Appendix C

Planning Team and Contributors

This document is the result of extensive, collaborative, and enthusiastic efforts by members of the planning team.

Team Member	*Position*	*Work Unit*
Natoma Buskness	*former* deputy project leader	Chase Lake NWR, Woodworth, ND
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Cheryl Jacobs	biological science technician	Long Lake NWR Complex, Moffit, ND
Gregg Knutsen	refuge biologist	Long Lake NWR Complex, Moffit, ND
Lynda Knutsen	outdoor recreation planner	Long Lake NWR Complex, Moffit, ND
Randy Kreil	wildlife division chief	NDGF, Bismarck, ND
Rachel Laubhan	wildlife biologist	USFWS, Northern Prairie Wildlife Research Center, Jamestown, ND
Murray Laubhan	research wildlife biologist	USGS, Northern Prairie Wildlife Research Center, Jamestown, ND
Adam Misztal	fish and wildlife biologist, *former* planning team leader	USFWS, Region 6, Colorado Field Office, Lakewood, CO
Richard Schroeder	ecologist	USGS – Biological Resources Division, Fort Collins, CO
Cindy Souders	outdoor recreation planner	USFWS, Region 6, Division of Education and Visitor Services Lakewood, CO
Meg Van Ness	regional archaeologist	USFWS, Region 6, Lakewood, CO
Paul Van Ningen	project leader	Long Lake NWR Complex, Moffit, ND

Valuable support to the planning team was also provided by the individuals listed below.

Name	*Position*	*Work Unit*
Ned Euliss, Jr	research wildlife biologist	USGS, Northern Prairie Wildlife Research Center, Jamestown, ND
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Linda Kelly	chief, branch of comprehensive conservation planning	USFWS, Region 6, Division of Planning, Lakewood, CO
Neal Neimuth	wildlife biologist	USFWS, HAPET Office, Bismarck, ND
Ron Reynolds	project leader	USFWS, HAPET Office, Bismarck, ND

Additionally, the following Service staff from Region 6 provided valuable input on earlier drafts of this document.

Name	*Position*
Bob Barrett	deputy refuge supervisor, ND/SD
Rick Coleman	assistant regional director
Shane Delgrosso	fire management officer
Jeff Dion	fire management officer/ Arrowwood NWR complex
John Esperance	chief of land protection planning branch
Sheri Fetherman	chief of education and visitor services
Pete Finley	ROS/pilot
Galen Green	fire ecologist
Toni Griffin	refuge planner
Todd King	maintenance worker
Laura King	refuge planner
Wayne King	regional biologist

Rod Krey	refuge supervisor, ND/SD
Tyrell Lauckner	maintenance worker
Michael Spratt	chief, division of refuge planning
Jason Wagner	supervisory range technician
Wendy Wollmuth	administrative officer
Harvey Wittmier	chief, division of realty

Appendix D

Key Legislation and Policies

This appendix briefly describes the guidance for the Refuge System and other policies and key legislation that guide the management of the refuge complex.

NATIONAL WILDLIFE REFUGE SYSTEM

The mission of the Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. (Improvement Act.)

Goals

- To fulfill our statutory duty to achieve refuge purpose(s) and further the System mission.
- Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.
- Perpetuate migratory bird, inter-jurisdictional fish, and marine mammal populations.
- Conserve a diversity of fish, wildlife, and plants.
- Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems.
- To foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, high quality, and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Guiding Principles

There are four guiding principles for management and public use of the Refuge System established by Executive Order 12996 (1996):

Public Use: The Refuge System provides important opportunities for compatible wildlife-dependent recreational activities involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation.

Habitat: Fish and wildlife will not prosper without high quality habitat, and without fish and wildlife, traditional uses of refuges cannot be sustained. The Refuge System will continue to conserve and enhance the quality and diversity of fish and wildlife habitat within refuges.

Partnerships: America's sportsmen and women were the first partners who insisted on protecting valuable wildlife habitat within wildlife refuges. Conservation partnerships with other federal agencies, state agencies, American Indian tribes, organizations, industry, and the public can make significant contributions to the growth and management of the Refuge System.

Public Involvement: The public should be given a full and open opportunity to participate in decisions regarding acquisition and management of our national wildlife refuges.

Legal and Policy Guidance

Management actions on national wildlife refuges are circumscribed by many mandates including laws and executive orders, the latest of which is the Volunteer and Community Partnership Enhancement Act of 1998. Regulations that affect refuge management the most are listed below.

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

Americans with Disabilities Act (1992)—Prohibits discrimination in public accommodations and services.

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

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

Archaeological Resources Protection Act (1979), as amended—Protects materials of archaeological

interest from unauthorized removal or destruction and requires federal managers to develop plans and schedules to locate archaeological resources.

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

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

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

Executive Order 7169 (1935)—Establishes Sand Lake National Wildlife Refuge "... as a refuge and breeding ground for migratory birds and other wild life... to effectuate further the purposes of the Migratory Bird Conservation Act…."

Executive Order 11988 (1977)—Requires federal agencies to provide leadership and take action to reduce the risk of flood loss, minimize the impact of floods on human safety, and preserve the natural and beneficial values served by the flood plains.

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

Executive Order 13007, Indian Sacred Sites (1996)—Directs federal land management agencies to accommodate access to and ceremonial uses 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 (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.

Federal Records Act (1950)—Requires the preservation of evidence of the government's organization, functions, policies, decisions, operations, and activities, as well as basic historical and other information.

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

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

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

Migratory Bird Treaty Act (1918)—Designates the protection of migratory birds as a federal responsibility; and enables the setting of seasons and other regulations, including the closing of areas, federal or nonfederal, to the hunting of migratory birds.

National Environmental Policy Act (1969)—Requires all agencies, including the Service, to examine the environmental impacts of their actions, incorporate environmental information, and use public participation in the planning and implementation of all actions. Federal agencies must integrate this Act with other planning requirements, and prepare appropriate documents to facilitate better environmental decision making. [From the Code of Federal Regulations (CFR), 40 CFR 1500]

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

National Wildlife Refuge System Administration Act (1966)—Defines the Refuge System and authorizes the Secretary of the Interior to permit any use of a refuge, provided such use is compatible with the major purposes for which the refuge was established.

National Wildlife Refuge System Improvement Act of 1997—Sets the mission and administrative policy for all refuges in the Refuge System; mandates comprehensive conservation planning for all units of the Refuge System.

Native American Graves Protection and Repatriation Act (1990)—Requires federal agencies and museums to inventory, determine ownership of, and repatriate cultural items under their control or possession.

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

Rehabilitation Act (1973)—Requires programmatic accessibility in addition to physical accessibility

for all facilities and programs funded by the Federal Government to ensure that any person can participate in any program.

Rivers and Harbors Act (1899)—Section 10 of this Act requires the authorization of U.S. Army Corps of Engineers prior to any work in, on, over, or under navigable waters of the United States.

Volunteer and Community Partnership Enhancement Act (1998)—Encourages the use of volunteers to assist in the management of refuges within the Refuge System; facilitates partnerships between the Refuge System and nonfederal entities to promote public awareness of the resources of the Refuge System and public participation in the conservation of the resources; and encourages donations and other contributions.

Appendix E
Public Involvement

The Service began the pre-planning process in November 2003. In January 2004, the Service contacted state and tribal representatives to invite them to participate in the planning process for the refuge complex's CCP. A planning team comprised of Service personnel from the refuge complex and the regional office, as well as of NDGF personnel (appendix C), was developed during the kickoff meeting in February 2004.

A Notice of Intent was published in the *Federal Register* on May 21, 2004. Five public open-house meetings were held from 7:00 to 9:00 p.m. during consecutive nights from March 29–April 2, 2004 at Steele (Community Center), Tappen (City Hall), Hazelton (Public School cafeteria), Wing (Senior Center), and Bismarck (NDGF headquarters), respectively. Notification of dates and times of the public open houses was distributed through press releases.

Attendance at these public meetings was sparse, with no more than 10 persons attending them, all together. Those who attended provided both written and oral comments. They were informed that comprehensive planning was an open process and they could submit their comments at any time and by any means (e.g., letter, telephone, internet) up until the time the CCP was final. Additional written comments were received by the planning team via mail.

Over the course of pre-planning and scoping, the planning team collected available information about the resources of the refuge complex and the surrounding areas. This information is summarized under chapter 3: Refuge Resources and Description.

Many of the public comments from the open houses and issue workbooks were general comments for all units of the refuge complex being managed as part of the Refuge System.

Draft issues and qualities lists, as well as the vision and goals for the refuge complex were developed during a workshop held in the Service's Bismarck office in late September 2004.

The planning team developed four alternatives. An assessment of each alternative's impacts (conducted between March and August 2005) guided the team in choosing the one that would best fulfill the purposes, vision and goals for the refuge complex. Once they identified the preferred alternative (proposed action), the planning team developed the objectives, strategies and rationales for each of the goals of the refuge complex. These are listed in chapter 4: Management Direction.

The team released the draft CCP/EA for a 30-day public comment period on July 10, 2006. During this public comment period, they held a public meeting at the refuge complex headquarters (July 12, 2006, from 12:00 p.m. until 8:00 p.m.) A announcement of this meeting and the release of the draft CCP/EA for public comment was published in the *Federal Register* on July 10, 2006 (Vol. 71, No. 131, pages 38892-38893), as well as in local media. No members of the public attended the public meeting.

The public comment period closed on August 10, 2006. One printed letter and an email message were the only comments received from the public. The following summarizes those two comments and the planning team's responses.

*Comment—A*lternative C of the draft CCP/EA is the best alternative because is good for furbearer management and for wildlife in general.

Response—The management scheme described under alternative C of the draft CCP/EA would indeed be good for furbearer management and wildlife in general. However, the refuge complex staff determined that the preferred alternative (alternative D) is the best alternative to fulfill the legislated purposes of *all* the units of the refuge complex as well as all the goals set out by the refuge complex staff.

Comment 2—The Service has strayed far from its own policy, which dictates that *fish and wildlife come first"* in the Refuge System. Refuges allow activities that are detrimental to wildlife, including hunting, fishing, trapping, motor boating, and jet skiing—often in the absence of thorough and accurate biological data on the species inhabiting and migrating through the refuge.

While the Improvement Act establishes hunting as a priority use, it also requires refuges to conduct rigorous scientific research on the status of refuge wildlife populations and use this information to guide refuge planning.

Wildlife trapping is *not* included as a "priority use" in the Improvement Act and therefore does not carry the same weight as the six priority public uses. The staff at the refuge complex should help to restore this public land system to its original purpose of providing a refuge and breeding place for migratory birds, other wild birds, game animals, and fur-bearing animals.

Response—The Service agrees, in words and actions, with the commenter that "fish and wildlife come first" on all units of the Refuge System. But the Improvement Act goes even further by recognizing that wildlife-dependent recreation activities—including hunting, fishing, wildlife observation and photography, and environmental education and interpretation—are legitimate public uses. Therefore, refuge staffs throughout the Refuge System devote significant amounts of time ensuring that public uses do not conflict with wildlife and habitat preservation goals.

Although the refuge complex staff spends a considerable about of time monitoring refuge species, it has limited funding and/or staffing to assess fully the health and population levels of every species (including furbearers and predators) that occupies the lands of the complex.

As noted by the commenter, trapping is not a priority public use. It is, however, an important tool in reducing the populations of predators that disrupt the nest success rate of waterfowl and other birds. There are many other problems associated with furbearers, including the damage they cause to infrastructure on the complex (e.g., beaver works at water control structures, holes in dikes and roads excavated by minks and muskrats) and their predation upon adjacent landowner's livestock (i.e., coyotes). These problems are fully documented in chapter 4 (predator management sub-goal) of the CCP.

Habitat fragmentation and population protection exacerbates problems specifically when it comes to predator and furbearer populations. The CCP attempts to address these issues through increased habitat protection and management, as well as through management of predators and furbearing mammals. The CCP addresses a number of strategies, some of which are nonlethal and aversion methods. It also addresses the need for lethal control of certain predators and furbearers in the most cost efficient, least disruptive, and most controlled manner. The problems encountered by management associated with predators and furbearers are reasons for actively managing their populations.

Population control methods for predatory and furbearing mammals are limited due to their varied characteristics (nocturnal, primarily water abode, seclusion, etc.). Nonlethal and aversion methods provide only a limited amount of relief from high population levels. Trapping is often the only effective method of reducing populations of predators and other furbearers, as many species are secretive and either not susceptible to traditional hunting methods, or traditional hunting is not an effective method of keeping their populations at acceptable levels (population levels that do not promote the management problems discussed above).

