

Glossary of Terms

accessible—Pertaining to physical access to areas and activities for people of different abilities, especially those with physical impairments.

adaptive resource management—The rigorous application of management, research, and monitoring to gain information and experience necessary to assess and modify management activities; a process that uses feedback from research, monitoring, and evaluation of management actions to support or modify objectives and strategies at all planning levels; a process in which policy decisions are implemented within a framework of scientifically driven experiments to test predictions and assumptions inherent in management plan. Analysis of results helps managers determine whether current management should continue as is or whether it should be modified to achieve desired conditions.

Administration Act—National Wildlife Refuge System Administration Act of 1966.

alternative—A reasonable way to solve an identified problem or satisfy the stated need (40 CFR 1500.2); one of several different means of accomplishing refuge purposes and goals and contributing to the Refuge System mission (“Draft Service Manual” 602 FW 1.5).

amphibian—A class of cold-blooded vertebrates including frogs, toads or salamanders.

animal unit month (AUM)—Measure of the quantity of livestock forage. Equivalent to the amount of forage needed to support a 1,000-pound animal (or one cow/calf pair) for 1 month.

annual—A plant that flowers and dies within 1 year of germination.

ATV—All-terrain vehicle.

AUM—*See* animal unit month.

baseline—A set of critical observations, data, or information used for comparison or as a control.

biological control—The use of organisms or viruses to control invasive plants or other pests.

biological diversity, also biodiversity—The variety of life and its processes, including the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur (Service Manual 052 FW 1.12B). The National

Wildlife Refuge System’s focus is on indigenous species, biotic communities, and ecological processes.

biotic—Pertaining to life or living organisms; caused, produced by, or comprising living organisms.

canopy—A layer of foliage, generally the uppermost layer, in a vegetative stand; midlevel or understory vegetation in multilayered stands. Canopy closure (*also* canopy cover) is an estimate of the amount of overhead vegetative cover.

CCC—*See* Civilian Conservation Corps.

CCP—*See* comprehensive conservation plan.

CFR—*See* Code of Federal Regulations.

cfs—cubic feet per second.

Civilian Conservation Corps (CCC)—Peacetime civilian “army” established by President Franklin D. Roosevelt to perform conservation activities from 1933 to 1942. Activities included erosion control; firefighting; tree planting; habitat protection; stream improvement; and building of fire towers, roads, recreation facilities, and drainage systems.

Code of Federal Regulations (CFR)—The codification of the general and permanent rules published in the “Federal Register” by the executive departments and agencies of the federal government. Each volume of the CFR is updated once each calendar year.

compatibility determination—*See* compatible use.

compatible use—A wildlife-dependent recreational use or any other use of a refuge that, in the sound professional judgment of the director of the U.S. Fish and Wildlife Service, will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge (“Draft Service Manual” 603 FW 3.6). A compatibility determination supports the selection of compatible uses and identified stipulations or limits necessary to ensure compatibility.

comprehensive conservation plan (CCP)—A document that describes the desired future conditions of the refuge and provides long-range guidance and management direction for the refuge manager to accomplish the purposes of the refuge, contribute to the mission of the Refuge System, and to meet other relevant mandates (“Draft Service Manual” 602 FW 1.5).

concern—*See* issue.

cool-season grasses—Grasses that begin growth earlier in the season and often become dormant in the summer. These grasses will germinate at lower temperatures. Examples of cool-season grasses are western wheatgrass, needleandthread, and green needlegrass.

cover, also cover type, canopy cover—Present vegetation of an area.

cultural resources—The remains of sites, structures, or objects used by people in the past.

dense nesting cover (DNC)—A composition of grasses and forbs that allows for a dense stand of vegetation that protects nesting birds from the view of predators, usually consisting of one to two species of wheatgrass, alfalfa, and sweetclover.

depredation—Destruction or consumption of eggs, broods, or individual wildlife due to a predatory animal; damage inflicted on agricultural crops or ornamental plants by wildlife.

DNC—*See* dense nesting cover.

drawdown—The act of manipulating water levels in an impoundment to allow for the natural drying-out cycle of a wetland.

EA—*See* environmental assessment.

ecosystem—A dynamic and interrelating complex of plant and animal communities and their associated nonliving environment; a biological community, together with its environment, functioning as a unit. For administrative purposes, the Service has designated 53 ecosystems covering the United States and its possessions. These ecosystems generally correspond with watershed boundaries and their sizes and ecological complexity vary.

EIS—environmental impact statement.

emergent—A plant rooted in shallow water and having most of the vegetative growth above water, such as cattail and hardstem bulrush.

endangered species, federal—A plant or animal species listed under the Endangered Species Act of 1973, as amended, that is in danger of extinction throughout all or a significant portion of its range.

endangered species, state—A plant or animal species in danger of becoming extinct or extirpated in a particular state within the near future if factors contributing to its decline continue. Populations of these species are at critically low levels or their habitats have been degraded or depleted to a significant degree.

endemic species—Plants or animals that occur naturally in a certain region and whose distribution is relatively limited to a particular locality.

environmental assessment (EA)—A concise public document, prepared in compliance with the National Environmental Policy Act, that briefly discusses the purpose and need for an action and alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an environmental impact statement or finding of no significant impact (40 CFR 1508.9).

EPA—Environmental Protection Agency.

extinction—The complete disappearance of a species from the earth; no longer existing.

extirpation—The extinction of a population; complete eradication of a species within a specified area.

fauna—All the vertebrate and invertebrate animals of an area.

federal trust resource—A trust is something managed by one entity for another that holds the ownership. The Service holds in trust many natural resources for the people of the United States of America as a result of federal acts and treaties. Examples are species listed under the Endangered Species Act, migratory birds protected by international treaties, and native plant or wildlife species found on a national wildlife refuge.

federal trust species—All species where the federal government has primary jurisdiction including federally endangered or threatened species, migratory birds, anadromous fish, and certain marine mammals.

flora—All the plant species of an area.

FMP—fire management plan.

forb—A broad-leaved, herbaceous plant; a seed-producing annual, biennial, or perennial plant that does not develop persistent woody tissue but dies down at the end of the growing season.

fragmentation—The alteration of a large block of habitat that creates isolated patches of the original habitat that are interspersed with a variety of other habitat types; the process of reducing the size and connectivity of habitat patches, making movement of individuals or genetic information between parcels difficult or impossible.

“friends” group—Any formal organization whose mission is to support the goals and purposes of its associated refuge and the National Wildlife Refuge Association overall; “friends” organizations and cooperative and interpretive associations.

