata</i>	Red Crossbill		<i>Loxia curvirostra</i>
Black-and-white Warbler	<i>Mniotilta varia</i>	Common Redpoll		<i>Carduelis flammea</i>
American Redstart	<i>Setophaga ruticilla</i>	Pine Siskin		<i>Carduelis pinus</i>
Worm-eating Warbler	<i>Helmitheros vermivorus</i>	● American Goldfinch		<i>Carduelis tristis</i>
Ovenbird	<i>Seiurus aurocapillus</i>	Evening Grosbeak		<i>Coccothraustes vespertinus</i>
Northern Waterthrush	<i>Seiurus aurocapillus</i>	Old World Sparrows		
MacGillivray's Warbler	<i>Oporornis tolmiei</i>	● House Sparrow		<i>Passer domesticus</i>
● Common Yellowthroat	<i>Geothlypis trichas</i>			
Wilson's Warbler	<i>Wilsonia pusilla</i>			
Yellow-breasted Chat	<i>Icteria virens</i>			
Tanagers				
Scarlet Tanager	<i>Piranga olivacea</i>			
Western Tanager	<i>Piranga ludoviciana</i>			
Sparrows and Towhees				
Green-tailed Towhee	<i>Pipilo chlorurus</i>			
Western Towhee	<i>Pipilo erthrophthalmus</i>			
Cassin's Sparrow	<i>Aimophila cassinii</i>			
American Tree Sparrow	<i>Spizella arborea</i>			
Chipping Sparrow	<i>Spizella passerina</i>			
Clay-colored Sparrow	<i>Spizella pallida</i>			
Brewer's Sparrow	<i>Spizella breweri</i>			
Field Sparrow	<i>Spizella pusilla</i>			
● Vesper Sparrow	<i>Poocetes gramineus</i>			
● Lark Sparrow	<i>Chondestes grammacus</i>			
● Lark Bunting	<i>Calamospiza melanocorys</i>			
○ Savannah Sparrow	<i>Passerculus sandwichensis</i>			
Baird's Sparrow	<i>Ammodramus bardi</i>			
● Grasshopper Sparrow	<i>Ammodramus savannarum</i>			
Fox Sparrow	<i>Passerella iliaca</i>			
Song Sparrow	<i>Melospiza melodia</i>			
Lincoln's Sparrow	<i>Melospiza lincolni</i>			
Swamp Sparrow	<i>Melospiza georgiana</i>			
White-throated Sparrow	<i>Zonotrichia albicollis</i>			
Harris' Sparrow	<i>Zonotrichia querula</i>			
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>			
Dark-eyed Junco	<i>Junco hyemalis</i>			
McCown's Longspur	<i>Calcarius mccownii</i>			
Lapland Longspur	<i>Calcarius lapponicus</i>			
Chestnut-collared Longspur	<i>Calcarius ornatus</i>			
Snow Bunting	<i>Plectrophenax nivalis</i>			

Mammals

Shrews

Masked Shrew *Sorex cinereus*

Moles

Eastern Mole *Scalopus aquaticus*

Bats

Big Brown Bat *Eptesicus fuscus*

Hares and Rabbits

Eastern Cottontail *Sylvilagus floridanus*

Black-tailed Jackrabbit *Lepus californicus*

White-tailed Jackrabbit *Lepus townsendii*

Ground Squirrels

Thirteen-lined Ground Squirrel
Spermophilus tridecemlineatus

Pocket Gophers

Plains Pocket Gopher *Geomys bursarius*

Mice and Rats

Plains Pocket Mouse *Perognathus flavescens*

Silky Pocket Mouse *Perognathus flavus*

Ord's Kangaroo Rat *Dipodomys ordii*

Western Harvest Mouse *Reithrodontomys megalotis*

Plains Harvest Mouse *Reithrodontomys montanus*

White-footed Mouse *Peromyscus leucopus*

Deer Mouse *Peromyscus maniculatus*

Northern Grasshopper Mouse *Onychomys leucogaster*

Bushytail Woodrat *Neotoma cinerea*

Meadow Jumping Mouse *Zapus hudsonius*

Voles

Prairie Vole *Microtus ochrogaster*

Meadow Vole *Microtus pennsylvanicus*

Muskrat

Common Muskrat *Ondatra zibethicus*

Porcupine

Common Porcupine *Erethizon dorsatum*

Coyote and Fox

Coyote *Canis latrans*

Swift Fox *Vulpes velox*

Red Fox *Vulpes fulva*

Raccoon

Common Raccoon *Procyon lotor*

Weasel and Mink

Long-tailed Weasel *Mustela frenata*

Least Weasel *Mustela nivalis*

Mink *Mustela vison*

Badger

American Badger *Taxidea taxus*

Skunks

Striped Skunk *Mephitis mephitis*

Spotted Skunk *Spilogale putorius*

Deer and Antelope

Mule Deer *Odocoileus hemionus*

White-tailed Deer *Odocoileus virginianus*

Pronghorn *Antilocapra americana*

Extirpated

Black-footed Ferret

Blacktail Prairie Dog

Elk

Bison

Plains Grizzly Bear

Plains Wolf

Mustela nigripes

Cynomys ludovicianus

Cervus canadensis

Bison bison

Ursus horribilis

Canis lupus

Amphibians and Reptiles

Salamander

Tiger Salamander *Ambystoma tigrinum*

Frogs and Toads

Woodhouse's Toad *Bufo woodhousii*

Plains Spadefoot *Spea bombifrons*

Western Chorus Frog *Pseudacris triseriata*

Bullfrog *Rana catesbeiana*

Northern Leopard Frog *Rana pipiens*

Turtles

Common Snapping Turtle *Chelydra serpentina*

Painted Turtle *Chrysemys picta*

Yellow Mud Turtle *Kinosternon flavescens*

Ornate Box Turtle *Terrapene ornata*

Lizards and Skinks

Prairie Racerunner *Cnemidophorus sexlineatus*

Lesser Earless Lizard *Holbrookia maculata*

Many-lined Skink *Eumeces multivirgatus*

Northern Prairie Lizard *Sceloporus undulatus*

Snakes

Eastern Yellow-bellied Racer *Coluber constrictor*

Plains Hognose Snake *Heterodon platyrinos*

Bullsnake *Pituophis catenifer*

Plains Garter Snake *Thamnophis radix*

Red-sided Garter Snake *Thamnophis sirtalis*

LIST OF HERBARIUM SPECIMENS
annotated and corrected by Steven B. Rolfsmeier,
2 October 1992 Note: This is not a complete list of flora at
Crescent Lake NWR.