Trapping is not a recreational program that is open and/or available to the general public on the refuges of the complex. The project leader issues only a limited number of trapping permits to qualified trappers who will aid in the complex's goals. Trappers target specific individual animals and/or populations which present management issues. The project leader further restricts trapping to specific periods when the activity can be efficient and not interfere with other recreational or management activities. Trapping for recreational purposes is permitted on Long Lake WMD in accordance with its establishing legislation and state laws regulating this method of wildlife management.

The bald eagle represents the only potential conflict with a threatened and endangered species; however, there is limited overlap between the seasons of eagle migration and predator/ furbearer management activities. Eagles are also visual predators—they are attracted by sight to prey. By limiting sets to nonexposed visual baits (primarily during their migration periods through the refuge complex) there is essentially no risk to capture nontarget threatened and endangered species (e.g., bald eagles).

Mailing List

A mailing list was developed for this CCP. It includes the following:

Dr. George Linz, USDA/National Wildlife Research Center, Great Plains Field Station

Federal Agencies

U.S. Fish & Wildlife Service
National Wetlands Research Center Great Plains Field Station

U.S. Department of Agriculture
USDA Animal and Plant Health Inspection Service Wildlife Services

Natural Resources Conservation Service
Steel Service Center
Bismarck Service Center
Linton Service Center

State Officials
Randy Kreil, chief, Wildlife Division, NDGF

State Agencies
North Dakota Game and Fish Department

Local Agencies
Burleigh County Commissioners
Emmons County Commissioners
Kidder County Commissioners

Organizations, Businesses and Civic Groups
Delta Waterfowl Foundation
Ducks Unlimited Great Plains Regional Office
Bismarck Mandan Bird Club
Audubon Society North Dakota Office
WHSRN
Dakota Zoo
American Bird Conservancy
National Wild Turkey Federation
Steele Birding Drives
Driscoll Wildlife Club
Hazelton Lions Club
Nodak Sportsman Club
Bismarck Mandan Reel & Recreation
Emmons County Wildlife Club
Robinson Wildlife Club
Tuttle Wildlife Club
Wilton Sportsmans Club
Wing Wildlife Club
Lewis & Clark Sportsmen Club

Universities and Colleges
Bismarck State College
Kidder County North Dakota State University Extension
North Dakota State University Extension, Southwest District Director
Emmons County North Dakota State University Extension

Individuals
77 Private individuals

Appendix F

Long Lake National Wildlife Refuge Complex
Fee-title Tract Prioritization

Criteria for HIGH Priority Tracts

H1.) ≥80 breeding duck pairs per square mile (mean density for entire tract) and a minimum of 40 upland acres

H2.) ≥320 acres in total size, with ≥ 100 upland acres

H3.) ≥80 acres native prairie

H4.) Resource of concern designation (e.g., Piping Plover Critical Habitat, suitable Dakota skipper habitat).

Criteria for MODERATE Priority Tracts

M1.) Between 20 and 79 breeding duck pairs per square mile (mean density for entire tract) and a minimum of 40 upland acres.

M2.) Between 160 and 319 acres in total size, with ≥50 upland acres.

M3.) Between 25 and 79 acres of native prairie

M4.) Tract lies entirely within a Type I Grassland Bird Conservation Area (core) and has ≥ 40 upland acres.

Criteria for LOW Priority Tracts

L1.) All remaining tracts.

HIGH PRIORITY[1]

National wildlife refuge or waterfowl production area	County	Qualifying Criteria
Rath/Wonnenburg	Burleigh	H1, H2, H3, H4
Long Lake	Burleigh/Kidder	H2, H3, H4
Schiermeister	Emmons	H2, H3, H4
Sisco-Fallgatter	Emmons	H1, H2, H3
Almer	Kidder	H1, H3
Bechold	Kidder	H2, H3
Braun	Kidder	H1, H3
Crimmins	Burleigh	H2, H3
East Lost Lake	Burleigh	H2, H3

National wildlife refuge or waterfowl production area	County	Qualifying Criteria
Florence Lake	Burleigh	H2, H3
Goldsmith	Kidder	H2, H3
Monroe	Burleigh	H2, H3
Rachel/Hoff	Burleigh	H1, H4
Ryberg/Wonnenburg	Burleigh	H1, H3
Slade	Kidder	H2, H3
Victor	Burleigh	H1, H2
Whitman	Kidder	H2, H3
Adams	Burleigh	H3
Albright	Kidder	H2
Basaraba	Burleigh	H2
BLM #1e3	Burleigh	H4
BLM #1f	Burleigh	H4
BLM #1g	Burleigh	H4
BLM #1h	Burleigh	H4
BLM #1i	Burleigh	H4
BLM #5	Kidder	H4
BLM #6	Kidder	H4
BLM #7	Kidder	H4
Clizbe	Burleigh	H1
Kleppe Lang	Kidder	H4
Kurtz	Emmons	H3
McKenzie	Burleigh	H1

National wildlife refuge or waterfowl production area	County	Qualifying Criteria
N. Crimmins	Burleigh	H1
Oswald	Burleigh	H3
PDL/Trusty	Burleigh	H1
Rohrich/Walther/Weiszhaar	Emmons	H2
Thorstad	Burleigh	H1
Vogel	Kidder	H2
Wahl	Kidder	H3

MODERATE PRIORITY[1]

National wildlife refuge or waterfowl production area	County	Qualifying Criteria
Bernhardt	Burleigh	M2, M3, M4
Personius	Kidder	M1, M2 , M4
Bertsch Morrison	Kidder	M2, M4
Kleppe East	Kidder	M3, M4
Martin	Kidder	M3, M4
Nelson	Kidder	M2, M4
Nuestal Whitman	Kidder	M2, M4
Rohrback	Burleigh	M3, M4
Schatz	Emmons	M1, M3
Schauer	Burleigh	M2, M4
Thacker	Kidder	M3, M4
Uhde	Burleigh	M3, M4
Berg Gellner	Burleigh	M3

Foell	Emmons	M3
Guthmiller	Kidder	M2
Morrison	Kidder	M3
PDL 1c	Kidder	M3
Seventh Day Adventist	Burleigh	M2
Small	Burleigh	M2
YMCA	Burleigh	M2

LOW PRIORITY

National wildlife refuge or waterfowl production areas	County
BLM #1	Burleigh
BLM #3	Kidder
BLM #4	Kidder
Bryan/Mohler	Burleigh
Delzer	Emmons
Gaub Hoots	Kidder
Goose Lake	Emmons
Haak	Emmons
Haid	Burleigh
Kleppe West	Kidder
Leno	Burleigh
Mattern	Emmons
Mayer	Kidder
North Dakota	Burleigh

Project #	Station[1]	Project Title	Cost Estimate First Year Need (1000s)	Recurring Annual Need (1000s)
96026	LNL WMD	Enhance visitor services/outreach in the district by developing essential promotional/informational guides.	$58	$4
98012	LNL WMD	Conduct habitat/wildlife use surveys to guide management decisions.	$44	$10
98007	LNL WMD	Determine population status of emphasis species by conducting systematic district survey.	$75	$30
98008	LNL WMD	Conduct annual survey of colonial-nesting bird colonies in the district to develop population information.	$37	$15
96034	LNL WMD	Improve transport logistics for managing wpas by purchasing a transport truck with tilt trailer.	$97	$5
96020	LNL WMD	Increase prairie management capability by providing fencing and water development.	$227	$25
96021	LNL WMD	Enhance mixed-grass prairie management capability by providing essential real property improvements.	$121	$121
98013	LNL WMD	Conduct refuge complex-wide qualitative and quantitative floristic survey/documentation.	$34	$7
96033	LNL WMD	Support easement enforcement by obtaining easement tract photos.	$24	$3
96010	LNL WMD	Support management and administration of WPAs and easements by acquiring aerial photo coverage.	$68	$3
96008	LNL WMD	Conduct cultural resource inventories to assist in identification and preservation of significant resources.	$59	0
96045	LNL WMD	Provide user-friendly public use facilities and program focus through enhanced fabrication capability.	$106	$33
98011	LNL WMD	Support priority public uses on select WPAs by developing access approaches, lanes and parking areas.	$81	$10
98009	LNL WMD	Strategically increase waterfowl recruitment by managing district islands, peninsulas, and barrier areas.	$57	$13
96009	LNL WMD	Address universal hunting access issues by providing accessible blind.	$76	$10
98003	LNL WMD	Protect service water rights—initiate study on effects of pivot ground water withdrawal on surface wetlands.	$123	$10
96042	LNL WMD	Address enforcement and management problems on identified WPAs through benchmark establishment.	$65	0
96016	LNL WMD	Address waterfowl production limiting factors by placing nesting culverts on targeted WPAs.	$103	$10

PDL 1	Kidder
PDL 1a	Kidder
PDL 1b	Burleigh
PDL 1d	Kidder
Pleiness	Kidder
Schmidt	Kidder
Silvernagel	Emmons
Slovarp	Burleigh
Stark	Kidder

[1]*Application of any single criteria can qualify a tract as HIGH or MODERATE priority.*

Appendix G
Species List

Below is a list of resident and migrant wildlife species found on or adjacent to Long Lake NWR, as well as a list of plant species mentioned in this document.

This list includes all mammals, fish, and herpetofauna expected to occur on Long Lake NWR based on refuge files, unpublished systematic survey data, and other relevant literature and data that pertain to south-central North Dakota. Bird species listed in this appendix are based on the Long Lake NWR Bird List (May 2002), as well as additional information from refuge files (June 2002–May 2006).

Taxonomic order follows Banks et al. (1987; mammals, fish, amphibians, reptiles) and the Check-list of North American Birds (7th ed., 46th supplement; American Ornithologists' Union 2005).

Wildlife

Class Amphibia

Order Caudata

Tiger salamander (*Ambystoma tigrinum*)

Order Anura

Great Plains toad (*Bufo cognatus*)
Canadian toad (*Bufo hemiophrys*)
Woodhouse's toad (*Bufo woodhousei*)
Chorus frog (*Pseudacris triseriata*)
Northern leopard frog (*Rana pipiens*)
Plains spadefoot toad (*Scaphiopus bombifrons*)
Wood frog (*Rana sylvatica*)

Class Reptilia

Order Testudines

Common snapping turtle (*Chelydra serpentina*)
Western painted turtle (*Chrysemeys picta*)

Order Squamata

Northern red-bellied snake (*Storeria occipitomaculata*)
Plains garter snake (*Thamnophis radix*)
Smooth green snake (*Opheodrys vernalis*)
Bullsnake (*Pituophis catenifer*)
Western hognose snake (*Heterdon nasicus*)
Common garter snake (*Thmnophis sirtalis*)

Class Aves

Order Anseriformes

Greater white-fronted goose (*Anser albifrons*)
Snow goose (*Chen caerulescens*)
Ross's goose (*Chen rossii*)
Cackling goose (*Branta hutchinsii*)
Canada goose (*Branta canadensis*) – **B**
Brant (*Branta bernicla*) – **A**
Trumpeter swan (*Cygnus buccinator*)
Tundra swan (*Cygnus columbianus*)
Wood duck (*Aix sponsa*) – **B**
Gadwall (Anas strepara) – **B**
Eurasian Wigeon (*Anas penelope*) – **A**
American Wigeon (*Anas americana*) – **B**
American black duck (*Anas rubripes*)
Mallard (*Anas platyrhynchos*) – **B**
Blue-winged teal (*Anas discors*) – **B**
Cinnamon teal (*Anas cyanoptera*)
Northern shoveler (*Anas clypeata*) – **B**
Northern pintail (*Anas acuta*) – **B**
Gargany (*Anas querquedula*) - **A**
Green-winged teal (*Anas crecca*) – **B**
Canvasback (*Aythya valisineria*) – **B**
Redhead (*Aythya Americana*) – **B**
Ring-necked duck (*Aythya collaris*) – **B**
Greater scaup (*Aythya marila*)
Lesser scaup (*Aythya affinis*) – **B**
Common eider (*Somateria mollissima*) – **A**
Harlequin duck (*Histrionicus histrionicus*) – **A**
Surf scoter (*Melanitta perspicillata*) – **A**
White-winged scoter (*Melanitta fusca*)
Black scoter (*Melanitta nigra*) – **A**
Long-tailed duck (*Clangula hyemalis*) – **A**
Bufflehead (*Bucephala albeola*) – **B**
Common goldeneye (*Bucephala clangula*)
Barrow's goldeneye (*Bucephala islandica*) – **A**
Hooded merganser (*Lophodytes cucullatus*) – **B**
Common merganser (*Mergus merganser*)
Red-breasted merganser (*Mergus serrator*)
Ruddy duck (*Oxyura jamaicensis*) – **B**