FWS—*See* U.S. Fish and Wildlife Service.

geographic information system (GIS)—A computer system capable of storing and manipulating spatial data; a set of computer hardware and software for analyzing and displaying spatially referenced features (such as points, lines, and polygons) with nongeographic attributes such as species and age.

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

grassland tract—A contiguous area of grassland without fragmentation.

GS—general schedule (pay-rate schedule for certain federal positions).

habitat—Suite of existing environmental conditions required by an organism for survival and reproduction; the place where an organism typically lives and grows.

habitat disturbance—Significant alteration of habitat structure or composition; may be natural (for example, wildland fire) or human-caused events (for example, timber harvest and disking).

habitat type, also vegetation type, cover type—A land classification system based on the concept of distinct plant associations.

HMP—habitat management plan.

impoundment—A body of water created by collection and confinement within a series of levees or dikes, creating separate management units although not always independent of one another.

Improvement Act—National Wildlife Refuge System Improvement Act of 1997.

indigenous—Originating or occurring naturally in a particular place.

integrated pest management (IPM)—Methods of managing undesirable species such as invasive plants; education, prevention, physical or mechanical methods of control, biological control, responsible chemical use, and cultural methods.

introduced species—A species present in an area due to intentional or unintentional escape, release, dissemination, or placement into an ecosystem as a result of human activity.

invasive plant, also noxious weed—A species that is nonnative to the ecosystem under consideration and whose introduction causes, or is likely to cause, economic or environmental harm or harm to human health.

IPM—*See* integrated pest management.

issue—Any unsettled matter that requires a management decision; for example, a Service initiative, opportunity, resource management problem, a threat to the resources of the unit, conflict in uses, public concern, or the presence of an undesirable resource condition (“Draft Service Manual” 602 FW 1.5).

management alternative—*See* alternative.

migration—Regular extensive, seasonal movements of birds between their breeding regions and their wintering regions; to pass usually periodically from one region or climate to another for feeding or breeding.

migratory birds—Birds that follow a seasonal movement from their breeding grounds to their wintering grounds. Waterfowl, shorebirds, raptors, and songbirds are all migratory birds.

mission—Succinct statement of purpose and/or reason for being.

mitigation—Measure designed to counteract an environmental impact or to make an impact less severe.

monitoring—The process of collecting information to track changes of selected parameters over time.

national wildlife refuge (NWR)—A designated area of land, water, or an interest in land or water within the National Wildlife Refuge System, but does not include coordination areas; a complete listing of all units of the Refuge System is in the current “Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service.”

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

National Wildlife Refuge System Improvement Act of 1997 (Improvement Act)—Sets the mission and the administrative policy for all refuges in the National Wildlife Refuge System; defines a unifying mission for the Refuge System; establishes the legitimacy and appropriateness of the six priority public uses (hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation); establishes a formal process for determining appropriateness and compatibility; establish the responsibilities of the Secretary of the Interior for managing and protecting the Refuge System; requires a comprehensive conservation plan

for each refuge by the year 2012. This Act amended portions of the Refuge Recreation Act and National Wildlife Refuge System Administration Act of 1966.

native species—A species that, other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

Neotropical migrant—A bird species that breeds north of the United States and Mexican border and winters primarily south of this border.

NEPA—National Environmental Policy Act.

nest success—The percentage of nests that successfully hatch one or more eggs of the total number of nests initiated in an area.

NOA—notice of availability.

nongovernmental organization—Any group that is not composed of federal, state, tribal, county, city, town, local, or other governmental entities.

noxious weed, also invasive plant—Any living stage (including seeds and reproductive parts) of a parasitic or other plant of a kind that is of foreign origin (new to or not widely prevalent in the U.S.) and can directly or indirectly injure crops, other useful plants, livestock, poultry, other interests of agriculture, including irrigation, navigation, fish and wildlife resources, or public health. According to the Federal Noxious Weed Act (PL 93-639), a noxious weed (such as invasive plant) is one that causes disease or has adverse effects on humans or the human environment and, therefore, is detrimental to the agriculture and commerce of the U.S. and to public health.

NRCS—Natural Resources Conservation Service of the U.S. Department of Agriculture.

NWR—*See* national wildlife refuge.

objective—An objective is a concise target statement of what will be achieved, how much will be achieved, when and where it will be achieved, and who is responsible for the work; derived from goals, objectives provide the basis for determining management strategies. Objectives should be attainable and time-specific and should be stated quantitatively to the extent possible. If objectives cannot be stated quantitatively, they may be stated qualitatively (“Draft Service Manual” 602 FW 1.5).

over-water species—nesting species such as diving ducks and many colonial-nesting birds that build nests within dense stands of water-dependent plants, primarily cattail, or that build floating nests of vegetation that rest on the water.

patch—An area distinct from that around it; an area distinguished from its surroundings by environmental conditions.

perennial—Lasting or active through the year or through many years; a plant species that has a life span of more than 2 years.

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

playa—A nearly level area at the bottom of an undrained desert basin, sometimes temporarily covered with water.

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

priority public use—One of six uses authorized by the National Wildlife Refuge System Improvement Act of 1997 to have priority if found to be compatible with a refuge’s purposes. This includes hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation.

proposed action—The alternative proposed to best achieve the purpose, vision, and goals of a refuge (contributes to the Refuge System mission, addresses the significant issues, and is consistent with principles of sound fish and wildlife management).

public—Individuals, organizations, and groups; officials of federal, state, and local government agencies; Native American tribes; and foreign nations. It may include anyone outside the core planning team. It includes those who may or may not have indicated an interest in Service issues and those who do or do not realize that Service decisions may affect them.

public involvement—A process that offers affected and interested individuals and organizations an opportunity to become informed about, and to express their opinions on, Service actions and policies. In the process, these views are studied thoroughly, and thoughtful consideration of public views is given in shaping decisions for refuge management.

purpose of the refuge—The purpose of a refuge is specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing authorization or expanding a refuge,

refuge unit, or refuge subunit (“Draft Service Manual” 602 FW 1.5).

raptor—A carnivorous bird such as a hawk, a falcon, or a vulture that feeds wholly or chiefly on meat taken by hunting or on carrion (dead carcasses).

Reclamation—Bureau of Reclamation of the U.S. Department of the Interior.

refuge operations needs system (RONS)—A national database that contains the unfunded operational needs of each refuge. Projects included are those required to implement approved plans and meet goals, objectives, and legal mandates.

refuge purpose—*See* purpose of the refuge.

Refuge System—*See* National Wildlife Refuge System.

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

resident species—A species inhabiting a given locality throughout the year; nonmigratory species.

rest—Free from biological, mechanical, or chemical manipulation, in reference to refuge lands.

restoration—Management emphasis designed to move ecosystems to desired conditions and processes, such as healthy upland habitats and aquatic systems.