DIVISION CHLOROPHYTA CHARACEAE

Chara sp. muskgrass

DIVISION PTERIDOPHYTA

EQUISETACEAE (Horsetail Family)
Equisetum laevigatum A. Br. smooth scouringrush

DIVISION MAGNOLIOPHYTA

ACERACEAE (Maple Family)
Acer negundo L. box elder

ALISMATACEAE (Water-plantain Family)
Alisma gramineum J. G. Gmel. water plantain
Sagittaria cuneata Sheld. arrowhead
Sagittaria latifolia Willd. arrowhead

AMARANTHACEAE (Amaranth Family)
Amaranthus arenicola. I.M. Johnst. sandhills pigweed
Froelichia floridana (nutt.) Moq. snake cotton

APIACEAE [UMBELLIFERAE] (Parsley Family)
Cicuta maculata L.. water hemlock
Conium maculatum L. poison hemlock
Sium suave Walt. water parsnip

APOCYNACEAE (Dogbane Family)
Apocynum cannabinum L. Indian hemp, hemp dogbane

ASCLEPIADACEAE (Milkweed Family)
Asclepias arenaria Torr. sand milkweed
Asclepias incarnata L. swamp milkweed
Asclepias speciosa. Torr. showy milkweed

ASTERACEAE [COMPOSITAE] (Aster Family)
Ambrosia acanthicarpa Hook. annual bursage
Ambrosia psilostachya DC. western ragweed
Anthemis cotula L. dog fennel
Artemisia campestris L. western sagewort
Artemisia frigida Willd. fringed sagebrush
Artemisia ludoviciana Nutt.. white sage
Aster Sp.
Bidens cernua L. nodding beggar-ticks
Bidens frondosa L. beggar-ticks
Bidens vulgata Greene tall beggar-ticks
Chrysopsis villosa (Pursh) Nutt. golden aster
Cirsium arvense (L.) Scop. Canada thistle
Conyza canadensis (L.) Cronq. horseweed, mare's tail
Erigeron bellidiastrum Nutt. western fleabane
Euthamia gymnospermoides Greene viscid euthamia
Helianthus maximilianii Schrad. Maximilian sunflower
Helianthus petiolaris Nutt. prairie sunflower
Iva xanthifolia Nutt. marsh elder
Lactuca oblongifolia Nutt. blue lettuce
Lactuca serriola L. prickly lettuce
Liatris punctata Hook. dotted gayfeather
Liatris squarrosa (L.) Michx. smooth gayfeather
Lygodesmia juncea (Pursh) Hook. skeletonweed
Machaeranthera linearis Greene hoary aster
Palafoxia sphacelata (Nutt.) Cory
Ratibida columnifera (Nutt.) Woot. & Standl. prairie coneflower
Rudbeckia hirta L. black-eyed susan
Senecio. tridenticulatus Rydb. prairie ragwort
Shinersoseris rostrata (Gray) Tomb annual skeletonweed
Solidago canadensis L. Canada goldenrod
Solidago missouriensis Nutt. prairie goldenrod

Thelesperma filifolium (Hook.) Gray greenthread
Townsendia exscapa (Richards.) Porter easter daisy

BORAGINACEAE (Borage Family)
Cryptantha fendleri (Gray) Greene cryptantha
Lithospermum carolinense (Walt.) MacM. hoary puccoon
Lithospermum incisum Lehm. fringed puccoon

BRASSICACEAE (Mustard Family)
Capsella bursa-pastoris (L.) Medic. shepherd's purse
Lepidium densiflorum Schrad. pepperglass
Lesquerella ludoviciana (Nutt.) S. Wats. bladderpod
Rorippa palustris (L.) Bess. bog yellow cress
Sisymbrium altissimum L.. tumbling mustard
Thelypodium integrifolium (Nutt.) Endl. thelypody

CAMPANULACEAE (Bellflower Family)
Lobelia siphilitica L. blue lobelia

CAPPARACEAE (Caper Family)
Cleome serrulata Pursh Rocky Mountain bee plant

CAPRIFOLIACEAE (Honeysuckle Family)
Symphoricarpos occidentalis Hook. western snowberry, buckbrush

CARYOPHYLLACEAE (Carnation Family)
Saponaria officinalis L. bouncing bet
Silene noctiflora L. night-flowering catchfly

CHENOPODIACEAE (Goosefoot Family)
Chenopodium album L. lamb's quarters
Chenopodium rubrum L. alkali blite
Corispermum nitidum Kit. bugseed
Salsola collina Pall. Russian thistle

COMMELINACEAE (Spiderwort Family)
Commelina erecta L. erect dayflower
Tradescantia occidentalis (Britt.) Smyth spiderwort

CONVOLVULACEAE (Morning glory Family)
Evolvulus nuttallianus R. & S. evolvulus
Ipomoea leptophylla Torr. bush morning glory