Order Galliformes

Gray partridge (*Perdix perdix*) – **I, B**

Ring-necked pheasant (*Phasianus colchicus*) – **I, B**
Sharp-tailed grouse (*Tympanuchus phasianellus*) – **B**
Greater-prairie chicken (*Tympanuchus cupido*)
Wild turkey (*Meleagris gallopavo*) – **I, B**

Order Gaviiformes

Common loon (*Gavia immer*)

Order Podicepidiformes

Pied-billed grebe (*Podylimbus podiceps*) – **B**
Horned grebe (*Podiceps auritus*) – **B**
Red-necked grebe (*Podiceps grisegena*) – **B**
Eared grebe (*Podiceps nigricollis*) – **B**
Western grebe (*Aechmophorus occidentalis*) – **B**
Clark's grebe (*Aechmophorus clarkii*) – **B**

Order Pelicaniformes

American white pelican (*Pelecanus erythrocephalus*)
Double-crested cormorant (*Phalacrocorax auritus*) – **B**
Anhinga (*Anhinga anhinga*) – **A**

Order Ciconiiformes

American bittern (*Botaurus lentiginosus*) – **B**
Least bittern (*Ixobrychus exilis*)
Great blue heron (*Ardea Herodias*)
Great egret (*Ardea alba*) – **B**
Snowy egret (*Egretta thula*) – **B**
Little blue heron (*Egretta caerulea*)
Tri-colored heron (*Egretta tricolor*) – **A, B**
Cattle egret (*Bubulcus ibis*) – **B**
Green heron (*Boturides striatus*)
Black-crowned night-heron (*Nycticorax nycticorax*) – **B**
Yellow-crowned night-heron (*Nyctanassa violaceus*)
White ibis (*Eudocimus albus*) – **A**
White-faced ibis (*Plegadis chihi*) – **B**
Turkey vulture (*Cathartes aura*)

Order Falconiformes

Osprey (*Pandion haliaetus*)
Bald eagle (*Haliaeetus leucocephalus*) – **T**
Northern harrier (*Circus cyaneus*) – **B**
Sharp-shinned hawk (*Accipiter striatus*)
Cooper's hawk (*Accipiter cooperii*) – **B**
Northern goshawk (*Accipiter gentilis*)
Red-shouldered hawk (*Buteo lineatus*) – **A**
Broad-winged hawk (*Buteo platypterus*)
Swainson's hawk (*Buteo swainsoni*) – **B**
Red-tailed hawk (*Buteo jamaicensis*) – **B**
Ferruginous hawk (*Buteo regalis*) – **B**
Rough-legged hawk (*Buteo lagopus*)
Golden eagle (*Aquila chrysaetos*)
American kestrel (*Falco sparverius*) – **B**
Merlin (*Falco columbarius*)
Gyrfalcon (*Falco rusticolus*)
Peregrine falcon (*Falco peregrinus*)
Prairie falcon (*Falco mexicanus*)

Order Gruiformes

Yellow rail (*Coturnicops noveboracensis*) – **B**
Virginia rail (*Rallus limicola*) – **B**
Sora (*Porzana carolina*) – **B**
American coot (*Fulica Americana*) – **B**
Sandhill crane (*Grus canadensis*)
Whooping crane (*Grus americana*) – **E**

Order Charadriiformes

Black-bellied plover (*Pluvialis squatarola*)
American golden-plover (*Pluvialis dominica*)
Snowy plover (*Charadrius alexandrius*) – **A, B**
Semipalmated plover (*Charadrius semipalmatus*)
Piping plover (*Charadrius melodus*) – **T, B**
Killdeer (*Charadrius vociferous*) – **B**
Black-necked stilt (*Himantopus mexicanus*) – **A, B**
American avocet (*Recurvirostra americana*) – **B**
Greater yellowlegs (*Tringa melanoleuca*)
Lesser yellowlegs (*Tringa flavipes*)
Solitary sandpiper (*Tringa solitaria*)
Willet (*Catoptrophorus semipalmatus*) – **B**
Spotted sandpiper (*Actitis macularia*) – **B**
Upland sandpiper (*Bartamia longicauda*) – **B**
Whimbrel (*Numenius phaeopus*) – **A**
Long-billed curlew (*Numenius americanus*)
Hudsonian godwit (*Limosa haemastica*)
Marbled godwit (*Limosa fedoa*) – **B**
Ruddy turnstone (*Arenaria interpes*)
Red knot (*Calidris canutus*)
Sanderling (*Calidris alba*)
Semipalmated sandpiper (*Calidris pusilla*)
Western sandpiper (*Calidris mauri*)
Least sandpiper (*Calidris minutilla*)
White-rumped sandpiper (*Calidris fuscicollis*)
Baird's sandpiper (*Calidris bairdii*)
Pectoral sandpiper (*Calidris melanotos*)
Dunlin (*Calidris alpina*)
Stilt sandpiper (*Calidris himantopus*)
Buff-breasted sandpiper (*Tryngites subruficollis*)
Short-billed dowitcher (*Limnodromus griseus*)
Long-billed dowitcher (*Limnodromus scolopaceus*)
Wilson's snipe (*Gallinago delicata*) – **B**
American woodcock (*Scolopax minor*)
Wilson's phalarope (*Phalaropus tricolor*) – **B**
Red-necked phalarope (*Phalaropus lobatus*)
Red phalarope (*Phalaropus fulicaria*) – **A**
Parasitic jaeger (*Stercorarius parasiticus*) – **A**

Long-tailed jaeger (*Stercorarius longicaudus*) – **A**
Franklin's gull (*Larus pipixcan*) – **B**
Bonaparte's gull (*Larus philadelphia*)
Mew gull (*Larus canus*) – **A**
Ring-billed gull (*Larus delawarensis*) – **B**
California gull (*Larus californicus*) – **B**
Herring gull (*Larus argentatus*)
Thayer's gull (*Larus thayeri*) – **A**
Lesser black-backed gull (*Larus fuscus*)
Glaucous-winged gull (*Larus glaucescens*) – **A**
Glaucous gull (*Larus hyperboreus*) – **A**
Great black-backed gull (*Larus marinus*) – **A**
Sabine's gull (*Xema sabini*) – **A**
Black-legged kittiwake (*Rissa tridactyla*) – **A**
Caspian tern (*Sterna caspia*)
Common tern (*Sterna hirundo*) – **B**
Arctic tern (*Sterna paradisaea*) – **A**
Forster's tern (*Sterna forsteri*) – **B**
Least tern (*Sterna antillarum*) – **E**
Black tern (*Sterna niger*) – **B**

Order Columbiformes

Rock pigeon (*Columba livia)* – **I, B**
Eurasian collared-dove (*Streptopelia decaocto*) – **I**
Mourning dove (*Zenaida macroura*) – **B**

Order Cuculiformes

Black-billed cuckoo (*Coccyzus erythropthalmus*) – **B**
Yellow-billed cuckoo (*Coccyzus americanus*)

Order Strigiformes

Barn owl (*Tyto alba*) – **A**
Eastern screech owl (*Otus asio*)
Great horned owl (*Bubo virginianus*) – **B**
Snowy owl (*Nyctea scandiaca*)
Northern hawk-owl (*Surnia ulula*) – **A**
Burrowing owl (*Athene cunicularia*)
Long-eared owl (*Asio otus*)
Short-eared owl (*Asio flammeus*) – **B**
Northern saw-whet owl (*Aegolius acadicus*)

Order Caprimulgiformes

Common nighthawk (*Chordeiles minor*) – **B**
Whip-poor-will (*Caprimulgus vociferous*)

Order Apodiformes

Chimney swift (*Chaetura pelagica*)
Ruby-throated hummingbird (*Archilochus colubris*)

Order Coraciiformes

Belted kingfisher (*Ceryle alcyon*)

Order Piciformes

Lewis' woodpecker (*Melanerpes lewis*) – **A**
Red-headed woodpecker (*Melanerpes erythrocephalus*) – **B**
Red-bellied woodpecker (*Melanerpes carolinus*)
Yellow-bellied sapsucker (*Sphyrapicus varius*)
Downy woodpecker (*Picoides pubescens*) – **B**
Hairy woodpecker (*Picoides villosus*) – **B**
Northern flicker (*Colaptes auratus*) – **B**

Order Passeriformes

Olive-sided flycatcher (*Contopus cooperi*)
Eastern wood-pewee (*Contopus virens*)
Yellow-bellied flycatcher (*Empidonax flaviventris*)
Alder flycatcher (*Empidonax alnorum*)
Willow flycatcher (*Empidonax traillii*) – **B**
Least flycatcher (*Empidonax minimus*) – **B**
Eastern phoebe (*Saynoris phoebe*) – **B**
Say's phoebe (*Saynoris saya*) – **B**
Great crested flycatcher (*Myiarchus crinitus*)
Western kingbird (*Tyrannus verticalis*) – **B**
Eastern kingbird (*Tyrannus forficatus*) – **B**
Loggerhead shrike (*Lanius ludovicianus*) – **B**
Northern shrike (*Lanius excubitor*)
Yellow-throated vireo (*Vireo flavifrons*)
Blue-headed vireo (*Vireo solitarius*)
Warbling vireo (*Vireo gilvus*) – **B**
Philadelphia vireo (*Vireo philadelphicus*)
Red-eyed vireo (*Vireo olivaceus*)
Blue jay (*Cyanocitta cristata*)
Black-billed magpie (*Pica hudsonia*) – **B**
American crow (*Corvus brachyrhynchos*) – **B**
Common raven (*Corvus corax*)
Horned lark (*Eremophila alpestris*) – **B**
Purple martin (*Progne subis*) – **B**
Tree swallow (*Tachycineta bicolor*) – **B**
Violet-green swallow (*Tachycineta thalassina*) – **A**
Northern rough-winged swallow (*Stelgidopteryx serripennis*) – **B**
Bank swallow (*Riparia riparia*) – **B**
Cliff swallow (*Petrochelidon pyrrhonota*) – **B**
Barn swallow (*Hirundo rustica*) – **B**
Black-capped chickadee (*Poecile atricappila*) – **B**
Red-breasted nuthatch (*Sitta canadensis*)
White-breasted nuthatch (*Sitta carolinensis*) – **B**
Brown creeper (*Certhia americana*)
House wren (*Troglodytes aedon*) – **B**
Winter wren (*Troglodytes troglodytes*)
Sedge wren (*Cistothorus platensis*) – **B**
Marsh wren (*Cistothorus palustris*) – **B**
Golden-crowned kinglet (*Regulus satrapa*)
Ruby-crowned kinglet (*Regulus calendula*)
Eastern bluebird (*Sialia sialis*)
Mountain bluebird (*Sialia currucoides*)
Townsend's solitaire (*Myadestes townsendi*)
Veery (*Catharus fuscescens*)