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

RONS—*See* refuge operations needs system.

SAMMS—*See* Service Asset Maintenance Management System.

scoping—The process of obtaining information from the public for input into the planning process.

seasonally flooded—Surface water is present for extended periods in the growing season, but is absent by the end of the season in most years.

sediment—Material deposited by water, wind, and glaciers.

Service—*See* U.S. Fish and Wildlife Service.

Service Asset Maintenance Management System (SAMMS)—A national database that contains the unfunded maintenance needs of each refuge; projects include those required to maintain existing equipment and buildings, correct safety deficiencies for the implementation of approved plans, and meet goals, objectives, and legal mandates.

shelterbelt—Single to multiple rows of trees and shrubs planted around cropland or buildings to block or slow down the wind.

shorebird—Any of a suborder (*Charadrii*) of birds such as a plover or a snipe that frequent the seashore or mud flat areas.

spatial—Relating to, occupying, or having the character of space.

special status species—Plants or animals that have been identified through federal law, state law, or agency policy as requiring special protection of monitoring. Examples include federally listed endangered, threatened, proposed, or candidate species; state-listed endangered, threatened, candidate, or monitor species; Service’s species of management concern; species identified by the Partners in Flight program as being of extreme or moderately high conservation concern.

special use permit—A permit for special authorization from the refuge manager required for any refuge service, facility, privilege, or product of the soil provided at refuge expense and not usually available to the general public through authorizations in Title 50 CFR or other public regulations (“Refuge Manual” 5 RM 17.6).

species of concern—Those plant and animal species, while not falling under the definition of special status species, that are of management interest by virtue of being federal trust species such as migratory birds, important game species, or significant keystone species; species that have documented or apparent populations declines, small or restricted populations, or dependence on restricted or vulnerable habitats.

spoil piles—Spoil piles (also known as stock piles or storage piles) are excavated materials consisting of topsoil or subsoils that have been removed and temporarily stored during construction activity. Proper placement and stabilization of spoil piles helps reduce soil erosion.

step-down management plan—A plan that provides the details necessary to implement management strategies identified in the comprehensive conservation plan (“Draft Service Manual” 602 FW 1.5).

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

submergent—A vascular or nonvascular hydrophyte, either rooted or nonrooted, that lies entirely beneath the water surface, except for flowering parts in some species.

threatened species, federal—Species listed under the Endangered Species Act of 1973, as amended, that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

threatened species, state—A plant or animal species likely to become endangered in a particular state within the near future if factors contributing to population decline or habitat degradation or loss continue.

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

trust resource—*See* federal trust resource.

trust species—*See* federal trust species.

U.S. Fish and Wildlife Service (Service, USFWS, FWS)—The principal federal agency responsible for conserving, protecting, and enhancing fish and wildlife and their habitats for the continuing benefit of the American people. The Service manages the 93-million-acre National Wildlife Refuge System comprised of more than 530 national wildlife refuges and thousands of waterfowl production areas. It also operates 65 national fish hatcheries and 78 ecological service field stations; the agency enforces federal wildlife laws, manages migratory bird populations, restores national significant fisheries, conserves and restores wildlife habitat such as wetlands, administers the Endangered Species Act, and helps foreign governments with their conservation efforts. It also oversees the federal aid program that distributes millions of dollars in excise taxes on fishing and hunting equipment to state wildlife agencies.

U.S. Geological Survey (USGS)—A federal agency whose mission is to provide reliable scientific information to describe and understand the earth;

minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life.

vision statement—A concise statement of the desired future condition of the planning unit, based primarily on the Refuge System mission, specific refuge purposes, and other relevant mandates (“Draft Service Manual” 602 FW 1.5).

visual obstruction—Pertaining to the density of a plant community; the height of vegetation that blocks the view of predators and conspecifics to a nest.

visual obstruction reading (VOR)—A method of visually quantifying vegetative structure and composition.

wading birds—Birds having long legs that enable them to wade in shallow water including egrets, great blue herons, black-crowned night-herons, and bitterns.

waterfowl—A category of birds that includes ducks, geese, and swans.

watershed—The region draining into a river, a river system, or a body of water.

wetland management district (WMD)—Land that the Refuge System acquires with Federal Duck Stamp funds for restoration and management primarily as prairie wetland habitat critical to waterfowl and other wetland birds.

WG—wage grade schedule (pay-rate schedule for certain federal positions).

wildland fire—A free-burning fire requiring a suppression response; all fire other than prescribed fire that occurs on wildlands (Service Manual 621 FW 1.7).

wildlife-dependent recreational use—Use of a refuge involving hunting, fishing, wildlife observation, wildlife photography, environmental education, or interpretation. The National Wildlife Refuge System Improvement Act of 1997 specifies that these are the six priority general public uses of the Refuge System.

WMD—*See* wetland management district.

woodland—Open stands of trees with crowns not usually touching, generally forming 25–60 percent cover.

WUI—wildland–urban interface.

Finding of No Significant Impact

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

Three management alternatives for the Laramie Plains national wildlife refuges (Bamforth, Hutton Lake, and Mortenson Lake) were assessed as to their effectiveness in achieving the refuges' purposes and their impacts on the human environment.

- Alternative A, the “no-action” alternative, would continue current management.
- Alternative B would increase management activities on the refuges. Upland habitats would be evaluated and managed for the benefit of migratory bird species. Refuge staff would research the availability of additional water rights for the refuges. Monitoring and management of invasive species on the refuges would be increased. Wildlife-dependant recreation opportunities would be provided and enhanced at Hutton Lake NWR where compatible with refuge purposes. Efforts would be increased in the operations and maintenance of natural resources on the refuges and to maintain and develop partnerships that promote wildlife and habitat research and management.
- Alternative C would rely on partnerships to achieve refuge goals and objectives. Refuge management activities would be increased and enhanced through the use of partnerships. Refuge staff would strive to accomplish refuge work through partnerships with others. An emphasis on adaptive management, including monitoring the effects of habitat management practices and using research results to direct ongoing management, would be a priority.

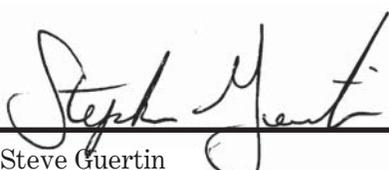
Based on this assessment and the comments received, I have selected alternative B as the preferred alternative for implementation. The preferred alternative was selected because it best meets the purposes for which the Laramie Plains national wildlife refuges were established, and it is preferable to the “no-action” alternative in light of physical, biological, economic, and social factors. The preferred alternative would continue to improve public access for wildlife-dependant recreation at Hutton Lake NWR (wildlife observation, wildlife photography, 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 implementation of the preferred alternative:

- The preferred alternative will not adversely impact endangered or threatened species or their habitat.
- The preferred alternative will not adversely impact archeological 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 of Wyoming has been notified and given the opportunity to review the comprehensive conservation plan and associated environmental assessment.