CUSCUTACEAE (Dodder Family)
Cuscuta indecora Choisy large alfalfa dodder

CYPERACEAE (Sedge Family)
Carex atherodes Spreng.
Carex emoryi Dew.
Carex heliophila Mack. sun sedge
Carex hystericina Muhl. ex Willd. bottlebrush sedge
Carex interior Bailey
Carex lacustris Willd. ripgut
Carex lanuginosa Michx. woolly sedge
Carex nebrascensis Dew. Nebraska sedge
Carex praegracilis W. Boott. clustered field sedge
Carex scoparia Schkuhr ex Willd. broom sedge
Carex stipata Muhl. sawbeak sedge
Cyperus engelmannii Steud.
Cyperus rivularis Kunth. brook flatsedge
Cyperus schweinitzii Torr. Schweinitz flatsedge
Cyperus strigosus L. straw-colored nutsedge
Scirpus acutus Muhl. hardstem bulrush
Scirpus maritimus L. prairie bulrush
Scirpus pallidus (Britt.) Fern. darkgreen bulrush
Scirpus pungens Vahl three-square bulrush
Scirpus validus Vahl softstem bulrush

EUFORBIACEAE (Spurge Family)
Euforbia geyeri Engelm. Geyer's spurge
Euforbia glyptosperma Engelm. ridge-seeded spurge
Euforbia esula (Schur) Soo leafy spurge

FABALIEAE [Leguminosae] (Bean Family)
Amorpha canescens Pursh leadplant
Astragalus ceramicus Sheld. painted milk-vetch
Dalea purpurea Vent. purple prairie clover
Dalea villosa (Nutt.) Spreng. silky prairie clover
Glycyrrhiza lepidota Pursh wild licorice
Lathyrus polyamorphus Nutt. hoary vetchling
Lotus purshianus Clem. & Clem. prairie trefoil
Medicago lupulina L. black medick
Medicago sativa L. alfalfa
Melilotus alba Medic. white sweet clover
Melilotus officinalis (L.) Pall. yellow sweet clover
Psoralea lanceolata Pursh lemon scurf-pea
Psoralea tenuiflora Pursh wild alfalfa
Trifolium fragiferum L. strawberry clover
Trifolium pratense L. red clover
Trifolium repens L. white clover

HALORAGACEAE (Water milfoil Family)
Myriophyllum exalbescens Fern. water milfoil

IRIDACEAE (Iris Family)
Sisyrinchium montanum Greene blue-eyed grass

JUNCACEAE (Rush Family)
Juncus balticus Willd. Baltic rush
Juncus dudleyi Wieg. Dudley rush
Juncus longistylis Torr.
Juncus torreyi Cov. Torrey rush

JUNCAGINACEAE (Arrowgrass Family)
Triglochin maritima L. arrowgrass

LAMIACEAE [LABIATAE] (Mint Family)
Lycopus asper Greene rough bugleweed
Mentha arvensis L. field mint
Monarda pectinata Nutt. spotted beebalm
Nepeta cataria L. catnip
Scutellaria galericulata L.- marsh skullcap
Teucrium canadense L. American germander

LENTIBULARIACEAE (Bladderwort Family)
Utricularia vulgaris L. common bladderwort

LILIACEAE (Lily Family)
Allium textile A. Nels. & Macbr. wild onion

LOASACEAE (Stickleaf Family)
Mentzelia nuda (Pursh) T. & G. stickleaf, sand lily

MALVACEAE (Mallow Family)
Sphaeralcea coccinea (Pursh) Rydb. scarlet globe mallow

NAJADACEAE (Naiad Family)
Najas quadalupensis (Spreng.) Magnus common naiad

NYCTAGINACEAE (Four o'clock Family)
Abronia fragrans Nutt. ex Hook. sweet sand verbena
Mirabilis glabra (S. Wats.) Standl. smooth four o'clock

ONAGRACEAE (Evening Primrose Family)
Calylophus serrulatus (Nutt.) Raven plains yellow primrose
Gaura coccinea Pursh scarlet gaura
Oenothera latifolia (Rydb.) Munz pale evening primrose
Oenothera nuttallii Sweet white-stemmed evening primrose
Oenothera villosa Thunb. common evening primrose

PAPAVERACEAE (Poppy Family)
Argemone polyanthemus (Fedde) G. Ownbey prickly poppy

PLANTAGINACEAE (Plantain Family)
Plantago eriopoda Torr. alkali plantain
Plantago major L. common plantain
Plantago patagonica Jacq. woolly plantain