Gray-cheeked thrush (*Catharus minimus*)
Swainson's thrush (*Catharus ustulatus*)
Hermit thrush (*Catharus guttatus*)
American robin (*Turdus migratorius*) – **B**
Gray catbird (*Dumetella carolinensis*) – **B**
Northern mockingbird (*Mimus polyglottos*)
Brown thrasher (*Toostoma rufum*) – **B**
European starling (*Sturnus vulgaris*) – **I, B**
American pipit (*Anthus rubescens*)
Sprague's pipit (*Anthus spragueii*) – **B**
Bohemian waxwing (*Bombycilla garrulous*)
Cedar waxwing (*Bombycilla cedrorum*) – **B**
Tennessee warbler (*Vermivora peregrina*)
Orange-crowned warbler (*Vermivora celata*)
Nashville warbler (*Vermivora ruficapilla*)
Yellow warbler (*Dendroica petechia*) – **B**
Chestnut-sided warbler (*Dendroica pensylvanica*)
Magnolia warbler (*Dendroica magnolia*)
Cape may warbler (*Dendroica tigrina*)
Yellow-rumped warbler (*Dendroica coronata*)
Black-throated green warbler (*Dendroica virens*)
Blackburnian warbler (*Dendroica fusca*)
Prairie warbler (*Dendroica discolor*) – **A**
Palm warbler (*Dendroica palmarum*)
Bay-breasted warbler (*Dendroica castanea*)
Blackpoll warbler (*Dendroica striata*)
Black-and-white warbler (*Mniotilta varia*)
American redstart (*Setophaga ruticilla*)
Prothonotary warbler (*Protonotaria citrea*) – **A**
Ovenbird (*Seiurus aurocapillus*)
Northern waterthrush (*Seiurus noveboracensis*)
Connecticut warbler (*Oporornis agilis*)
Mourning warbler (*Oporornis philadelphia*)
MacGillivray's warbler (*Oporornis tolmiei*)
Common yellowthroat (*Geothlipis trichas*) – **B**
Wilson's warbler (*Wilsonia pusilla*)
Canada warbler (*Wilsonia Canadensis*)
Yellow-brested chat (*Icteria virens*)
Scarlet tanager (*Piranga olivavea*)
Spotted towhee (*Pipilo maculatus*)
Eastern towhee (*Pipilo erythrophthalmus*)
American tree sparrow (*Spizella arborea*)
Chipping sparrow (*Spizella passerina*) – **B**
Clay-colored sparrow (*Spizella pallida*) – **B**
Field sparrow (*Spizella pusilla*)
Vesper sparrow (*Pooecetes gramineus*) – **B**
Lark sparrow (*Chondestes grammacus*) – **B**
Lark bunting (*Calamospiza melanocorys*) – **B**
Savannah sparrow (*Passerculus sandwichensis*) – **B**
Grasshopper sparrow (*Ammodramus savannarum*) – **B**
Baird's sparrow (*Ammodramus bairdii*) – **B**
Henslow's sparrow (*Ammodramus henslowii*) – **B**
Le Conte's sparrow (*Ammodramus leconteii*) – **B**
Nelson's sharp-tailed sparrow (*Ammodramus nelsoni*) – **B**
Fox sparrow (*Passerelia iliaca*)
Song sparrow (*Melospiza melodia*) – **B**
Lincoln sparrow (*Melospiza lincolnii*)
Swamp sparrow (*Melospiza georgiana*)
White-throated sparrow (*Zonotrichia albicollis*)
Harris' sparrow (*Zonotrichia querula*)
White-crowned sparrow (*Zonotrichia laucophrys*)
Dark-eyed junco (*Junco hyemalis*)
McCown's longspur (*Calcarius mccownii*)
Lapland longspur (*Calcarius lapponicus*)
Smith's longspur (*Calcarius pictus*)
Chestnut-collared longspur (*Calcarius ornatus*) – **B**
Snow bunting (*Plectrophenax nivalis*)
Northern cardinal (*Cardinalis cardinalis*) – **A**
Rose-breasted grosbeak (*Pheucticus ludovicianus*)
Black-headed grosbeak (*Pheucticus melanocephalus*)
Blue grosbeak (*Guiraca caerulea*)
Lazuli bunting (*Passerina amoena*)
Indigo bunting (*Passerina ciris*)
Dickcissel (*Spiza Americana*) – **B**
Bobolink (*Dolichonyx oryzivorus*) – **B**
Red-winged blackbird (*Agelaius phoeniceus*) – **B**
Eastern meadowlark (*Sturnella magna*) – **A**
Western meadowlark (*Sturnella neglecta*) – **B**
Yellow-headed blackbird (*Xanthocephalus xanthocephalus*) – **B**
Rusty blackbird (*Euphagus carolinus*)
Brewer's blackbird (*Euphagus cyanocephalus*) – **B**
Common grackle (*Quiscalus quiscula*) – **B**
Great-tailed grackle (*Quiscalus mexicanus*) – **A**
Brown-headed cowbird (*Molothrus ater*) – **B**
Orchard oriole (*Icterus spurius*) – **B**
Bullock's oriole (*Icterus bullockii*)
Baltimore oriole (*Icterus galbula*) – **B**
Pine grosbeak (*Pinicola enucleator*)
Purple finch (*Carpodacus purpureus*)
House finch (*Carpodacus mexicanus*)
Red crossbill (*Loxia curvirostra*)
White-winged crossbill (*Loxia leucoptera*)
Common redpoll (*Carduelis flammea*)
Hoary redpoll (*Carduelis hornemanni*)
Pine siskin (*Carduelis pinus*)
American goldfinch (*Carduelis tristis*) – **B**
Evening grosbeak (*Coccothraustes vespertinus*)
House sparrow (*Passer domesticus*) – **I, B**

Class Mammalia

Order Insectivora

Northern short-tailed shrew (*Blarina brevicauda*)
Masked shrew (*Sorex cinereus*)
Arctic shrew (*Sorex arcticus*)

Order Chiroptera

Little brown bat (*Myotis lucifugus*)

Order Carnivora

Coyote (*Canis latrans*)
Red fox (*Vulpes vulpes*)
Raccoon (*Procyon lotor*)
Long-tailed weasel (*Mustela frenata*)
Least weasel (*Mustela nivalis*)
Mink (*Mustela vison*)
Badger (*Taxidea taxus*)
Striped skunk (*Mephitis mephitis*)

Order Artiodactyla

White-tailed deer (*Odocoileus virginianus*)
Mule deer (*Odocoileus hemionus*)
Pronghorn (*Antilocapra americana*)

Order Rodentia

Fox squirrel (*Sciurus niger*)
Franklin's ground squirrel (*Spermophilus franklinii*)
Richardson's ground squirrel (*Spermophilus richardsonii*)
Thirteen-lined ground squirrel (*Spermophilus tridecemlineatus*)
Northern pocket gopher (*Thomomys talpoides*)
Beaver (*Castor canadensis*)
Northern grasshopper mouse (*Onychomys leuchogaster*)
White-footed mouse (*Peromyscus leucopus*)
Deer mouse (*Peromyscus maniculatus*)
Western harvest mouse (*Reithrodontomys megalotis*)
Meadow vole (*Microtus pennsylvanicus*)
Muskrat (*Ondatra zibethicus*)
House mouse (*Mus musculus*)
Norway rat (*Rattus norvegicus*)
Meadow jumping mouse (*Zapus hudsonius*)
Porcupine (*Erethizon dorsatum*)

Order Lagomorpha

Eastern cottontail (*Sylvilagus floridanus*)
Nuttall's cottontail (*Sylvilagus nuttallii*)
White-tailed jackrabbit (*Lepus townsendii*)

Class Osteichthyes

Order Salmoniformes

Northern pike (*Esox lucius*)

Order Cypriniformes

Common carp (*Cyprinus carpio*)
Fathead minnow (*Pimephales promelas*)
White sucker (*Catostomus commersoni*)

Order Siluriformes

Black bullhead (*Ameiurus melas*)

Order Perciformes

Yellow perch (*Perca flavescens*)
Walleye (*Stizostedion vitreum*)

Plants[1]

Absinth wormwood (*Artemisia absinthium)* - **I**
Alfalfa (*Medicago sativa)* - **I**
American Plum (*Prunus Americana*)
Aspen (*Populus* spp.)
Barley
Beans
Beggarticks (*Bidens* spp.)
Big Bluestem (*Andropogon gerardii*)
Blacksamson Echinacea (*Echinacea angustifolia*)
Blanket Flower (*Gaillardia aristata)*
Blue Gram (*Bouteloua gracilis*)
Breadroot Scurfpea (*Psoralea esculenta*)
Buffaloberry (*Shepherdia argentea)*
Bulrush (*Schoenoplectus* spp.)
Burreed (*Sparganium* spp.)
Canada Thistle (*Cirsium arvense)* - **I**
Caragana (*Caragana arborescens)* - **I**
Cattail (*Typha* spp.)
Chokecherry (*Prunus virginiana)*
Clubmoss (*Lycopodium* spp.)
Common Bladderwort (*Utricularia vulgaris)*
Common Reed (*Phragmites australis)*
Common Spikerush (*Eleocharis palustris)*
Common Yarrow (*Achillea millefolium)*
Coontail (*Ceratophyllum demersum)*
Corn
Cosmopolitan Bulrush (*Schoenoplectus maritimus)*
Cottonwood (*Populus deltoids)*
Crested Wheatgrass (*Agropyron cristatum)* - **I**
Curlyleaf Pondweed (*Potamogeton crispus)* - **I**
Dotted Blazing Star (*Liatris punctata*)
Duckweed (*Lemna* spp.)
Durum Wheat
Eurasian Watermilfoil (*Myriophyllum spicatum)* - **I**
Fendler Threeawn (*Aristida purpurea*)
Field Pennycress (*Thlaspi arvense)* - **I**

Flatspine Stickseed (*Lappula occidentalis)*
Flax
Foxtail Barley (*Hordeum jubatun)*
Goldenrod (*Solidago* spp.)
Green Ash (*Fraxinus pennsylvanica)*
Green Foxtail (*Setaria viridis)* - **I**
Green Needlegrass (*Stipa viridula)*
Groundplum Milkvetch (*Astragalus crassicarpus)*
Hoary Puccoon (*Lithospermum canescens)*
Inland Saltgrass (*Distichlis spicata)*
Intermediate Wheatgrass (*Agropyron intermedium)* - **I**
Juneberry (*Amelanchier alnifolia*)
Kentucky Bluegrass (*Poa pratensis)* - **I**
Lead Plant (*Amorpha canescens)*
Leafy Spurge (*Euphorbia esula)* - **I**
Lichens (*Lycopodium* spp.)
Little Bluestem (*Schizachyrium scoparium)*
Lotus Milkvetch (*Astragalus lotiflorus)*
Narrowleaf Goosefoot (*Chenopodium leptophyllum*)
Needle-and-Thread (*Stipa comata)*
Needleleaf Sedge (*Carex eleocharis)*
Nuttall's Alkaligrass (*Puccinellia nuttalliana)*
Oats
Pasture Sage (*Artemisia ludoviciana)*
Pinto Beans
Porcupine Grass (*Stipa spartea)*
Potato
Prairie Coneflower (*Ratibida columnifera)*
Prairie Cordgrass (*Spartina pectinata)*
Prairie Junegrass (*Koeleria macrantha*)
Prairie Sagewort (*Artemisia frigida)*
Prairie Sandreed (*Calamovilfa longifolia)*
Prairie Smoke (*Geum triflorum*)
Prairie Wild Rose (*Rosa arkansana*)
Purple Coneflower (*Echinacea angustifolia)*
Purple Loosestrife (*Lythrum salicaria)* - **I**
Reed Canary Grass (*Phalaris arundinacea*)
Rushes (*Juncus* spp.)
Russian Olive (*Elaeagnus angustifolia)* - **I**
Sago Pondweed (*Potamogeton pectinatus)*
Salt Cedar (*Tamarix ramosissima)* - **I**
Sandberg's Bluegrass (*Poa juncifolia)*
Scarlet Beeblossom (*Gaura coccinea)*
Seaside Arrowgrass (*Triglochin maritime)*
Sedges (*Carex* spp.)
Siberian Elm (*Ulmus pumila)* - **I**
Sideoats Grama (*Bouteloua curtipendula)*
Silverberry (*Elaeagnus commutate*)
Silverleaf Scurfpea (*Psoralea argophylla)*
Slender Wheatgrass (*Agropyron caninum)*
Sloughgrass (*Beckmannia syzigachne)*
Smartweed (*Polygonum* spp.)
Smooth Brome (*Bromus inermis*) - **I**
Softstem Bulrush (*Schoenoplectus validus)*
Spiny Phlox (*Phlox hoodii*)
Spring Wheat
Stiffstem Flax (*Linum rigidum)*
Sugar Beets
Sunflower
Sun Sedge (*Carex heliophila)*
Sweet Clover (*Melilotus* spp.) - **I**
Switchgrass (*Panicum virgatum)*
Tall Wheatgrass (*Agropyron elongatum)* - **I**
Tarragon (*Artemisia dracunculus)*
Threadleaf Sedge (*Carex filifolia)*
Three-square Bulrush (*Schoenoplectus americanus)*
Tule Bulrush *(Schoenoplectus acutus*)
Western Snowberry (*Symphoricarpos occidentalis)*
Western Wheatgrass (*Agropyron smithii*)
White Milkwort (*Polygala alba)*
White Prairieclover (*Dalea candida*)
White Sagebrush (*Artemisia ludoviciana)*
Woolly Plantain (*Plantago patagonica)*

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[1]Scientific names are not listed for domestic agricultural species.

B = denotes a strong evidence of nesting for a bird species
A = a bird species that has been seen once or only a few times and the refuge is outside of its normal range
I = bird or plant species not native to North America
T = a bird species classified as federally threatened
E = a bird species classified as federally endangered

Appendix H

Environmental Compliance

Environmental Action Statement

U.S. Fish and Wildlife Service, Region 6
Lakewood, Colorado

Within the spirit and intent of the Council on Environmental Quality's regulations for carrying out the National Environmental Policy Act and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record.