Steve Guertin
Regional Director, Region 6
U.S. Fish and Wildlife Service
Lakewood, CO

Appendix B

Key Legislation and Policies

This appendix briefly describes the guidance for the National Wildlife Refuge System and other policies and key legislation that guide the management of the Laramie Plains refuges.

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.

National Wildlife Refuge System Improvement Act of 1997.

Goals

- 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, interjurisdictional 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.
- 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, environmental education, and interpretation.

Guiding Principles

There are four guiding principles for management and general 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, tribes, organizations, industry, and the general 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 No. 7168 (1935)—Establishes Arrowwood Migratory Waterfowl 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 floodplains.

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

List of Preparers, Consultation, and Coordination

This document is the result of the extensive, collaborative, and enthusiastic efforts by the seven members of the Laramie Plains refuges planning team below. Many others contributed insight and support.

Planning Team

<i>Team Member</i>	<i>Position</i>	<i>Work Unit</i>
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Contributors

The Service would like to acknowledge the efforts of the following individuals and organizations toward the completion of this CCP. The diversity, talents, and knowledge they contributed dramatically improved the vision and completeness of this document.

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Appendix D

Public Involvement

Public scoping began June 16, 2006, with the publication of a notice of intent in the “Federal Register” to prepare comprehensive conservation plans and associated environmental documents for the three Laramie Plains refuges and announce opportunities for public input on refuge management.

In September 2006, a planning update was sent to each individual, organization, and government representative on the CCP mailing list (see list below). The planning update provided information about the history of the Refuge System and the CCP process, along with a mailing list consent form, comment form, and schedule of the planning process.

A public open house was held in Laramie, Wyoming, on May 25, 2006. The open house was announced in local newspapers and on radio and television stations. An overview of the CCP and NEPA processes was presented at the open house.

Attendees were encouraged to ask questions and offer comments. Approximately 31 people attended the open house. In addition to the scoping meeting, postage-paid comment forms were sent to everyone on the mailing list.

During the scoping effort, 55 comments were received from the open house, letters, and comment forms. Comments identified biological, social, and economic concerns regarding refuge management. This input was used in the development of management alternatives considered in the draft CCP and EA, plus the goals, objectives, and strategies described for the proposed action.

A second planning update was distributed in August 2007. This update provided information about the ongoing public involvement effort and encouraged the public to provide comments on the draft CCP and EA.

The draft CCP and EA was presented to the public August 1, 2007, for a 30-day comment period. An open house was held August 29, 2007, in Laramie. Six people attended the open house and 29 people provided written comments during the comment period on the draft plan.

PUBLIC COMMENTS

The following issues, concerns, and comments are a compilation and summary of those expressed during the August 2007 comment period for the draft CCP and EA. Comments were provided

by the public, federal and state agencies, local and county governments, private organizations, Service staff, and individuals concerned about the natural resources and public use of the Laramie Plains refuges. Comments were received orally at meetings, via email, fax, and in writing.

The issues, comments, and concerns are summarized, followed by responses from the Service. Where there were similar statements from more than one commentator, the statements were grouped into one summarized comment.

Comments about editorial and presentation corrections were addressed in the production of this final CCP and are not detailed here.

The refuge staff recognize and appreciate all input received from the public review period. To address this input, several clarifications and some changes are reflected in this final CCP.

Comments That Apply to All Laramie Plains Refuges

Comment 1: Support proposed alternative of enhanced refuge management (alternative B). Advocate the Service maintain and enhance the diversity and habitat of native wildlife on each refuge. Consider other uses of the refuges as secondary to maintaining habitat for native wildlife.

Response 1: The proposed action (alternative B) was selected to ensure the wildlife and their habitats are protected, enhanced, and restored, so that future generations of Americans can continue to enjoy wildlife. The Service expects that, when the habitat goals are met, the results will be positive impacts to vegetation and wildlife.

The Improvement Act states that uses of national wildlife refuge must be appropriate. The 1997 Act also stipulated 6 wildlife-dependent uses that may occur on a refuge if they are deemed compatible and do not interfere with the refuges purpose.

Comment 2: Monitor and manage grazing, recreation, and utility lines to ensure compatibility with the purpose and mission of the refuges.

Response 2: Congress sets guiding principles for the management of public lands by federal agencies. While some federal agencies have multiple use mandates from Congress, the Service has a

specific mandate to put wildlife first. The Service is mandated to accommodate all other refuge uses only when compatible with conservation of wildlife resources and their habitats.

Comment 3: Manage water resources (i.e., work with the existing water rights to maximize quantity of water to the refuges and investigate possibilities to transfer rights from other lands to enhance irrigation within refuge lands) to provide the best possible habitat conditions for wildlife in anticipation of dry periods or global climate change.

Response 3: We agree. Greater quantity and stability of the water levels would benefit waterfowl, shorebirds, wading birds, and other wetland-dependent wildlife. The CCP includes objectives and strategies for increased water management and investigation of opportunities to acquire additional water rights where feasible.

Comment 4: Support increased management and oversight for the three Laramie Plains refuges. The recommended addition of a full-time staff member with duties specific to the Laramie Plains refuges will be essential to accomplish the goals listed under alternative B as well as discourage violations within the refuge. A staff member assigned to the Laramie Plains refuges should be stationed locally.

Response 4: The CCP includes a refuge operations goal with specific objectives and strategies to increase staffing and funding levels for the refuges. The duty station would be identified at the time approval is received to hire an employee.

Comment 5: Invasive weed infestation is a potential threat to biological diversity and environmental integrity. Effective monitoring is essential for early detection rapid response (EDRR), which is recognized by weed-control experts as an effective weed-management program. Local organizations would like to be an active partner in weed control at the refuges.

Response 5: Invasive species control is being conducted in cooperation with Albany County Weed and Pest on an annual basis. The refuge will continue to partner with Albany County Weed and Pest for monitoring and control of invasive species.

Comment 6: Buffer zones should be maintained and expanded wherever possible due to the small size of the refuge units. Proximity to Laramie and urban growth pose threats to the refuge units. Septic systems from private homes and businesses should not be allowed to affect the refuge units.

Response 6: The CCP includes objectives and strategies to provide additional land protection for the refuges where appropriate.