POACEAE [GRAMINEAE] (Grass Family)
Agrohordeum macounii (Vasey) Lepage Macoun wildrye
Agropyron caninum (L.) Beauv. slender wheatgrass
Agropyron cristatum (L.) Gaertn. crested wheatgrass
Agropyron smithii Rydb. western wheatgrass
Agrostis scabra Willd. ticklegrass
Agrostis stolonifera L. redtop
Andropogon hallii Hack. sand bluestem
Andropogon scoparius Michx. little bluestem
Aristida purpurea Nutt. red three-awn
Bouteloua gracilis (H.B.K.) Lag. ex Griffiths blue grama
Bouteloua hirsuta Lag. hairy grama
Bromus japonicus Thunb. ex. Murr Japanese brome
Bromus tectorum L. downy brome
Calamagrostis canadensis (Michx.) Beauv. bluejoint
Calamagrostis stricta (Timm.) Koel. northern reedgrass
Calamovilfa longifolia (Hook.) Scribn. prairie sandreed
Cenchrus longispinus (Hack.) Fern. field sandbu
Dichanthelium acuminatum (Sw.) Gould & Clark
Dichanthelium oligosanthos (Schult.) Gould Scribner
panicum
Echinochloa muricata (Beauv.) Fern. barnyard grass
Elymus canadensis L. Canada wild rye
Eragrostis cilianensis (All.) E. Mosher stinkgrass
Eragrostis trichodes (Nutt.) Wood sand lovegrass
Glyceria striata (Lam.) Hitchc. fowl mannagrass
Hordeum jubatum L. foxtail barley
Koeleria pyramidata (Lam.) Beauv. junegrass
Leersia oryzoides (L.) Sw. rice cutgrass
Muhlenbergia filiformis (Thurb.) Rydb. pull-up muhly
Muhlenbergia mexicana (L.) Trin. wirestem muhly
Muhlenbergia pungens ThUrb. blowout muhly
Muhlenbergia racemosa (Michx.) B.S.P. marsh muhly
Munroa squarrosa (Nutt.) Torr. false buffalo grass
Oryzopsis hymenoides (R. & S.) Ricker Indian ricegrass
Panicum capillare L. witchgrass
Panicum virgatum L. switchgrass
Paspalum setaceum Michx. sand paspalum
Phleum pratense L. timothy
Phragmites australis (Cav.) Trin. ex Steud. common reed
Poa pratensis L. Kentucky bluegrass
Sorghastrum nutans (L.) Nash Indian grass
Spartina pectinata Link prairie cordgrass
Sphenopholis obtusata (Michx.) Scribn prairie wedgegrass
Sporobolus cryptandrus (Torr.) Gray sand dropseed
Stipa comata Trin. & Rupr. needle-and-thread
Triplasis purpurea (Walt.) Chapm. sandgrass
Vulpia octoflora (Walt.) Rydb. six-weeks fescue

POLEMONIACEAE (Phlox Family)
Ipomopsis longiflora (Torr.) V. Grant white-flowered gilia
Phlox andicola Nutt. ex Gray plains phlox

POLYGONACEAE (Buckwheat Family)
Eriogonum annuum Nutt. grasshopper tobacco
Polygonum amphibium L. water smartweed
Polygonum convolvulus L. climbing buckwheat
Polygonum lapathifolium L. nodding willow weed
Polygonum ramosissimum Michx. knotweed
Rumex crispus L. curly dock
Rumex venosus Pursh wild begonia

POTAMOGETCINACEAE (Pondweed Family)
Potamogeton illinoensis Morong Illinois pondweed
Potamogeton natans L. broad-leaved pondweed
Potamogeton pectinatus L. sago pondweed
Potamogeton richardsonii (Benn.) Rydb. claspingleaf pondweed

PRIMULACEAE (Primrose Family)
Lysimachia thyrsiflora L. tufted loosestrife

RANUNCULACEAE (Buttercup Family)
Delphinium virescens Nutt. prairie larkspur
Ranunculus cymbalaria Pursh shore buttercup

ROSACEAE (Rose Family)
Potentilla norvegica L. Norwegian cinquefoil
Potentilla pensylvanica L. cinquefoil
Rosa arkansana Porter Arkansas rose
Rosa woodsii Lindl. western wild rose

RUBIACEAE (Madder Family)
Galium trifidum L. small bedstraw

RUPPIACEAE (Ditchgrass Family)
Ruppia occidentalis S. Wats. ditchgrass

SCROPHULARIACEAE (Figwort Family)
Agalinis tenuifolia (Vahl) Raf. slender gerardia
Penstemon albidus Nutt. white penstemon
Penstemon angustifolius Nutt. ex Pursh narrowleaf penstemon

SOLANACEAE (Potato Family)
Physalis heterophylla Nees clammy ground cherry
Physalis hispida (Waterfall) Cronq. plains ground cherry
Solanum interius Rydb. plains black nightshade

SPARGANIACEAE (Bur-reed Family)
Sparganium eurycarpum Engelm. giant bur-reed

TYPHACEAE (Cat-tail Family)
Typha angustifolia L. narrow-leaved cat-tail
Typha latifolia L. broad-leaved cat-tail

URTICACEAE (Nettle Family)
Parietaria pensylvanica Muhl. Pennsylvania pellitory
Urtica dioica L. stinging nettle

VERBENACEAE (Vervain Family)
Verbena bracteata Lag. & Rodr. prostrate vervain
Verbena hastata L. blue vervain
Verbena stricta Vent. hoary vervain

ZANNICHELLIACEAE (Horned pondweed Family)
Zannichellia palustris L. horned pondweed

ZYOOPHYLLACEAE (Caltrop Family)
Tribulus terrestris L. puncture vine

Appendix G. Minimum Tools for Wilderness Management

The Wilderness Act of 1964 (Public Law 88-577/16 U.S.C. 1131-1136) defines wilderness as:

“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 5,000 acres of land or is of sufficient size 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.”

The 24,502-acre proposed Crescent Lake Wilderness Area will be protected and managed so as to preserve its wilderness characteristics until such time as Congress acts on the proposal. The use of certain management tools is essential to maintain these characteristics. However, the use of those tools must be “minimized.” Following is a brief description of those tools and their use. In the terms of management, all access into the Wilderness Area will be limited and the Refuge staff will avoid multi-trips. Specific management will be fully presented in the Wilderness Management Plan to be completed by May 2003.

Fire Management

The proposed wilderness is, and is surrounded by, a sea of volatile fuels; there is no road access to the perimeters adjacent to private lands. Thus, wildfires will be controlled by whatever means necessary to protect life and surrounding private property. Water supplies (including windmills) may be retained on the wilderness since there are no other reliable water sources. Motorized vehicles and other firefighting equipment may be temporarily stored on or near the wilderness to enable quick response.

Prescribed fires will be used only when essential to sustain wilderness characteristics. No more than 5 percent of the wilderness will be burned in any one year and the tools used will include all those needed to assure fires are contained within the planned burn areas and do not spread to surrounding private lands. This may include use of motorized vehicles such as pickup trucks, all-terrain vehicles (ATVs), tractors and mowers.