I have determined that the action of implementing the *Comprehensive Conservation Plan for Long Lake National Wildlife Refuge Complex* is found not to have significant environmental effects, as determined by the attached "Finding of No Significant Impact" and the environmental assessment as found with the draft comprehensive conservation plan.

J. Mitch King
Regional Director
U.S. Fish and Wildlife Service, Region 6
Lakewood, CO

9/15/2006
Date

Richard A. Coleman, Ph.D.
Assistant Regional Director
National Wildlife Refuge System
U.S. Fish and Wildlife Service, Region 6
Lakewood, CO

9/11/06
Date

Rod Krey
Refuge Program Supervisor (ND, SD)
U.S. Fish and Wildlife Service, Region 6
Lakewood, CO

8/23/06
Date

Paul Van Ningen
Project Leader
Long Lake National Wildlife Refuge Complex
Moffit, ND

8/23/06
Date

Finding of No Significant Impact

U.S. Fish and Wildlife Service, Region 6
Lakewood, Colorado

Fulfill the comprehensive conservation plan for Long Lake National Wildlife Refuge Complex

Four management alternatives for the Long Lake National Wildlife Refuge Complex were assessed as to their effectiveness in achieving the refuge complex's purposes and their impact on the human environment. Alternative A, the "no-action" alternative, would continue current management. Alternative B, "natural processes management," would focus on a return to more natural wetland and upland habitats and habitat functions through removal of water control structures and intensive reseeding to native plant communities. Alternative C, "single wildlife group-level intensive management," would promote intensive upland and wetland management. Management objectives for particular tracts would be based on fulfilling the life needs of either one wildlife taxonomic group or of closely related wildlife taxonomic groups.

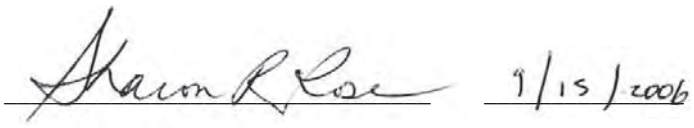
Alternative D, "target species group-level modified management" (the proposed action), would allow for intensive upland and wetland management where warranted in the complex. Management objectives for particular tracts would be based on fulfilling the life needs of a group of target (indicator) species, which would consist of members of various closely related wildlife taxonomic groups. Based on this assessment and comments received, I have selected alternative D as the preferred alternative for implementation.

The preferred alternative was selected because it best meets the purposes for which the Long Lake National Wildlife Refuge Complex was established and is preferable to the "no-action" alternative in light of physical, biological, economic, and social factors. The preferred alternative will continue to provide public access for wildlife-dependent recreation, environmental education, and interpretation.

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.

The following is a summary of anticipated environmental effects from carrying out 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 have a disproportionately high or adverse human health or environmental effect on minority or low-income populations.
- The state has been notified and given the opportunity to review the CCP and associated EA.



9/15/2006

J. Mitch King
Regional Director
U.S. Fish and Wildlife Service
Region 6
Lakewood, CO

Date

Appendix I

Long Lake National Wildlife Refuge Complex
Upland Plant Associations

- Based on ≥50 percent canopy cover dominance, unless otherwise specified
- Modified from Grant et al. 2004

Shrub and Tree Types

low shrub (generally <1.5 meters tall)

11 snowberry dense (other low shrub species total 0–25 percent); *other plants few or none*
12 snowberry (and other low shrub spp.); remainder mostly NATIVE grass-forb types
13 snowberry (and other low shrub spp.); remainder mostly Kentucky bluegrass
14 snowberry (and other low shrub spp.); remainder mostly smooth brome (or quackgrass)
15 silverberry; add modifier 15[2] = NATIVE grass-forb, 15[3] = KY bluegrass, 15[4] = brome (or quack)
18 meadowsweet; add modifier as above 18[2], 18[3], or 18[4]

tall shrub/tree (generally ≥1.5 meters tall)

21 chokecherry, buffaloberry, hawthorn, willow
23 exotic shrub: caraganna, Russian olive, Siberian elm
33 shade-tolerant woodland tree: green ash, box elder, elm

Native Grass-Forb and Forb Types (>95 percent dominance by native herbaceous plants, including forbs)[A, B]

41 dry cool season (sedges, green needlegrass, needle-and-thread, wheatgrass spp., prairie junegrass, forbs)
42 dry warm season (little bluestem, prairie sandreed, blue gramma, frobs)
43 mesic cool-warm mix (big bluestem, switchgrass, porcupine grass, prairie dropseed, forbs)
47 cactus
48 clubmoss

Exotic and Invaded Native Grass-Forb Types[A, B]

51 Kentucky bluegrass >*95 percent* (or >50 percent if mixed with other nonnatives)
52 Kentucky bluegrass and NATIVE grass-forbs, *KY bluegrass 50–95 percent*
53 NATIVE grass-forbs and Kentucky bluegrass, *KY bluegrass 5–50 percent*
61 smooth brome (or quackgrass) >*95 percent* (or >50 percent if mixed with other nonnatives)
62 smooth brome (or quackgrass) and NATIVE grass-forbs, *brome 50–95 percent*
63 NATIVE grass-forbs and smooth brome (or quackgrass), *brome 5–50 percent*
71 crested wheatgrass >*95 percent* (or >50 percent if mixed with other nonnatives)
72 crested wheatgrass and NATIVE grass-forbs, *crested wheatgrass 50–95 percent*
73 NATIVE grass-forbs and crested wheatgrass, *crested wheatgrass 5–50 percent*
98 tall exotic legume: sweetclover of alfalfa

Invasive Plant Types

81 leafy spruge
85 Canada thistle
87 wormwood
88 other invasive plants (user-defined)

Other

99 other – user defined

91 barren/unvegetated (e.g., rock, anthill, bare soil); dead, horizontal/flattened litter layer only
00 wetland vegetation (e.g., wet-meadow or shallow marsh plants)

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[a]Prairie rose is considered a native forb with respect to these categories.
[b]For any of the below categories, if the native forb composition is >50 percent, add a "9" as a modifier (e.g., 41 = 41**9**)
in the event of an apparent 50:50 mix of Kentucky bluegrass and smooth brome – consider as code **61

Appendix J

Tier II Dakota Skipper Habitat Suitability Criteria (Murphy 2005)

Definition of a Tier II Tract:
Service tract with ≥80 acres of native prairie and that does not meet Tier I criteria (i.e., *Service tract where a Dakota skipper has been documented, or a Service tract having native prairie that covers ≥10 contiguous acres and that is <1 mile from where the Dakota skipper has been documented*), except that a given tract is exempted if floristic surveys suggest the habitat is unsuitable for the Dakota skipper (see below regarding minimum floristics criteria for Tier II).

Floristic Surveys:
Vegetation composition on native prairie areas should be quantitatively examined, at least on a coarse level, to assess suitability of a tract for Dakota skippers. Such assessments need not be intensive, species-level botanical investigations. Frequency methods such as belt transects (Grant et al. 2004) or canopy cover methods (Daubenmire 1959) that focus simply on plant species groups of management concern for Dakota skipper are efficient and sufficient. Ideally, a general floristic assessment will serve multiple inventory or monitoring purposes. The following are minimum criteria for Dakota skipper habitat in dry-mesic mixed-grass prairie types where they potentially occur.

Dry-Mesic Mixed-Grass Prairie (e.g., rolling to hilly moraine and outwash sites; applies to most potential skipper habitat in North Dakota)

The following could be particularly negative for the skipper if dominant or co-dominant throughout an area: broad-leaved introduced grasses (e.g., smooth brome, quackgrass); low shrubs (e.g., western snowberry, silverberry); invasive plants (e.g., leafy spurge). Below are conservative criteria for determining whether a northern mixed-grass prairie might be suitable for the Dakota skipper, based on an expert Lepidopterist's subjective view of possibly suitable versus clearly unsuitable prairie management units at Lostwood NWR in North Dakota. These criteria assume that herbaceous (grass-forb) vegetation dominated by native species includes native forbs important to Dakota skipper as nectar sources (e.g., purple coneflower, harebell, and purple prairie clover), as well as abundant larval food plants (e.g., little bluestem). These broad criteria should be refined as species-habitat data become available from across the Dakota skipper's range.

Criteria for characterizing dry-mesic mixed-grass prairie as *possibly suitable* for the Dakota skipper:

1. average >50 percent occurrence by native herbaceous plant groups (types 41, 42, and 43 in Grant et al. [2004]; or by native herbaceous plants mixed with lesser amounts of Kentucky bluegrass; type 53);

2. average <20 percent occurrence by smooth brome-dominated and invasive plant-dominated types (types 61, 62, and 80s, collectively);

3) average <30 percent occurrence by low shrub-dominated types (types 11-18).

Other Habitat Suitability Criteria
A possible alternative for initially assessing and classifying tracts is to use "habitat classification" mapping data collected on the ground for use with RLGIS (version 3.0, HAPET, Bismarck, ND). For dry-mesic mixed-grass prairie, for example, the following RLGIS habitat subclasses might characterize dry-mesic mixed-grass prairie as possibly suitable for Dakota skipper:

1. average >50 percent occurrence comprised by two grass-forb subclasses: ">95 percent native grasses/forbs," and "native/nonnative mix with natives dominant (>50 percent)."

2. average <20 percent occurrence by smooth brome-dominated and invasive plant-dominated types: "smooth brome monotype [>95 percent]" plus any invasive plant subclass.

3. average <30 percent occurrence by two low shrub-dominated types: "snowberry [>25 percent]" and "silverberry [>25 percent]."

Definition of a Tier II Tract:
Service tract with ≥80 acres of native prairie and that does not meet Tier I criteria (i.e., *Service tract where a Dakota skipper has been documented, or a Service tract having native prairie that covers ≥10 contiguous acres and that is <1 mile from where the Dakota skipper has been documented*), except that a given tract is exempted if floristic surveys suggest the habitat is unsuitable for the Dakota skipper (see below regarding minimum floristics criteria for Tier II).

Floristic Surveys:
Vegetation composition on native prairie areas should be quantitatively examined, at least on a coarse level, to assess suitability of a tract for Dakota skippers. Such assessments need not be intensive, species-level botanical investigations. Frequency methods such as belt transects (Grant et al. 2004) or canopy cover methods (Daubenmire 1959) that focus simply on plant species groups of management concern for Dakota skipper are efficient and sufficient. Ideally, a general floristic assessment will serve multiple inventory or monitoring purposes. The following are minimum criteria for Dakota skipper habitat in dry-mesic mixed-grass prairie types where they potentially occur.

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Criteria for characterizing dry-mesic mixed-grass prairie as *possibly suitable* for the Dakota skipper:

1. average >50 percent occurrence by native herbaceous plant groups (types 41, 42, and 43 in Grant et al. [2004]; or by native herbaceous plants mixed with lesser amounts of Kentucky bluegrass; type 53);

2. average <20 percent occurrence by smooth brome-dominated and invasive plant-dominated types (types 61, 62, and 80s, collectively);

3) average <30 percent occurrence by low shrub-dominated types (types 11-18).

Other Habitat Suitability Criteria
A possible alternative for initially assessing and classifying tracts is to use "habitat classification" mapping data collected on the ground for use with RLGIS (version 3.0, HAPET, Bismarck, ND). For dry-mesic mixed-grass prairie, for example, the following RLGIS habitat subclasses might characterize dry-mesic mixed-grass prairie as possibly suitable for Dakota skipper:

1. average >50 percent occurrence comprised by two grass-forb subclasses: ">95 percent native grasses/forbs," and "native/nonnative mix with natives dominant (>50 percent)."

2. average <20 percent occurrence by smooth brome-dominated and invasive plant-dominated types: "smooth brome monotype [>95 percent]" plus any invasive plant subclass.

3. average <30 percent occurrence by two low shrub-dominated types: "snowberry [>25 percent]" and "silverberry [>25 percent]."

Appendix K

North Dakota Species of Conservation Priority

Below is a list of the wildlife species (e.g., birds, mammals, reptiles, amphibians, fish) which are listed as North Dakota Species of Conservation Priority (Hagen et al. 2005) that are known or expected to occur on Service lands within the refuge complex. North Dakota "Species of Conservation Concern" are separated into three different categories (levels 1, 2, and 3), giving priority to species which need conservation the most.