Comment 7: Retain protection of endangered and threatened species as the Service's highest management priority. Species known to live in the Laramie Plains region include the Preble's meadow jumping mouse and the Wyoming toad.

Response 7: The Service is mandated to protect threatened and endangered species, and the protection of threatened and endangered species will continue to be a management priority on the Laramie Plains refuges. A Section 7 Biological Evaluation will be completed as part of the CCP process and included in the document as appendix M.

Comment 8: Pathfinder NWR should be considered part of the Laramie Plains wetland complex and included in the Laramie Plains CCP and EA.

Response 8: The Improvement Act mandates a CCP be prepared for each unit of the Refuge System. The Service elected to prepare a separate CCP for Pathfinder NWR for a number of reasons, including the difference in geographic area, urban centers (Laramie versus Casper), partner agencies (WGF, Reclamation, BLM), stakeholders, planning issues and habitat types (natural wetlands versus open water/reservoir habitats) of the refuges.

Comment 9: Baseline data must be acquired, analyzed, evaluated and compared to existing conditions so that a historic range of variability can be established for species inhabiting each refuge. A survey of the refuges for sensitive wildlife and plant species needs to be completed, and until accomplished should remain a top priority.

Response 9: We agree. The CCP includes a research and science goal with specific objectives and strategies to acquire baseline data for the refuges.

Comment 10: Federal funding is steadily decreasing and the ability to fund additional projects or an FTE is unlikely. Partnerships can increase funding and manpower. Recruit graduate students to assist in project implementation, research, and education. Use range specialists from partner agencies to design and perform range monitoring transects, which will assist the Service in making a scientifically based perspective on how livestock are utilizing the vegetation on all three refuges. Encourage the inclusion of livestock producers as part of a range-monitoring process to strengthen relationships and develop long-term goals for the vegetation in the upland areas. Partnerships with other agencies will allow the Service to match funds and in-kind contributions contingent upon partnerships with local agencies and organizations.

Response 10: We agree. The CCP includes a partnership goal with specific objectives and strategies to increase partnerships to benefit the refuges.

Comment 11: Encourage the Service to include livestock producers and range specialists in the decision-making process for stocking rates on the refuges. Results of the previous grazing year should be published prior to changes in AUMs. The Service should provide at least one year notice of changes in AUM rates.

Response 11: The Service works with grazing permittees on an annual basis to manage grazing for habitat improvement. Grazing must be compatible with refuge purposes and managed for the benefit of wildlife. Information regarding the grazing program is public information and may be obtained by contacting the refuge. The Service will continue to provide adequate notice of changes in AUM rates at the refuges.

Comment 12: Encourage Service to work with livestock and range specialists to investigate using sheep and goats for invasive species management. Biological control of weeds and nonnative vegetation benefits the refuge by reducing and/or eliminating the use of chemicals.

Response 12: The Service will work with partners to investigate using sheep and goats for invasive species management as time and staffing permit.

Comment 13: Stocking of nonnative wildlife and fishes should not occur on the refuges. Game species (e.g., game fish) have great potential for altering the natural ecological balance of ponds and lakes, potentially threatening native fishes, amphibians, and other sensitive species.

Response 13: Stocking of nonnative wildlife does not occur on the refuges.

Comment 14: The presence of feral cats and dogs on refuge lands should be monitored and a program should be established for their humane removal.

Response 14: When observed, feral cats and dogs will be controlled humanely.

Comment 15: Pesticide use should be held to a minimum. Pesticides are known to affect amphibian reproduction and offspring development. Insecticides, rodenticides, fertilizers, and other widely applied contaminants should be prohibited on refuge lands, and their use on adjacent private lands should be analyzed to assess possible direct or cumulative impacts to species on the Laramie Plains refuges.

Response 15: Integrated pest management guidelines are followed for invasive species control. Chemical, mechanical and biological controls are utilized as appropriate on refuge lands.

Comment 16: Designate Laramie Plains refuge lands as exclusion zones for oil and gas development.

Response 16: The Service does not own the mineral rights for the refuges and may not preclude oil and gas development on the refuges. The Service can minimize surface impacts when mineral rights are privately owned.

Comment 17: Vehicle use on refuge lands should be confined to designated roads, and new road construction should not be permitted. Gravel roads contribute to siltation in streams and downstream wetlands and lakes.

Response 17: Bamforth NWR and Mortenson Lake NWR are closed to public use. A visitor services management plan for Hutton Lake NWR will be developed with implementation of the CCP that will address circulation and roads. Visitor facilities will be accessible and designed to minimize impacts to wildlife.

Comment 18: Visitor facilities should be designed to minimize physical and visual impacts to the natural setting and to maintain or improve the health and function of the refuge's ecosystem. Concentrate visitor use to existing hardened sites.

Accessible facilities should be provided on at least one of the refuges.

Response 18: See response to comment #17.

Comment 19: Manage hunting to maximize safety of hunters, nearby landowners, and refuge visitors.

Response 19: All three of the Laramie Plains refuges are closed to hunting and shooting.

Comment 20: Hunting should be banned on the refuges because it is a violent act that promotes additional violence.

Response 20: See response to comment #19.

Comment 21: Wildlife watching outspends all other uses and is the prime reason for refuges and needs first priority.

Response 21: Wildlife observation is one of the six priority wildlife-dependent recreational uses, along with hunting, fishing, wildlife photography, environmental education, and interpretation.

Comments That Apply to Bamforth NWR

Comment 22: We agree that research is needed at Bamforth NWR, and support the recommendation to conduct research and partner with others to

obtain a good understanding of the role and value of Bamforth NWR in the Laramie Basin wetland ecosystem. Given the value of wetlands generally, the refuge may possess significant wildlife values.

Response 22: The CCP includes a research goal with specific objectives and strategies to obtain baseline data for Bamforth NWR.

Comment 23: The CCP lacks reference to studies on Bamforth NWR documenting the long-term importance of the refuge to colonial nesting birds (e.g., studies by Diem, Pugsek, Nations, and others). Believe that habitats at the refuge are of significant importance to justify retention without further investigation.

Response 23: With implementation of the CCP and additional staff and partnerships more information will be gathered and evaluated to guide future management decisions at Bamforth NWR.

Comment 24: Bamforth NWR should not be eliminated from the Refuge System. Oppose any future effort to sell or otherwise relinquish Bamforth NWR.

Response 24: Divestiture of the refuge was considered but eliminated as an option in the CCP planning process. Bamforth NWR will be retained in the Refuge System for the next 15 years, and biological information will be obtained to guide future management decisions. A detailed and objective account can be found in appendix D of the draft CCP.