Grazing

Grazing may also be essential to sustain wilderness characteristics and, whether by cattle or bison, requires some supporting facilities and activities including: installation and maintenance of fencing; moving animals in, out, and within the wilderness; providing and maintaining water supplies; removing sick animals. All activities will be conducted without motorized vehicles when possible. When vehicles are necessary, ATVs will be used, whenever possible, to minimize physical impacts. No new water facilities are needed but removal of unnecessary wells and maintenance of others will require occasional use of heavier motorized vehicles. Electric fencing will be used occasionally to minimize the need for permanent facilities.

Control of Nonnative Plants

Biological controls have been implemented and will continue to be the tools of choice. However, monitoring indicates that Canada thistle continues to spread and that chemical control is also needed to maintain wilderness character. When chemical control within the wilderness is conducted, access will be by walking with backpacks (spot spraying in perimeter areas), and ATVs. Aerial spraying will be considered if needed to control large-scale invasions.

Public Use

All authorized public uses may occur within the wilderness to the extent they can be conducted without the use of motorized vehicles. However, solitude and primitive recreation is the overriding theme. Hiking, photography, and wildlife viewing will be allowed but no trails will be provided. Signs and interpretive facilities will be on the perimeters, outside the wilderness. There are no fishing lakes. Hunting will be permitted but the use of wheeled carts for removing game will not be allowed. The Nebraska Game and Parks Commission will be contacted in order to try to establish a special provision for the boning out of deer in the wilderness, which currently is prohibited by State law.

Appendix H. Species of Special Interest

Region 6 Species of Management Concern that Occur on the Refuge

American Bittern	<i>Botaurus lentiginosus</i>
White-Faced Ibis	<i>Plegadis chihi</i>
Trumpeter Swan	<i>Cygnus buccinator</i>
Northern Harrier	<i>Circus cyaneus</i>
Ferruginous Hawk	<i>Buteo regalis</i>
Upland Sandpiper	<i>Bartramia longicauda</i>
Black Rail	<i>Laterallus jamaicensis</i>
Long-billed Curlew	<i>Numenius americanus</i>
Black Tern	<i>Chlidonias niger</i>
Barn Owl	<i>Tyto alba</i>
Burrowing Owl	<i>Athene cunicularia</i>
Short-eared Owl	<i>Asio flammeus</i>
Redheaded Woodpecker	<i>Melanerpes erythrocephalus</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Dickcissel	<i>Spiza americana</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Lark Bunting	<i>Calamospiza melanocorys</i>
Grasshopper Sparrow	<i>Ammodramus savannarum</i>
Eastern Meadowlark	<i>Sturnella magna</i>
Greater Prairie Chicken	<i>Tympanuchus cupido</i>
Yellow Mud Turtle	<i>Kinosternon flavescens</i>

State and Federally Listed

Endangered

Blowout Penstemon	<i>Penstemon haydenii</i>
American Burying Beetle	<i>Nicrophorus americanus</i>
Swift Fox	<i>Vulpes velox</i>

Threatened

Bald Eagle	<i>Haliaeetus leucocephalus</i>
------------	---------------------------------

Partners-in-Flight Watch List

Bobolink	<i>Dolichonyx oryzivorus</i>
Franklin's Gull	<i>Larus pipixcan</i>
Grey Catbird	<i>Dumetella carolinensis</i>
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>

Appendix I. Step-Down Management Plans

Step-down management plans describe management strategies, procedures, methods and tasks for specific resources or functions. Step-down plans for Crescent Lake Refuge are listed below and are on file at the Refuge headquarters.

<u>Approved Step-down Plans</u>	<u>Year</u> <u>Approved</u>
Fire Management	1998
Fish Management	1980
Furbearer Management	1961
Hazard Communication	1996
Hunting	1969
Predator Management	1987
Water Management (Annual Plan)	2000
Wildlife Inventory	1995
Smith Lake Fishing	1996
(Amended to include Crane Lake)	2000
Integrated Pest Management	1995
Spill Prevention, Containment & Countermeasures	1999
Exposure Control - Blood Borne Pathogens	1997
Safety	1994
Signs	1999
Prescribed Burns (Annual Plans)	2000
Upland Management Plan	1996

Appendix J. Section 7

INTRA-SERVICE ENDANGERED SPECIES ACT SECTION 7 EVALUATION FORM

Originating Person: John F. Esperance, Branch Chief, Land Protection Planning

Telephone Number: 303-236-8145, ext. 658

Date: 07/11/02

Region: Region 6

III. Pertinent Species and Habitat:

A. Listed species and/or critical habitat within the action area:

blowout penstemon (E)	<i>Penstemon haydenii</i>
bald eagle (T)	<i>Haliaeetus leucocephalus</i>

B. Proposed species and/or their proposed critical habitat within the action area:

None

C. Candidate species within the action area:

None

IV. Occurrence:

Prairie falcon, least tern, and piping plover are occasionally seen during migrations but are considered casual visitors. The ferruginous hawk is considered a sensitive species but is an uncommon migrant. Black terns and loggerhead shrikes are also sensitive species which nest on the Refuge.

The swift fox, an infrequent visitor, is a State listed species. One sighting was made on the Refuge in the year 2000.

The yellow mud turtle is a Refuge species of special interest.

V. Location:

The 45,849-acre Crescent Lake National Wildlife Refuge is located 28 miles north of Oshkosh, Nebraska in Garden County, within the Central Flyway, at the southwestern end of the Nebraska Sandhills. It is administered as part of the Crescent Lake/North Platte National Wildlife Refuge

Complex. The Complex headquarters is 100 miles to the west in the city of Scottsbluff.