Level 1 (24 of 29 species)

horned grebe
American white pelican
American bittern
Swainson's hawk
ferruginous hawk
yellow rail
willet
upland sandpiper
long-billed curlew
marbled godwit
Wilson's phalarope
Franklin's gull
black tern
black-billed cuckoo
Sprague's pipit
grasshopper sparrow
Baird's sparrow
Nelson's sharp-tailed sparrow
lark bunting
chestnut-colored longspur
Canadian toad
plains spadefoot toad
smooth green snake
western hognose snake

Level 2 (23 of 41 species)

northern pintail
canvasback
redhead
northern harrier
golden eagle
bald eagle
prairie falcon
sharp-tailed grouse
greater-prairie chicken[1]
piping plover
American avocet
least tern
short-eared owl
burrowing owl
red-headed woodpecker
loggerhead shrike
sedge wren
dickcissel
Le Conte's sparrow
bobolink
common snapping turtle
northern red-bellied snake
Richardson's ground squirrel

Level 3 (4 of 30 species)

whooping crane
peregrine falcon
McCown's longspur[1]
Arctic shrew

[1]The historical range of these species included parts of the refuge complex and they have been documented on Service lands within the refuge complex, but it is not likely that they presently occur on Service lands within the refuge complex.

Appendix L

Secondary (Target) Species

Swans, Ducks and Geese

greater white-fronted goose (DW, UW)[1]
snow goose (DW, UW)
Ross' goose (DW, UW)
Canada goose[2] (DW, UW)
cackling goose (DW, UW)
Tundra swan (DW, UW)
gadwall (DW, UW)
wood duck (UW)
American wigeon (DW, UW)
blue-winged teal (DW, UW, NP, OC)
northern shoveler (DW, UW, NP, OC)
northern pintail (DW, UW, NP, OC)
green-winged teal (DW, UW)
canvasback (DW, UW)
ring-necked duck (DW, UW)
lesser scaup (DW, UW, NP, OC)
bufflehead (DW, UW)
common goldeneye (DW, UW)
hooded merganser (DW, UW)
common merganser (DW, UW)
ruddy duck (DW, UW)

Gallinaceous Birds

ring-necked pheasant (DW, UW, NP, OC, WV)

Grebes

pied-billed grebe (DW, UW)
horned grebe (DW, UW)
red-necked grebe (UW)
eared grebe (DW, UW)
Clark's grebe (DW, UW)

Pelicans

American white pelican (DW, UW)

Cormorants

double-crested cormorant (DW, UW)

Herons and Egrets

great blue heron (DW, UW)
great egret (DW, UW)
snowy egret (DW, UW)
cattle egret (DW, UW)
black-crowned night-heron (DW, UW)

Ibises

white-faced ibis (DW, UW)

Hawks and Eagles

bald eagle (DW, UW)
Swainson's hawk (NP, OC, WV)
red-tailed hawk (NP, OC, WV)
ferruginous hawk (NP, OC, WV)
rough-legged hawk (NP, OC, WV)
golden eagle (NP, OC, WV)

Falcons

American kestrel (NP, OC, WV)
Merlin (NP, OC, WV)
peregrine falcon (DW, UW, NP, OC, WV)
prairie falcon (NP, OC, WV)

Rails

Virginia rail (DW, UW)
sora (DW, UW)
American coot (DW, UW)

Cranes

whooping crane (DW, UW)

Plovers

semipalmated plover (DW, UW)
killdeer (DW, UW)

Sandpipers and Phalaropes

greater yellowlegs (DW, UW)
lesser yellowlegs (DW, UW)
willet (DW, UW)
spotted sandpiper (DW, UW)
sanderling (DW, UW)
semipalmated sandpiper (DW, UW)
least sandpiper (DW, UW)
white-rumped sandpiper (DW, UW)
pectoral sandpiper (DW, UW)
stilt sandpiper (DW, UW)
short-billed dowitcher (DW, UW)
long-billed dowitcher (DW, UW)
Wilson's snipe (DW, UW)
red-necked phalarope (DW, UW)

Gulls and Terns

ring-billed gull (DW, UW)
California gull (DW, UW)
herring gull (DW, UW)
common tern (DW, UW)
Forster's tern (DW, UW)

Doves

mourning dove (NP, OC, WV)

Typical Owls

snowy owl (NP, OC, WV)
short-eared owl (NP, OC, WV)

Night Jars

common nighthawk (NP, OC, WV)

Tyrant Flycatchers

Say's phoebe (NP, OC, WV)
western kingbird (NP, OC, WV)
eastern kingbird (NP, OC, WV)

Shrikes

loggerhead shrike (NP, OC, WV)
northern shrike (NP, OC, WV)

Magpies

black-billed magpie (NP, OC, WV)

Larks

horned lark (NP, OC, WV)

Swallows

tree swallow (DW, UW, NP, OC, WV)
northern rough-winged swallow (DW, UW)
Bank's swallow (DW, UW, NP, OC, WV)
Cliff'swallow (NP, OC, WV)
barn swallow (NP, OC, WV)

Wrens

sedge wren (DW, UW, NP, OC, WV)
marsh wren (DW, UW)

Thrushes

mountain bluebird (NP, OC, WV)

Wagtails and Pipits

American pipit (DW, UW)
Sprague's pipit (NP, OC, WV)

Wood Warblers

common yellowthroat (DW, UW, NP, OC, WV)

Sparrows

American tree sparrow (NP, OC, WV)
clay-colored sparrow (NP, OC, WV)
field sparrow (NP, OC, WV)
vesper sparrow (NP, OC, WV)
lark bunting (NP, OC, WV)
Savannah sparrow (NP, OC, WV)
Baird's sparrow (NP, OC, WV)
Le Conte's sparrow (DW, UW, NP, OC, WV)
Nelson's sharp-tailed sparrow (DW, UW, NP, OC, WV)
swamp sparrow (DW, UW)
lapland longspur (NP, OC, WV)
snow bunting (NP, OC, WV)

Cardinals, Grosbeaks and Allies

Dickcissel (NP, OC, WV)

Blackbirds and Orioles

red-winged blackbird (DW, UW, NP, OC, WV)
yellow-headed blackbird (DW, UW, NP, OC, WV)
Brewer's blackbird (DW, UW, NP, OC, WV)
common grackle (DW, UW, NP, OC, WV)

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[1]Indicates the habitat type(s) that will most often be used by each species on lands in the refuge complex if this CCP's biological objectives are met (DW = developed wetlands; UW = undeveloped wetlands; NP = native prairie; OC = old cropland; WV = planted and exotic woody vegetation).

[2]Species names in **bold** indicate those that presently nest on lands in the refuge complex.

Appendix M

Long Lake National Wildlife Refuge Complex Habitat Cover Type (Subclass) List

Habitat cover types used when classifying vegetative cover on all fee-title lands in the complex between 2003 and 2006. All cover types were mapped at 0.25 acres, except leafy spurge and wetland areas that were mapped at any size.

System[1]	Subsystem[2]	Subclass[3]	NVCS[4]
Grass	Natural	Native grasses/forbs >95%	V HD V A 5 N
Grass	Planted	Native grasses/forbs >95%	V HD V A 5 C
Grass	Natural	Native/nonnative mix, natives >50%	V HD V A 5 N
Grass	Planted	Native/nonnative mix, natives >50%	V HD V A 5 C
Grass	Natural	Nonnative/native mix, nonnatives >50%	V HD V A 5 N
Grass	Planted	Nonnative/native mix, nonnatives >50%	V HD V A 5 C
Grass	Natural	Nonnative grasses/forbs >95%	V HD V A 5 N
Grass	Natural	Smooth brome monotype	V HD V A 5 N c
Grass	Natural	Crested wheatgrass monotype	V HD V A 5 N f
Grass	Planted	Introduced cools season grasses and legumes (DNC)	V HD V A 5 C a
Grass	Natural	Other invasive plants or undesirable plants ≥ 50%	—
Grass	Natural	Absinth wormwood ≥ 50%	V HD V A 5 N b
Grass	Natural	Canada thistle ≥ 50%	V HD V A 5 N b
Grass	Natural	Leafy spurge ≥ 50%	V HD V B 2 N a
Shrub	Natural	Silverberry >25%	V SD III B 2 N a
Shrub	Natural	Western snowberry >25%	V SD III B 2 N a
Shrub	Natural	Narrow-leaved meadowsweet >25%	—
Shrub	Natural	Other low deciduous shrubs >25%	—
Shrub	Natural	Unknown low deciduous shrub(s) >25%	—
Shrub	Planted	Unknown low deciduous shrub(s) >25%	—
Shrub	Natural	Buffaloberry >25%	V SD III B 2 N a
Shrub	Natural	Chokecherry, juneberry, hawthorn association >25%	V SD III B 2 N a
Shrub	Natural	Caragana >25%	V SD III B 2 N a
Shrub	Planted	Caragana >25%	V SD III B 2 C
Shrub	Natural	Rocky mountain juniper >25%	V SD III A 3 N a
Shrub	Natural	Russian olive >25%	V SD III A 4 N b
Shrub	Planted	Russian olive >25%	V SD III B 2 C
Shrub	Natural	Willow >25%	V SD III B 2 N c
Shrub	Planted	Other nonnative shrubs, lilac, etc >25%	V SD III B 2 C
Shrub	Natural	Other tall deciduous shrubs >25%	—
Shrub	Planted	Other tall deciduous shrubs >25%	—
Shrub	Natural	Other tall evergreen shrubs >25%	—
Shrub	Planted	Other tall evergreen shrubs >25%	—
Shrub	Natural	Unknown tall deciduous shrub(s) >25%	—
Shrub	Planted	Unknown tall deciduous shrub(s) >25%	—
Shrub	Natural	Unknown tall evergreen shrub(s) >25%	—
Shrub	Planted	Unknown tall evergreen shrub(s) >25%	—
Woodland	Natural	Cottonwood between 25% and 60%	V TD II B 2 N a
Woodland	Planted	Cottonwood between 25% and 60%	V TD II B 2 C
Woodland	Natural	Deciduous tree(s) between 25% and 60%	V TD II B 2 N a
Woodland	Planted	Deciduous tree(s) between 25% and 60%	V TD II B 2 C

System[1]	Subsystem[2]	Subclass[3]	NVCS[4]
Woodland	Natural	*Dead tree(s) between 25% and 60%*	—
Woodland	Planted	Dead tree(s) between 25% and 60%	—
Woodland	Natural	Elm, ash, hackberry association between 25% and 60%	V TD II B 2 N a
Woodland	Planted	Elm, ash, hackberry association between 25% and 60%	V TD II B 2 C
Woodland	Natural	Evergreen tree(s) between 25% and 60%	—
Woodland	Planted	Evergreen tree(s) between 25% and 60%	—
Woodland	Natural	Green ash, box elder, elm association between 25% and 60%	V TD II B 2 N a
Woodland	Planted	*Green ash, box elder, elm association between 25% and 60%*	V TD II B 2 C
Woodland	Planted	Mix of trees and tall shrubs between 25% and 60%	—
Woodland	Natural	Mixed evergreen and deciduous trees between 25% and 60%	V TD II C 3 N a
Woodland	Planted	Mixed evergreen and deciduous trees between 25% and 60%	V TD II C 3 C
Woodland	Natural	Other deciduous trees between 25% and 60%	—
Woodland	Planted	Other deciduous trees between 25% and 60%	—
Woodland	Natural	Other evergreen trees between 25% and 60%	—
Woodland	Planted	Other evergreen trees between 25% and 60%	—
Woodland	Natural	Unknown deciduous tree(s) between 25% and 60%	—
Woodland	Planted	Unknown deciduous tree(s) between 25% and 60%	—
Woodland	Natural	Unknown evergreen tree(s) between 25% and 60%	—
Woodland	Planted	Unknown evergreen tree(s) between 25% and 60%	—
Forest	Natural	Cottonwood >60%	V TD I B 2 N a
Forest	Planted	Cottonwood >60%	V TD I B 2 C
Forest	Natural	Deciduous tree(s) >60%	V TD I B 2 N a
Forest	Planted	Deciduous tree(s) >60%	V TD I B 2 C
Forest	Natural	Dead tree(s) >60%	—
Forest	Planted	Dead tree(s) >60%	—
Forest	Natural	Elm, ash, hackberry association >60%	V TD I B 2 N a
Forest	Planted	Elm, ash, hackberry association >60%	V TD I B 2 C
Forest	Natural	Evergreen tree(s) >60%	—
Forest	Planted	Evergreen tree(s) >60%	—
Forest	Natural	Green ash, box elder, elm association >60%	V TD I B 2 N a
Forest	Planted	Green ash, box elder, elm association >60%	V TD I B 2 C
Forest	Planted	Mixed evergreen and deciduous trees >60%	V TD I C 3 C
Forest	Planted	Mix of trees and tall shrubs >60%	—
Forest	Natural	Other deciduous trees >60%	—
Forest	Planted	Other deciduous trees >60%	—
Forest	Natural	Other evergreen trees >60%	—
Forest	Planted	Other evergreen trees >60%	—
Forest	Natural	Unknown deciduous tree(s) >60%	—
Forest	Planted	Unknown deciduous tree(s) >60%	—
Forest	Natural	Unknown evergreen tree(s) >60%	—
Forest	Planted	Unknown evergreen tree(s) >60%	—
Crop	Planted	Bare soil crop field	V HD V D 2 C
Crop	Planted	Fallow crop field	V HD V D 2 C
Crop	Planted	Row crop	V HD V D 2 C
Crop	Planted	Small grain crop	V HD V D 2 C
Wetland	—	Lake	—
Wetland	—	Riverine wetland	—
Wetland	—	Semipermanent wetland	—
Wetland	—	Seasonal wetland	—
Wetland	—	Temporary wetland	—
Wetland	—	Other wetland area	—
Barren	—	Bare soil	—

System[1]	Subsystem[2]	Subclass[3]	NVCS[4]
Barren	—	Beach - mud	—
Barren	—	Beach - gravel	—
Barren	—	Beach/sand bar	—
Barren	—	Blow-out	—
Barren	—	Headquarters/infrastructure	—
Barren	—	Paved road	—
Barren	—	Gravel road/trail	—
Barren	—	Gravel pit	—
Barren	—	Wildfire area	—

[1] System – General vegetation type category.
[2] Subsystem – Natural (naturally occurring vegetation) or planted (vegetation intentionally planted by humans).
[3] Subclass – Most habitat cover types can be cross-walked into the National Vegetation Classification System.
[4] NVCS – National Vegetation Classification System.