Comment 25: Bamforth NWR supports some of the largest white pelican and California gull populations in this region, as well as large shorebird populations.

Response 25: While Bamforth Lake supports white pelican and California gull populations, the island that provides nesting habitat is located outside the refuge boundary. The Service has no jurisdiction or management capability for the island.

Comments That Apply to Hutton Lake NWR

Comment 26: The effects of low-priority water rights at Hutton Lake NWR have been observed in recent years when the lakes were dry and there was virtually no habitat for nesting or migrating birds. The Service should strengthen the language on seeking to obtain or transfer additional water rights for the refuges as well as better claim current rights.

Response 26: See response to comment #3.

Comment 27: Include provisions for prohibiting motorized vehicle incursions into sensitive habitats (within 3 miles of a sage-grouse lek or 1 mile of a raptor nest during the breeding/nesting season, or within crucial big-game winter range during its season of use). Temporary vehicle closures provide undisturbed habitat for wildlife.

Response 27: A step-down visitor services management plan will be developed for the refuge that will address permanent and/or temporary road closures to benefit migratory birds and other wildlife.

Comment 28: An increase in motor vehicle use has been observed in and around Hutton Lake NWR over the last 5 years. A road has been created along the boundary fence-line to the south and east.

Citizens have observed the shooting of prairie dogs on the refuge from the boundary, and an ATV on the refuge attempting to drive antelope outside to waiting hunters.

A more developed infrastructure for wildlife observation and education, with more public presence for those purposes, and a greater law enforcement presence would be helpful in reducing illegal use of the refuge.

Response 28: See response to comment #27.

Comment 29: Seeking additional protective tenure for the land west of Hutton Lake NWR, as stated in the proposed alternative, would increase the value of this refuge for waterfowl and waterbirds. Have observed 50 black-crowned night-herons using the wetlands directly west of the refuge.

Response 29: We agree. The CCP includes objectives and strategies to seek protective land-tenure status for the land west of Hutton Lake NWR.

Comment 30: The white-tailed prairie dog colony on the refuge should be allowed to thrive and expand. Rodenticides used to poison white-tailed prairie dogs should be prohibited on the refuge. Prairie dogs are a well-known keystone species. The burrowing owl, black-footed ferret, swift fox, mountain plover, ferruginous hawk, and other species are negatively affected by poisons sequestered in poisoned prairie dog carcasses.

Response 30: Prairie dog control does not occur on the refuge. The colony will be allowed to expand on refuge lands.

Comment 31: Oppose alternative B (proposed action) due to discontinuation of grazing at Hutton Lake NWR. Removal of special use permit will weaken

the Service's ability to manage vegetation without mechanical or chemical methods and weaken relationships with neighboring ranchers.

Response 31: The Service does not intend to eliminate grazing on the refuge. The text in the final CCP was revised to clarify the Service's intention to evaluate the grazing program and manage grazing on the refuge to support refuge purposes, goals, and objectives.

Comments That Apply to Mortenson Lake NWR

Comment 32: Provide maximum protection to the Wyoming toad. Support introduction of the toad to other refuges if recommended by the recovery team.

Manage upland grazing around Mortenson Lake in a manner fully compatible with Wyoming toad protection efforts. Use fencing as a means to protect Mortenson Lake shore from grazing impacts. Limit public use to give the toad maximum chance of recovery.

Response 32: All management actions on the refuge are evaluated and conducted with concurrence of the Wyoming Toad Recovery Team. As future research and knowledge of Wyoming toad biology improves, management will continue to benefit the Wyoming toad. The refuge will remain closed to public use until the population recovery goals for the Wyoming toad have been met.

Comment 33: Consider opening the refuge as a Hunter Management Area for pronghorn. Concerned about the effects of wild and domestic ungulate herbivory on habitat quality. Controlled hunting may address habitat issues on the refuge and contains numerous mechanisms for regulating harvest while avoiding Wyoming toad habitat. Many private lands surrounding the refuge receive light harvest pressure.

Response 33: The refuge is mandated to manage for endangered species, specifically the Wyoming toad. Hunting is a secondary use. Improving and increasing the acres of habitat for the Wyoming toad will take priority.

Comment 34: If during the time frame of this plan (2007–22) other sites have established viable Wyoming toad populations, recommend revisiting the possibility of allowing some form of public access for fishing.

Response 34: The refuge will remain closed to public use until the population recovery goals for the Wyoming toad have been met.

Federal Officials

U.S. Representative Barbara Cubin, Washington DC
Rep. Cubin's Area Director, Cheyenne, WY
U.S. Senator Craig Thomas, Washington DC
Sen. Thomas's Area Director, Casper, WY
U.S. Senator Michael Enzi, Washington DC
Sen. Enzi's Area Director, Cheyenne, WY

Federal Agencies

Bureau of Land Management; Cheyenne, WY;
Rawlins, WY
National Park Service, Omaha, NE
USFWS, Ecological Services, Cheyenne, WY
USFWS, National Wildlife Refuge System;
Albuquerque, NM; Anchorage, AK; Arlington,
VA; Atlanta, GA; Fort Snelling, MN; Hadley, MA;
Portland, OR; Rawlins, WY; Sacramento, CA;
Shepherdstown, WV; Washington DC
USGS—Fort Collins Science Center, Ft. Collins, CO

Tribal Officials

Arapaho Business Committee, Fort Washakie, WY
Crow Tribal Council, Crow Agency, MT
Northern Cheyenne Tribal Council, Lame Deer, MT
Oglala Sioux Tribal Council, Pine Ridge, SD
Shoshone Business Council, Fort Washakie, WY

State Officials

Governor Dave Freudenthal, Cheyenne
Representative Kermit Brown, Laramie
Representative Kurt S. Bucholz, Saratoga
Representative Jim Slater, Laramie
Representative Jane Warren, Laramie
Representative Kevin White, Laramie
Senator Mike Massie, Laramie
Senator Phil Nicholas, Laramie

State Agencies

Wyoming Department of Agriculture, Cheyenne
Wyoming Game and Fish Department; Casper;
Lander; Laramie