VI. Action:

The implementation of the Comprehensive Conservation Plan (CCP) is to facilitate the restoration, maintenance, and management of natural diversity. Additionally, the CCP facilitates continuity of management, and effective decision-making to achieve these ends. The Plan is intended to provide long-range guidance for the management of this Refuge based on careful consideration of the physical and biological characteristics of the land base. It is designed to facilitate achievement of the Service mission and Refuge goals which center on the protection and enhancement of wildlife and their habitats and the provision of appropriate compatible public recreation.

The Service has responsibility for stewardship over species that occupy Service lands and for the protection of cultural resources on these lands. Crescent Lake NWR, located in west-central Nebraska is a unique and ecologically important component of the National Wildlife Refuge System.

VII. Effects Determination and Response Requested

A. Listed Species

Not Likely to Adversely Affect, Beneficial effect - Concurrence requested on the proposed action

B. Proposed Species

No effect - Concurrence requested on the proposed action

C. Candidate Species

No effect - Concurrence requested on the proposed action

Steven A. Knode, Project Leader Steven A. Knode Date 7/15/02

- Concur (Mark One) Do Not Concur
 Formal Consultation Required Conference Required

Remarks:

Appendix K. List of Preparers/ Review Team

This document is a compilation of efforts by Bill Behrends, (Refuge Manager, retired), Steve Knode (Project Leader), and Marlin French (Refuge Biologist). Dale Henry (ResPro Consulting) produced the written document in the approved format. Others involved in the process included: John Esperance (Planning) served as the Team Leader; Wayne King (Regional Biologist) provided guidance in developing the habitat and wildlife goals and objectives; Sean Fields (Planning) produced the maps; and Barb Shupe (Planning) completed edits and document layout.

Additionally, the following individuals formed the Review Team:

- Ken McDermond, FWS, Regional Chief of the National Wildlife Refuge System, Region 6
- Dave Heffernan, FWS, Deputy Regional Chief of the National Wildlife Refuge System, Region 6
- Larry Shanks, FWS, Refuge Supervisor (retired), Region 6/CO-KS-NE-UT
- Ron Cole, FWS, Refuge Supervisor, Region 6/CO-KS-NE
- Mike Spratt, Chief, Division of Refuge Planning
- Harvey Wittmier, Chief, Division of Realty
- Cheryl Williss, FWS, Regional Chief of Water Resources, Region 6
- Sheri Fetherman, FWS, Chief, Education/Visitor Services, Region 6
- Melvie Uhland, FWS, Education/Visitor Services, Region 6
- Rhoda Lewis, FWS, Regional Archaeologist, Region 6
- Dr. Jim Stubbendieck, Director, Center for Great Plains Studies, Univ. of Nebraska at Lincoln (UNL)
- Steve Riley, NGPC, Headquarters
- Dave Tunink, NGPC, Headquarters
- Bruce Morrison, NGPC, Headquarters
- Ritch Nelson, NGPC, Panhandle District Mgr, Wildlife Division
- Jack Peterson, NGPC, Panhandle District, Fisheries Supervisor
- Mark Lindvall, Neb. Chapter of The Wildlife Society
- Len McDaniel, FWS, Refuge Biologist (retired), Valentine NWR

The staff of the Crescent Lake National Wildlife Refuge wishes to thank all those involved in the preparation, review, and publishing of this Draft Comprehensive Conservation Plan.

Appendix L. Mailing List

Federal Officials

U.S. Senator Chuck Hagel, Washington, D.C.
Mary Crawford, Ag Director, Scottsbluff, NE
U.S. Senator Ben Nelson, Washington, D.C.
State Dir. W. Donald Nelson, Lincoln, NE
Staff Assistant, Chadron, NE
U.S. Representative Tom Osborne, Washington, D.C.
Esther Benson, District Office Director, Scottsbluff, NE

Federal Agencies

USDA/Natural Resources Conservation Service, Oshkosh, NE
US EPA, Denver, CO
USFWS, Air Quality Branch, CO; Albuquerque, NM; Alamos/Monte Vista NWR, CO; Anchorage, AK; Arapaho NWR, CO; Arlington, VA; Arrowwood NWR, ND; Atlanta, GA; Denver, CO; Des Lacs NWR, ND; Fort Snelling, MN; Hadley, MA; Juneau, AK; Ecological Services Field Office, Grand Island, NE; Fish Springs NWR, UT; Fort Niobrara/Valentine NWR, NE; J. Clark Salyer NWR, ND; Lost Trail NWR, MT; Medicine Lake NWR, MT; North Platte NWR, NE; Portland, OR; Rainwater Basin NWR, NE; Sacramento, CA; Sherwood, OR; Sand Lake NWR, SD; Seedskaadee NWR, WY; Shepherdstown, WV; Upper Souris NWR, ND; Waubay NWR, SD
USGS, Biological Resources Division, Fort Collins, CO

State Officials

Governor Mike Johanns, Lincoln, NE
Nancy Dunn, Dir. Field Operations, Western Office
State Senator Phil Erdman, Lincoln, NE

State Agencies

Nebraska Game and Parks Commission
Ritch Nelson, Alliance, NE
Jim Zimmerman, Alliance, NE
Rex Amack, State Office, Lincoln, NE
Ash Hollow State Historical Park, Lewellen, NE
Nebraska State Historical Society, Lincoln, NE
Illinois Department of Natural Resources, Springfield, IL

Local Agencies

Garden County Commissioners
City of Oshkosh

Media

Star-Herald, Scottsbluff, NE
Gering Courier, Gering, NE
KNEB Radio, Scottsbluff, NE
KMOR/KOAQ/KOLT Radio, Scottsbluff, NE
Omaha World Herald, Omaha, NE
KDUH TV, Scottsbluff, NE
KSTF TV, Gering, NE
Garden County News, Jim McKeeman, Oshkosh, NE
Alliance Times-Herald, Alliance, NE
KAAQ Double Q Country FM