Appendix N

Refuge Operating Needs System

Tier 1 Projects					
Project #	Station[1]	Project Title	Cost Estimate First Year Need (1000s)	Personnel FTE	Recurring Annual Need (1000s)
96011	LNL NWR	Expand integrated pest management to biologically address invasive species control problems	$128	1.0	$63
96038	LNL NWR	Provide station support services addressing six priority public (outdoor recreation planner)	$140	1.0	$75
98019	LNL NWR	Provide station data analysis capability through technical support (GIS/ADP biologist)	$154	1.0	$89
96004	LNL NWR	Reduce resource losses to disease by enhancing monitoring and disease control (biological technician)	$128	1.0	$63
96043	LNL NWR	Protect refuge water rights by completing essential area capacity study/evaluation	$164	—	$10
96030	LNL NWR	Native prairie restoration through focused prescribed fire application (fire management officer)	$154	1.0	$89
98001	LNL WMD	Easement mapping and enforcement assistance to address mandates and resource protection needs (biologist)	$128	1.0	$63
96002	LNL WMD	Initiate essential resource inventory and accelerate adaptive management (biologist)	$154	1.0	$89
99001	LNL WMD	Address essential visitor safety and resource protection (law enforcement officer)	$140	1.0	$75
98025	LNL WMD	Enhance satellite refuge management capability (refuge manager)	$140	1.0	$75
99002	LNL WMD	Address essential administrative operations and functions (administrative assistant)	$123	1.0	$58
96015	LNL WMD	Develop water resources and wetland habitats across districts providing essential heavy equipment	$159	—	$10

00002	SLD NWR	Develop essential refuge maintenance capability for Slade NWR (maintenance worker)	$128	1.0	$64
00001	SLD NWR	Convert Slade NWR tame grass to mixed-grass prairie	$65	—	$25
98014	SLD NWR	Monitor water supply and contaminant threats to Slade NWR due to adjacent irrigation pivot irrigation	$71	—	$25

[1]*LNL = Long Lake; SLD = Slade*

Tier 2 Projects				
Project #	Station[1]	Project Title	Cost Estimate First Year Need (1000s)	Recurring Annual Need (1000s)
00014	LNL NWR	Develop refuge low level water management capability by constructing outlet WCS	$440	$10
00012	LNL NWR	Develop water management capability by constructing unit 3 pumping station facility	$290	$15
00013	LNL NWR	Develop water management capability by constructing unit 2 pumping station facility	$290	$15
98029	LNL NWR	Create predator exclusion—convert pintail point to island	$105	$5
98028	LNL NWR	Create predator exclusion—convert east peninsula to island	$126	$2
00010	LNL NWR	Purchase aircraft to conduct aerial surveys of habitats and populations in the state	$290	$20
98018	LNL NWR	Develop moist-soil units to increase migratory bird support capability by constructing new levees	$342	$14
96000	LNL NWR	Develop dikes and wcss to increase freshwater wetland habitat.	$442	$15
96035	LNL NWR	Enhance refuge waterfowl recruitment by constructing secure long-term nesting islands.	$200	$20
96040	LNL NWR	Initiate drinking water monitoring program to meet agency and environmental mandates and public safety.	$23	$4
00005	LNL NWR	Provide refuge complex fire program mission support identified in approved fire management plan.	$205	$30
00006	LNL NWR	Acquire GIS computer, software, and digital data to support station decisions and planning.	$88	$13
96039	LNL NWR	Support essential fire protection and fire program activities by providing a hydrant water supply.	$26	$2
96001	LNL NWR	Address watershed management needs by improving water management facilities.	$320	$40
96029	LNL NWR	Enhance seasonal support of refuge mission by providing temporary quarters.	$132	$7
03000	LNL NWR	Provide law enforcement officer to achieve full deployment needs of full time officers.	$142	$71
00008	LNL NWR	Locate all real property developments with global position coordinates for database tracking.	$26	$1

Project #	Station[1]	Project Title	Cost Estimate First Year Need (1000s)	Recurring Annual Need (1000s)
96036	LNL WMD	Mitigate low waterfowl recruitment in high pair zones by providing secure district nesting islands.	$200	$20
98002	LNL WMD	Provide logistical support for district habitat development by purchasing a semi-tractor/trailer.	$162	$10
98010	LNL WMD	Provide district (remote) logistical maintenance support capability by acquiring a maintenance vehicle.	$54	$5
98023	LNL WMD	Increase migratory bird resource support by developing levees on Adams WPA.	$140	$10
98026	LNL WMD	Develop consistent, reliable access to Guthmiller WPA to aid management and public use.	$24	$2
98027	LNL WMD	Develop consistent, reliable access to Sisco-Fallgaeter WPA to aid management and public use.	$35	$2
98020	LNL WMD	Increase snow goose issue awareness and increase harvest opportunity.	$22	$5
98021	LNL WMD	Increase migratory bird resource support by developing impoundment on Schiermeister WPA.	$173	$10
96031	LNL WMD	Address disease control (avian botulism) carcass disposal needs by providing mobile incinerator.	$29	$2
98022	LNL WMD	Increase migratory bird resource support by developing levees on Schauer WPA.	$151	$10
00011	SLD NWR	Provide equipment to address invasive species threat to refuge uplands.	$66	$13
00004	SLD NWR	Provide basic daily operations equipment.	$381	$20

[1]*LNL = Long Lake; SLD = Slade*

Appendix O

Maintenance Management System

Station	Project Title	Cost Estimate (1000s)	SAMMS Work Order #
LNL WMD	Replace 10 miles of deteriorated WPA fence.	$55	00105967
LNL WMD	Replace 10 miles of deteriorated WPA fence.	$60	00105968
LNL WMD	Replace 10 miles of deteriorated WPA fence.	$60	00105969
SLD NWR	Construct office/shop.	$835	00110656
LNL NWR	Replace worn forklift.	$50	00105920
LNL WMD	Replace 10 miles of deteriorated WPA fence.	$60	00105970
LNL WMD	Replace 10 miles of deteriorated WPA fence.	$60	00105971
LNL NWR	Provide refuge complex fire program mission support identified in approved fire management plan.	$216	00123546
LNL NWR	Rehabilitate well and water lines to Q-14 and old office/temporary quarters.	$35	00105922
FCL NWR	Replace 5 miles of Florence Lake NWR fence.	$35	00105972
FCL NWR	Replace 5 miles of Florence Lake NWR fence.	$30	00105973
FCL NWR	Replace 5 miles of Florence Lake NWR fence.	$30	00105974
SLD NWR	Replace 5 miles of Slade NWR fence.	$35	00105975
SLD NWR	Replace 5 miles of Slade NWR fence.	$30	00105976
SLD NWR	Replace 5 miles of Slade NWR fence.	$30	00105977
LNL NWR	Develop water management capability by constructing unit 3 pumping station facility.	$303	00123562
LNL NWR	Replace 7.5 miles of Long Lake NWR fence.	$46	00105979
LNL NWR	Develop water management capability by constructing unit 2 pumping station facility.	$303	00123565
LNL NWR	Replace 7.5 miles of Long Lake NWR fence.	$46	00105980
LNL NWR	Replace 7.5 miles of Long Lake NWR fence.	$46	00105981
LNL NWR	Replace 7.5 miles of Long Lake NWR fence.	$46	00105982
LNL WMD	Rehabilitate Small WPA interpretive foot trail.	$60	00105984
LNL NWR	Repair quarters 140.	$50	00105987
LNL WMD	Repair Rath WPA islands.	$30	01114916
LNL WMD	Repair Sisco-Fallgaeter WPA island.	$30	01114931
LNL WMD	Repair Thacker WPA island.	$30	01114940
LNL WMD	Repair Almer WPA island.	$30	01114946
LNL WMD	Repair PDL-1D WPA island.	$30	01114951
LNL NWR	Repair Schauer WPA Islands.	$30	01114959
LNL WMD	Repair Rath WPA 79-acre impoundment.	$70	01114969
LNL NWR	Replace Polaris four wheeler.	$6	01115411
LNL NWR	Replace Bombardier four wheeler.	$6	01115481
LNL NWR	Replace 350HP airboat.	$31	01115493
LNL NWR	Replace 350/400HP airboat.	$25	01115503

Station	Project Title	Cost Estimate (1000s)	SAMMS Work Order #
LNL NWR	Replace grass drill.	$16	01115538
LNL NWR	Replace no till grass drill.	$16	01115550
LNL NWR	Replace water control pump.	$30	01115696
LNL NWR	Replace power plant generator.	$15	01115698
LNL NWR	Replace worn road grader.	$190	01115707
LNL NWR	Replace worn Bobcat.	$26	01115710
LNL NWR	Replace worn 1993 sickle bar mower.	$5	01115717
LNL NWR	Replace incinerator.	$10	01115722
LNL NWR	Replace JD rotary mower.	$10	01115728
LNL NWR	Replace worn riding lawn mower.	$15	01115745
LNL NWR	Replace worn garden tractor.	$13	01115750
LNL NWR	Replace worn 1992 lawn tractor.	$15	01115754
LNL NWR	Replace worn 1992 farm tractor.	$85	01115755
LNL NWR	Replace Pulvi-Mulcher.	$10	01115833
LNL NWR	Replace outdated worn fire equipment.	$21	01115840
LNL NWR	Replace 52 pumper unit.	$21	01115865
LNL NWR	Replace worn snowmobile.	$6	01115874
LNL NWR	Replace implement sprayer.	$8	01115876
LNL NWR	Replace pickup sprayer.	$6	01115879
LNL NWR	Replace Cat dozer.	$95	01115883
LNL NWR	Replace worn JD tractor.	$25	01115887
LNL NWR	Replace JD tractor with loader (7710).	$96	01115892
LNL NWR	Replace worn trailer.	$11	01115897
LNL NWR	Replace worn trailer.	$37	01115901
LNL NWR	Replace worn heavy equipment trailer.	$37	01115903
LNL NWR	Replace worn wetliner.	0	01116088
LNL NWR	Replace worn Ford pickup.	$31	01116093
LNL NWR	Replace worn Dodge 4X4 pickup.	$31	01116095
LNL NWR	Replace worn maintenance truck.	$37	01116098
LNL NWR	Replace dump truck.	$93	01116114
LNL NWR	Replace semi-tractor.	$81	01116115
LNL NWR	Replace Dodge pickup.	$28	01116125
LNL NWR	Replace Dodge spray truck.	$31	01116129
LNL NWR	Replace Chevy Tahoe.	$31	01116166
LNL NWR	Replace Jeep Wrangler nest searching vehicle.	$26	01116168
LNL NWR	Replace Jeep Wrangler nest searching vehicle.	$26	01116171
LNL NWR	Replace 1993 Chevy Surburban.	$34	01116174
LNL NWR	Replace Polaris Sportsman 500 four-wheeler.	$6	01116208
LNL NWR	Replace worn snowblower.	$8	01116230
LNL NWR	Replace outdated and worn implement disc.	$7	01116236
LNL NWR	Replace obsolete cultivator.	$7	01116240
LNL WMD	Construction Costs (Route 103-105, 2.1 mi, Parking lots 903-910)	$1100	02120118