Wyoming Game Fish Commission, Cheyenne

Wyoming Office of State Lands and Investments,
Cheyenne

Wyoming State Historic Preservation Office,
Cheyenne

Local Government

Albany County Commissioners, Laramie

Laramie Rivers Conservation District, Safe Harbor
Liaison, Laramie

Mayor, Laramie

Organizations

American Bird Conservancy, Plains, VA

American Rivers, Washington DC

Audubon Wyoming, Casper, WY; Laramie, WY; Tie
Siding, WY

Biodiversity Conservation Alliance, Laramie, WY

Defenders of Wildlife, Washington DC

Ducks Unlimited, Memphis, TN

Izaak Walton League, Gaithersburg, MD

League of Women Voters of Wyoming, Laramie, WY

Murie Audubon Society, Casper, WY

National Audubon Society; Washington DC; New
York, NY

National Trappers Association, New Martinsville,
WV

National Wildlife Federation, Reston, VA

National Wildlife Refuge Association, Washington DC

Sierra Club; San Francisco, CA; Sheridan, WY

The Nature Conservancy, Boulder, CO

The U.S. Humane Society, Washington, DC

The Wilderness Society, Washington DC

Union Pacific Railroad, Omaha, NE

Wildlife Management Institute; Fort Collins, CO;
Corvallis, OR; Washington DC

Wyoming Natural diversity Database, Laramie, WY

Wyoming Outdoor Council, Logan, UT

State Universities, Colleges, and Schools

University of Wyoming, Real Estate Operations,
Laramie

University of Wyoming, School of Environment and
Natural Resources, Laramie

Local Media

Casper Star Tribune, Casper

Daily Boomerang, Laramie

KCGY, Laramie

KIMX, Laramie

KISS, Casper

KKTY, Douglas

Rawlins Daily Times, Rawlins

Wyoming Public Radio, Laramie

Individuals

71 individuals

Appendix E

Fire Management Program

The Service has management and administrative responsibility, including fire management, for the Laramie Plains refuges, which covers approximately 4,860 acres in south-central Wyoming.

THE ROLE OF FIRE

In ecosystems of the Great Plains, vegetation has evolved under periodic disturbance and defoliation from grazing, fire, drought, and floods. This periodic disturbance is what kept the ecosystem diverse and healthy while maintaining significant biodiversity for thousands of years.

Historically, natural fire and Native American ignitions have played an important disturbance role in many ecosystems by removing fuel accumulations, decreasing the impacts of insects and diseases, stimulating regeneration, cycling nutrients, and providing a diversity of habitats for plants and wildlife.

When fire and/or grazing are excluded from prairie landscapes, fuel loadings increase due to a build-up of thatch and invasion of woody vegetation. This increase in fuel loadings leads to an increase in a fire's resistance to control, which threatens firefighter and public safety as well as federal and private facilities.

However, when properly utilized, fire can

- reduce hazardous fuels build-up in both wildland-urban interface (WUI) and non-WUI areas;
- improve wildlife habitats by reducing density of vegetation and/or changing plant species composition;
- sustain and/or increase biological diversity;
- improve woodlands and shrub lands by reducing plant density;
- reduce susceptibility of plants to insect and disease outbreaks;
- improve quality and quantity of livestock forage;
- improve the quantity of water available for municipalities and activities dependent on wildlands for their water supply.

WILDLAND FIRE MANAGEMENT POLICY AND GUIDANCE

In 2001, an update of the 1995 "Federal Fire Policy" was completed and approved by the Secretaries of Interior and Agriculture. The 2001 "Federal Wildland Fire Management Policy" directs federal agencies to achieve a balance between fire suppression to protect life, property, and resources and fire use to regulate fuels and maintain healthy ecosystems. In addition, it directs agencies to use the appropriate management response for all wildland fire regardless of the ignition source. This policy provides eight guiding principles that are fundamental to the success of the fire management program:

- Firefighter and public safety is the first priority in every fire management activity.
- The role of wildland fires as an ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans (FMPs), programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based on values to be protected, costs, and land and resource management objectives.
- FMPs and activities are based on the best available science.
- FMPs and activities incorporate public health and environmental quality consideration.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.
- Standardization of policies and procedures among federal agencies is an ongoing objective.

The fire management considerations, guidance, and direction should be addressed in the land use resource plans (for example, the CCP). FMPs are

step-down processes from the land use plans and habitat plans, with more detail on fire suppression, fire use, and fire management activities.

MANAGEMENT DIRECTION

The Laramie Plains refuges will protect life, property, and other resources from wildland fire by safely suppressing all wildfires. Prescribed fire as well as manual and mechanical fuel treatments will be used in an ecosystem context to protect both federal and private property and for habitat management purposes. Fuel reduction activities will be applied in collaboration with federal, state, private, and NGO partners. In addition, fuel treatments will be prioritized based on the guidance for prioritization established in the goals and strategies outlined in the U.S. Fish and Wildlife Service's National Wildlife Refuge System Wildland Fire Management Program Strategic Plan 2003–2010 and the R6 Refuges Regional Priorities FY07–11. For WUI treatments, areas with community wildfire protection plans and communities at risk will be the primary focus.

All aspects of the fire management program will be conducted in a manner consistent with applicable laws, policies, and regulations. The Laramie Plains refuge stations will maintain an FMP to accomplish the fire management goals described below. Prescribed fire, manual, and mechanical fuel treatments will be applied in a scientific way under selected weather and environmental conditions.

Fire Management Goals

The goals and strategies of the U.S. Fish and Wildlife Service's National Wildlife Refuge System Wildland Fire Management Program Strategic Plan are consistent with Department and Service policies, National Fire Plan direction, President Bush's Healthy Forest Initiative, the 10-Year Comprehensive Strategy and Implementation Plan, National Wildfire Coordinating Group (NWCG) Guidelines, initiatives of the Wildland Fire Leadership Council, and Interagency Standards for Fire and Aviation Operations.

The R6 Refuges Regional Priorities FY07–11 are consistent with the refuges' vision statement for region 6: "to maintain and improve the biological integrity of the region, ensure the ecological condition of the region's public and private lands are better understood, and endorse sustainable use of habitats that support native wildlife and people's livelihoods." The fire management goals for the Laramie Plains refuges are to use prescribed fire,

manual, and mechanical treatments to: (1) reduce the threat to life and property through hazardous fuels reduction treatments, (2) meet the habitat goals and objectives identified in this CCP, and (3) reintroduce fire to ecosystems that evolved with fire as a disturbance factor.

Fire Management Objective

The objective of the fire management program is to utilize prescribed fire, manual, and mechanical treatment methods to treat between 10 and 500 acres over the life of the plan.

Strategies

Strategies and tactics that consider public and firefighter safety as well as resource values at risk will be used. Wildland fire suppression, prescribed fire methods, manual and mechanical means, timing, and monitoring are described in more detail within the step-down FMP(s).

All management actions would use prescribed fire, manual and/or mechanical means to reduce hazardous fuels, restore and maintain desired habitat conditions, control nonnative vegetation, and control the spread of woody vegetation within the diverse ecosystem habitats. The fuels treatment program will be outlined in the FMP for the refuges. Site-specific prescribed fire burn plans will be developed following the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (2006) template.