Libraries

Alliance Library, Alliance, NE
Oshkosh Library, Oshkosh, NE

Organizations, Business and Civic Groups

National Audubon Society, Washington, D.C.
Audubon Nebraska, Dave Sands, Lincoln, NE
Wildcat Audubon Society, Alice Kenitz, Gering, NE
Nebraska Chapter, TWS, Mark Lindvall, Valentine, NE
The Nature Conservancy
Vincent Shay, Omaha, NE
Doug Whisenhunt, North Platte, NE
The Nation Bison Assoc., Denver, CO
NE State Buffalo Association, Dave Hutchinson, Rose, NE
Rackett Fire District #1, Ashby, NE
Blue Creek Fire District #1, Lewellen, NE
North Platte Sportsman's Assoc, Keith Wiederspan, Oshkosh NE
Natl. Wildlife Ref. Assoc., Brent Giezentanner, Co Springs, CO
TWS, Central Mountain & Plains Section, Fort Collins, CO
Wildlife Management Institute, Rob Manes, KS; Bob Bryne, D.C.
KRA Corporation, F&W Reference Section, Bethesda, MD
Defenders of Wildlife, Washington, D.C.
The Wilderness Society, Washington, D.C.
Animal Protection Institute, Sacramento, CA
The Nature Conservancy, Boulder, CO
National Trappers Association, New Martinsville, WV

Universities & Colleges

University of Nebraska
Thomas Bragg, Omaha, NE
James Stubbendieck, Lincoln, NE
Ogalala Lakota College
Don Althoff, Kyle, SD
Northwestern University, Professor Paul Friesema, Evanston, IL
University of Colorado, Shelly Drumm, Librarian

Individuals Expressing Interest in This Plan

Darrell Anderson	Dr. Stephen Kerr
Bill Behrends	Jim McGinley
Arnold Black, Jr.	Lynn Myers
Loren Blake	Dick Paisley
Cliff Buske	Jack Parker
Eddy Collins	Duane Petersen
Gerald DeWitt	Pat Peterson
Ev Dietlein	Hershell Rice
Tim Dietlein	Rush Creek Land & Livestock
Ron Dorman	Craig Schafer
Jim Ducey	Ron Shearer
Brad Emerson	Jim Snyder
Chancy Groves	Pat Thelander
Dale Henry	Todd Thies
Martin Hisel	Ted Turner, c/o Russell Miller
Dr. John Iverson	Ted Turner, c/o John Hansen
Kyran Kunkel, Ph.D.	Gale Young
Merle Jeffrey	Jack Zickefoose

Appendix M. Public Involvement / Consultation and Coordination

In the initial stage of CCP planning, a significant effort was extended to inform and solicit ideas from the public regarding a variety of Refuge programs and issues; open house invitations were mailed to 150 individuals on a mailing list comprised of local and national stakeholders (permittees, educators, neighbors and agency and non-profit organization representatives). An open invitation was further offered to interested parties via a widely published/broadcast news release. Both the personal and open invitations included requests to those unable to attend the open house but wishing to provide input into the planning process to contact the Refuge Manager for additional information and means by which to participate by mail.

The open house scoping session was held Thursday, July 16, 1998, from 2:00 pm until 7:00 pm at the Community Center in Oshkosh, Nebraska. The open house provided participants an opportunity to learn about the Refuge's purpose, mission and goals, and issues currently facing management. Fifteen people attended the afternoon/evening session and were provided the chance to speak with Service representatives and to share their comments. A summary of the most common issues is addressed below:

Bison

Several comments were received from the scoping meetings and from letters sent to the refuge manager about the possibility of reintroducing bison. Local ranchers were more concerned about the economics of having a government herd than the presence of the bison themselves. Some felt that having bison on the Refuge would compete with cattle producers for grazing. One comment was received about brucellosis. Other written comments were received supporting the idea of having bison on the Refuge.

This plan defines the concept of bison on the Refuge in terms of a privately-owned herd. This would be our first choice, should the concept proceed further. Should this idea move forward, it will require better boundary fences. Grants and/or donations would be needed in order to fund an enhanced boundary fence, so this alone would take some time to accomplish. Only cooperators who have disease free bison would be considered for a grazing permit.

A meeting with Nebraska Game and Parks Commission biologists in Alliance was held on November 9, 1998, to discuss this proposal. Issues and suggestions that surfaced at this meeting included:

1. *What will the impacts be to other wildlife?* This revolved around the fence that would be needed along the wilderness boundary. The refuge manager feels that a fence designed to permit deer and antelope to pass in and out of the wilderness would be required.
2. *Would the area have to be closed to access by hunters and hikers?* The refuge staff feels that the area would not have to be closed to access just because bison occur in the 24,500-acre proposed wilderness. Access is not restricted in Yellowstone or Theodore Roosevelt National Parks where bison roam freely. Part of the "wilderness experience" includes some inherent dangers but hunters and hikers should be able to visit the area with minimal risk.
3. *Would like to see "pre-bison" monitoring of the habitat and wildlife.* This is an excellent suggestion and will be done to some degree. The quality of the monitoring will be limited by funding and access limitations imposed by the Wilderness Act.
4. *Start small. Treat the bison like wildlife.* This was another good suggestion and the Refuge would be starting with a limited number of bison in a restricted area in order to determine if the herd is accomplishing our habitat goals and to see what problems arise with managing bison. While our initial intent was to have a government herd which we would treat as wildlife, there will be limitations on how "wild" a private herd can be.

A Bison Management Plan would need to be written before more details could be discussed.

Proposed Wilderness Area

The few comments we received about the wilderness during our scoping meetings were negative. Local Refuge users commented on the fact that losing vehicle access would cause a hardship for the old, the very young, and the disabled Refuge enthusiast.