Station	Project Title	Cost Estimate (1000s)	SAMMS Work Order #
LNL WMD	Preliminary Engineering Costs (Route 103-105, 2.1 mi, Parking lots 903-910)	$104	02120156
LNL WMD	Construction Costs (Route 100-102, 2.3Mi, Parking lots 900-902, 904)	$1100	02120163
LNL NWR	Preliminary Engineering Costs - 5 roads, 5 parking areas (Routes 10, 11, 100-103, 900-903, 910; 10.2 mi)	0	02120191
LNL NWR	Construction Costs - 5 roads, 5 parking areas (Routes 10, 11, 100-103, 900-903, 910; 10.2 mi)	$365	02120236
LNL WMD	Preliminary Engineering Costs (Route 100-102, 2.3mi, Parking lots 900-902, 904)	$104	02120243
LNL WMD	Repair East Lost Lake Dam #2.	$35	02120282
LNL NWR	Repair G-19a dam.	$30	02120290
LNL NWR	Repair G-19 dam.	$28	02120296
LNL NWR	Replace 2002 Dodge Pickup.	$24	02120613
LNL NWR	Repair east courtyard rockwork.	$40	03126846
LNL WMD	Construct kiosks.	$113	03130765
LNL NWR	Replace unsafe maintenance shop.	$420	03126912
LNL NWR	Construct vehicle cold storage shed.	$144	03126915
LNL NWR	Replace 2003 Chevy pickup.	$22	03127090
LNL NWR	Replace 2003 Chevy pickup.	$22	03127091
LNL NWR	Replace 2003 Ford crew cab.	$35	03127094
LNL NWR	Replace 2002 550 Ford fire truck (#275).	$33	03127102
LNL NWR	Replace 2001 550 Ford fire pickup.	$33	03127103
LNL NWR	Replace 2002 52 pumper unit.	$21	03127104
LNL NWR	Replace Wishek 12’ disk.	$14	03127105
LNL NWR	Replace 2002 Polaris 4x4 Ranger.	$8	03127107
LNL NWR	Replace 2002 Polaris 4X4 Ranger.	$8	03127108
LNL NWR	Replace storage building.	$256	04133791
LNL NWR	Repair/rehabilitate old refuge headquarters for use as visitor center.	$275	04133795
LNL NWR	Replace red Honda ATV.	$5	04133804
LNL NWR	Replace 2003 yellow Honda ATV.	$5	04133806
LNL NWR	Replace Type 4 model 52 unit (frieghtliner).	$44	04133815
LNL NWR	Replace 2003 Chevy crew cab.	$24	04133818
LNL NWR	Replace freightliner truck used for water transport.	$69	04133819
LNL NWR	Replace 2003 Honda ATV Rancher.	$5	04133824
LNL NWR	Replace Zone LEO Chevy Tahoe.	0	05139499
LNL NWR	Repair Springwater NWR Dam.	$235	05137382
LNL NWR	Replace heating system in headquarter office.	$28	05138269
LNL NWR	Replace electrical and plumbing maintenance shop.	$75	05138271
LNL NWR	Repair Sunburst low hazard dam.	$26	05138274
LNL NWR	Replace 2004 JD Payloader.	$105	05138304
LNL NWR	Replace zone LEO Chevy Tahoe.	$34	05139498
LNL NWR	Rehab unit 2 marsh dike.	$80	92105949

Station	Project Title	Cost Estimate (1000s)	SAMMS Work Order #
LNL NWR	Rehabilitate equipment storage freeze protection system.	$60	93109662
LNL NWR	Rehabilitate public use area.	$60	93105950
LNL NWR	Rehabilitate oil and paint storage building.	$30	93105928
LNL NWR	Repair artesian well.	$30	93105929
LNL NWR	Replace residence heating systems.	$31	94105930
LNL NWR	Rehabilitate the “B” dike spillway.	$35	94105951
LNL NWR	Repair access road to east peninsula.	$150	94105953
LNL NWR	Replace worn transport trailer.	$50	95105934
LNL NWR	Construct “D” dike.	$1298	96109814
LNL NWR	Provide grassland management equipment building to increase longevity of service.	$131	96123567
LNL WMD	Enhance visitor services/outreach by developing vistor contact station.	$61	96123854
LNL NWR	Increase refuge mission support capability by expanding office space.	$654	96110662
LNL NWR	Enhance refuge wildlife-oriented recreation opportunities by developing refuge interpretive trail.	$179	96123851
LNL WMD	Provide fabrication shop facility.	$111	96123547
LNL NWR	Replace flatbed/grain truck.	$86	97105965
LNL NWR	Replace badly worn dump truck.	$77	97105935
LNL NWR	Replace septic system.	$30	97105936
LNL NWR	Repair sewage treatment system for office/headquaters facility.	$35	97105937
LNL NWR	Replace sewer lines.	$30	97105938
LNL NWR	Replace headquarters office/residence exterior sewer lines.	$30	97105939
LNL NWR	Replace interior plumbing in residence #14 and temp quarters #16.	$30	97105940
LNL NWR	Enhance visitor services through development vistor contact station.	$90	98123853
LNL NWR	Replace large refuge recognition signs.	$38	98105942
LNL NWR	Develop moist-soil units to increase migratory bird support capability by constructing new levees.	$357	98123564
LNL WMD	Increase migratory bird resource support by developing levees on Adams WPA.	$146	98123571
LNL NWR	Outlet/drawdown for Long Lake - phase I [p/d].	$710	98110272
LNL NWR	Outlet/drawdown for Long Lake - phase II (c).	$2088	98110543
LNL WMD	Develop consistent, reliable access to Sisco-Fallgaeter WPA to aid management and public use.	$123	98123569
LNL NWR	Enhance public use facilities and promote visitation in conjunction with Lewis & Clark bicentennial.	$64	99123622

**LNL = Long Lake; SLD = Slade; FCL = Florence Lake*

Appendix P

Section 7 Consultation

INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Persons: Paul Van Ningen
Gregg Knutsen

Telephone Number: (701) 387-4397

Date: July 12, 2006

1. Region: 6

2. Service Activity (Program): Refuges & Wildlife, Long Lake NWR Complex

3. Pertinent Species and Habitat:

1. Federally Listed Species and/or their critical habitat within or downstream from action area:

   bald eagle, *Haliaeetus leucocephalus* (federally listed as threatened; delisting proposed)

   whooping crane, *Grus americana* (federally listed: endangered)

   piping plover, *Charadrius melodus*, (federally listed: threatened)

   least tern, *Sterna antillarum*, (federally listed: endangered)

   Critical Habitat: In 2002 the Service's Ecological Services Division designated eleven different tracts of land, of which at least portions are owned by the Service and administered by the complex, as Piping Plover Critical Habitat. These areas consist of Long Lake NWR, three Kidder County WPAs, and seven Burleigh County WPAs.

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

There are no known proposed species or critical habitat in Long Lake NWR Complex

C. Candidate species within or downstream from the action area :
Dakota skipper, *Hesperia dacotae*, candidate species within area of the complex

A. Include species/habitat occurrence on a map: see attachment

IV Geographic area or station name and action:

Station: Long Lake National Wildlife Refuge Complex
Action: Issuance & Implementation of Comprehensive Conservation Plan for Long Lake NWR Complex

V Location (map attached):

A. Ecoregion Number and Name: Long Lake NWR Complex is located within the Service's Region 6, Mountain-Prairie Region, and specifically in the Main Stem Missouri Ecosystem

F. Counties and State: Burleigh, Emmons, and Kidder counties, North Dakota

G. The Long Lake NWR Complex includes all sections within Burleigh, Emmons and Kidder Counties in North Dakota

A. Distance and direction to nearest town: The Long Lake NWR Complex headquarters is located in the southeastern area of Burleigh County, North Dakota, approximately 3 miles east of the town of Moffit, and approximately 40 miles southeast of the city of Bismarck.

B. Habitats and Occurrence of Federally listed and Candidate species:

Bald eagle: The bald eagle is a relatively common migrant during the spring and fall migrations. Observations of this species on the complex's refuges and WPAs can usually be tied to large concentrations of migrant waterfowl.

Whooping crane: Long Lake NWR is a key stopover site for this species that migrate through the Central Flyway to their breeding area in the Northwest Territories in the spring and their wintering area on Aransas NWR in the fall. Since 2000 there have been at least eight confirmed fall observations of whooping cranes using Long Lake NWR. Additionally, during recent years, this species has been documented on WPAs in the complex.

Piping plover: The piping plover breeds on the shoreline of the large, alkaline lakes that are common throughout the northeastern one-third of the complex.

Least tern: The endangered least tern has been documented on Long Lake NWR, but this is an anomaly, as the majority of this species' habitat use in North Dakota centers on the Missouri River.

Dakota skipper: This prairie-obligate species has not been documented in Burleigh, Emmons, or Kidder counties, but there is potential for it to occur on Service lands in these locations. Schiermeister WPA is the only tract of land in the complex with habitat characteristics that currently meet the requirements for this species.

VI Description of proposed action

The proposed action is: development and implementation of a Comprehensive Conservation Plan to guide the management of the Long Lake NWR Complex for the next 15 years. Implementation of this Plan comprises implementation of all actions and activities to achieve the stated goals contained in the Plan that will ultimately lead to the fulfillment of the purposes for which Congress established all the units comprising the Long Lake NWR Complex and assist in the fulfillment of the goals of the National Wildlife Refuge System.

VII Determination of effects:

A. Explanation of effects of the action on species and critical habitats in items III. A, B & C

Bald eagle: Implementing the CCP is not thought to have detrimental effects on this raptor. In fact, the continued preservation and management of complex lands for the benefit of wildlife species should enhance foraging sites for eagle use.

Whooping crane: Implementing the CCP is not thought to have detrimental effects on this migrant crane. In fact, the continued preservation and management of complex lands for the benefit of wildlife species should enhance loafing and resting sites for crane use.

Least tern: This species is a rare visitor to the complex. However, should this species wander through the complex, it is expected that implementation of the CCP would not have detrimental effects on habitats frequented by this species. Continued preservation and management of complex lands for the benefit of wildlife species should enhance sites for use by this tern species.

Piping plover: Implementing the CCP is not thought to have detrimental effects on this plover species. In fact, the continued preservation and management of complex lands, especially predator management and restrictions on certain public uses, for the benefit of this and other wildlife species should enhance nesting success as well as provide adequate loafing and resting sites for plover use.

There is already federally designated critical habitat on the action area (Long Lake NWR Complex) and the CCP does not find a need to propose designating further habitats as critical habitat within the complex at this time.

Dakota skipper: Implementing the CCP is not thought to have detrimental effects on this species. In fact, the continued preservation and management of these lands for the benefit of wildlife species (e.g., restoration of native vegetation) should enhance uplands for this insect.

C. Explanation of actions to be implemented to reduce adverse effects: None are necessary. All actions delineated in this CCP are thought to follow and be in accordance with provisions of protection and restoration plans for several species, as delineated by the Service and other Federal and state agencies. The complex staff is well acquainted with provisions that would be invoked and be put into effect to protect federally listed species and species of special concern from any public use or management action by refuge staff or visitors to the refuge.

VIII Effect determination and response requested: [* = optional]

A. Listed species/designated critical habitat:

Determination	Response Requested
no effect/no adverse modification (species: NONE)	_____*Concurrence
may affect, but is not likely to adversely affect species/adversely modify critical habitat (species: NONE)	_____ Concurrence
likely to jeopardize the continued existence of species and adversely modify or destroy their critical habitat (species: NONE)	_____ Formal Consultation

A. Proposed species/proposed critical habitat: none at this time

Determination	Response Requested
no effect on proposed species/no adverse modification of proposed critical habitat (Species: NONE)	_____*Concurrence
Is likely to jeopardize proposed species/ adversely modify proposed critical habitat (species: NONE)	_____ Conference

A. Candidate Species:

Determination	Response Requested
no effect is likely to jeopardize candidate species (species: NONE)	_____ *Concurrence

Paul C. Van Ningen

7/13/06

Paul Van Ningen
Project Leader
Long Lake National Wildlife Refuge Complex
Moffit, ND

Date

IX. Reviewing ESO Evaluation:

A. Concurrence ✓

Nonconcurrence _____

B. Formal Consultation required: ____

C. Conference required: ____

D. Informal conference required: ____

E. Remarks: ____

Bill Bicknell

JULY 28, 2006

Jeffery Towner
North Dakota Field Supervisor
U.S. Fish & Wildlife Service

Date

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