The eastern one-half of the Refuge totaling about 24,500 acres was proposed as a wilderness in 1972. Independent of this planning process, it was brought to the attention of the refuge manager that U.S. Fish & Wildlife Service policy calls for a Proposed Wilderness to be treated as if it were a designated wilderness. Therefore, on September 1, 2000, the area was closed to public vehicle traffic and any management of the area by refuge staff will be done only when absolutely necessary and only with the “minimum tool” needed to accomplish the task. This policy will remain in effect until Congress acts on the wilderness proposal.

Fishing

The Refuge public use that generates the most use days is fishing. Comments at the scoping meeting dealt with increasing the number of walleye in Island Lake and expanding fishing opportunities by opening Crane Lake to fishing. Other comments included requests for “catch-and-release” fishing restrictions for bass and one complaint that the rail on the handicapped accessible fishing pier was too high.

Fisheries management on Crescent Lake Refuge is conducted by the Nebraska Game and Parks Commission staff out of Alliance, Nebraska. Management recommendations are offered to the refuge manager who, generally, approves the suggestion and the State implements their recommendation. The comment about stocking more walleye in Island Lake and the “catch-and-release” concept was passed on to the State fisheries biologist.

During the planning process for this document, the State had the opportunity to get yellow perch that could be stocked in Crane Lake. Our investigations indicated that an over abundance was occurring of fathead minnows in Crane Lake which added to the turbidity of the water. Stocking perch in Crane Lake would not only provide another fishing lake but would reduce the density of minnows and, hopefully, help clear the water. Clearer water will result in more submergent vegetation important to waterfowl and other wetland-dependent wildlife.

The refuge staff looked in to the height requirements for the handicapped railing on the fishing pier and found that it was built at the proper height.

County Access Road

It’s been said that Garden County is the only County in Nebraska without a paved north/south road. Public comments about the current single lane road being in rough shape were, and are, common. The U.S. Fish & Wildlife Service assisted Garden County Commissioners in developing a proposal to improve the road utilizing Federal Highway monies. The County was successful in obtaining funding for a small portion of the needed repairs; however, substantially more money is needed in order to provide a road that Refuge visitors and the local residents could use dependably.

One suggestion that surfaced at the scoping meeting was that poison be used along the Refuge portion of the County road to reduce the kangaroo rats that burrow under the asphalt portions of the road. The refuge manager feels this would not be appropriate for a national wildlife refuge and feels that it would not be effective, given that as kangaroo rats are killed, others will quickly fill the void.

Civilian Conservation Corps (CCC)

One letter was received asking that the CCC (and WPA) structures and history be maintained. The Refuge staff is proud of the accomplishments of the CCC and fully intend to keep their historic efforts alive. Refuge managers will continue to make decisions at Crescent Lake Refuge with this in mind.

Managers met with several community groups during the ensuing weeks to further discuss the CCP process. Such groups included the Wildcat Audubon Society, Western Nebraska Sportsman Association, and the Scottsbluff Lions Club. The Crescent Lake/North Platte NWR Complex also conducted a formal staff meeting by which individual ideas were raised and documented regarding future refuge management direction.

Public Comments On Draft CCP

The Crescent Lake NWR Draft Comprehensive Conservation Plan and Environmental Assessment was released for a 30-day public review on May 1, 2002. The Service received 12 letters of comments from State and Federal agencies, private ranching community, private citizens, non-profit conservation group, and university officials. The Service received a number of editorial comments along with other substantial comments, which follow with our response.

Comment: One reader commented that the bison create blowouts which would benefit the endangered blowout penstemon.

Response: The Service agrees with the comment, and the text was added.

Comment: A comment on the strategy for reintroduction of bison was received saying that a wildlife biologist should be included in the Refuge Bison Advisory Council.

Response: The text was changed to include wildlife biologists.

Comment: One reader questioned the value of interseeding native grasses, as outlined in the document.

Response: After discussing the interseeding with a group of range specialists, we have removed this objective from the document.

Comment: A number of questions were asked about the total number of acres of blowout penstemon.

Response: The Refuge currently has 180 blowouts that historically have had penstemon. They average about 10 yards in diameter; some larger, some smaller. Of the 180 blowouts, we found 80 blowouts with penstemon in 2002. The Service added a sentence giving this information. Also, it was suggested that we monitor the success or any actions we take, with regards to penstemon. A sentence was added to emphasize this point.

Comment: Several comments were received about the bison issue. A comment stated that bringing in bison would be "a real mistake." This was based on observations of damaged grasslands by other bison herds in Nebraska. A concern was also stated about the cost of fencing needed to hold bison.

Response: Bison do graze differently than livestock and by starting small, evaluating and adapting, the Refuge plans to be able to manage our grasslands with bison. Bison could activate some blowouts, and while some would call this damaging the grassland, it also provides habitat for the endangered blowout penstemon plant. If bison are ever reintroduced to Crescent Lake Refuge, their impact on the area will be closely monitored.

There are a variety of types of fences used to confine bison throughout the United States. Some ranchers use multi-strand, high tensile electric fences. Others use standard barbed wire fences. Bison ranchers are developing new fence designs each year so if bison are reintroduced, a fence will be built that minimizes the impact to resident wildlife, will be economical to build and, most importantly, keeps the bison on Refuge lands.

Comment: Comments were received from the Nebraska Game and Parks Commission requesting that we consider adding opportunities to hunt more than just waterfowl.

Response: The Refuge is currently open to deer hunting and upland bird hunting and we have identified limited waterfowl hunting as a compatible recreational hunt. During the writing of a new hunt plan for the Refuge, we will work with Nebraska Game and Parks Commission biologists to examine further hunting opportunities.

Comment: With the assistance of Dr. John Iverson, quite a bit of information was added about the yellow mud turtle.