Prescribed fire temporarily reduces air quality by reducing visibility and releasing components through combustion. The refuges will meet the Clean Air Act emission standards by adhering to the Wyoming State Implementation Plan requirements during all prescribed fire activities.

FIRE MANAGEMENT ORGANIZATION, CONTACTS, AND COOPERATION

Qualified fire management technical oversight for the refuges will be established by region 6 of the Service, using the fire management district approach. Under this approach, fire management staff will be determined by established modeling systems based on the fire management workload of a group of refuges, and possibly that of interagency partners. The fire management workload consists of historical wildland fire suppression activities as well as historical and planned fuels treatments.

Depending on budgets, fire management staffing and support equipment may be located at the administrative station or at other refuges within the district and shared between all units. Fire management activities will be conducted in a coordinated and collaborative manner with federal and nonfederal partners.

As part of this CCP, new FMP(s) will be developed for the Laramie Plains refuges. The FMP(s) may be done as: (1) an FMP that covers each individual refuge, (2) an FMP that covers the refuges within this CCP, (3) an FMP that covers the administrative district, or (4) an interagency FMP.

Appendix F

List of Plant Species

The following plant species that occur at the Laramie Plains refuges are listed in alphabetic order of their scientific names. Species may be found on one or more of the three refuges.

Scientific Name	Common Name
<i>Achillea millefolium</i>	Common yarrow
<i>Achnatherum hymenoides</i>	Indian ricegrass
<i>Agoseris glauca</i>	Mountain dandelion
<i>Agropyron cristatum</i>	Crested wheatgrass
<i>Agrostis stolonifera</i>	Creeping bentgrass
<i>Alopecurus arundinaceus</i>	Creeping meadow foxtail
<i>Antennaria microphylla</i>	Littleleaf pussytoes
<i>Argentina anserina</i>	Silverweed cinquefoil
<i>Artemisia frigida</i>	Fringed sage
<i>Artemisia tridentata wyomingensis</i>	Wyoming big sagebrush
<i>Artemisia tridentata vaseyana</i>	Mountain big sagebrush
<i>Aster ascendens</i>	Western aster
<i>Aster falcatum</i>	White prairie aster
<i>Astragalus agrestis</i>	Field milkvetch
<i>Astragalus bodinii</i>	Bodin's milkvetch
<i>Astragalus</i> spp.	Milkvetch
<i>Atriplex gardneri</i>	Gardner's saltbush
<i>Bouteloua gracilis</i>	Blue grama
<i>Brassicaceae</i> spp.	Mustard
<i>Bromus tectorum</i>	Cheatgrass
<i>Calamagrostis stricta</i>	Reedgrass
<i>Camelina microcarpa</i>	Littlepod false flax
<i>Carex nebrascensis</i>	Nebraska sedge
<i>Carex praegracilis</i>	Clustered field sedge
<i>Chenopodium rubrum</i>	Red goosefoot
<i>Chrysothamnus</i> spp.	Rabbitbrush
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium canescens</i>	Prairie thistle
<i>Cleome serrulata</i>	Rocky mountain bee plant
<i>Conyza canadensis</i>	Canadian horseweed
<i>Crepis runcinata</i>	Hawk's beard
<i>Cryptantha</i> spp.	Cryptantha
<i>Cryptantha thyrsoiflora</i>	Calcareous cryptantha
<i>Delphinium geyeri</i>	Geyer's larkspur
<i>Deschampsia caespitosa</i>	Tufted hairgrass
<i>Descurainia sophia</i>	Flixweed

Scientific Name	Common Name
<i>Distichlis spicata</i>	Saltgrass
<i>Elymus triticoides</i>	Alkali wildrye
<i>Eleocharis fallax</i>	Creeping spikerush
<i>Eleocharis</i> spp.	Spikerush
<i>Elymus lanceolatus</i>	Thickspike wheatgrass
<i>Elymus</i> spp.	Wheatgrass
<i>Elymus trachycaulus</i>	Slender wheatgrass
<i>Epilobium ciliatum</i>	Fringed willowherb
<i>Equisetum laevigatum</i>	Smooth horsetail
<i>Erigeron</i> spp.	Fleabane
<i>Eriogonum brevicaulis</i>	Shortstem buckwheat
<i>Eriogonum flavum</i>	Alpine golden buckwheat
<i>Eriogonum ovalifolium</i>	Cushion buckwheat
<i>Eriogonum</i> spp.	Buckwheat
<i>Erysimum capitatum</i>	Sanddune wallflower
<i>Erysimum</i> spp.	Wallflower
<i>Festuca</i> spp.	Fescue
<i>Gentianella amarella</i>	Autumn dwarf gentian
<i>Glaux maritima</i>	Sea milkwort
<i>Grindelia squarrosa</i>	Curlycup gumweed
<i>Gutierrezia sarothrae</i>	Broom snakeweed
<i>Hesperostipa comata</i>	Needleandthread
<i>Heterotheca subaxillaris</i>	Camphorweed
<i>Hippuris vulgaris</i>	Common mare's-tail
<i>Hordeum jubatum</i>	Foxtail barley
<i>Iris missouriensis</i>	Rocky Mountain iris
<i>Juncus balticus</i>	Baltic rush
<i>Juncus bufonius</i>	Toad rush
<i>Juncus compressus</i>	Roundfruit rush
<i>Juncus longistylis</i>	Longstyle rush
<i>Juncus nevadensis</i>	Sierra rush
<i>Juncus torreyi</i>	Torrey's rush
<i>Koeleria macrantha</i>	Prairie Junegrass
<i>Krascheninnikovia lanata</i>	Winterfat
<i>Lappula</i> spp.	Stickseed
<i>Lepidium densiflorum</i>	Common pepperweed
<i>Lepidium perfoliatum</i>	Clasping pepperweed
<i>Lepidium</i> spp.	Pepperweed
<i>Linanthus pungens</i>	Granite prickly phlox
<i>Lesquerella ludoviciana</i>	Foothill bladderpod

Scientific Name	Common Name
<i>Lesquerella</i> spp.	Bladderpod
<i>Lygodesmia juncea</i>	Rush skeletonplant
<i>Melilotus officinalis</i>	Yellow sweetclover
<i>Melilotus</i> spp.	Sweetclover
<i>Mentha arvensis</i>	Wild mint
<i>Mertensia</i> spp.	Bluebells
<i>Mimulus glabratus</i>	Roundleaf monkeyflower
<i>Mirabilis linearis</i>	Narrowleaf four o'clock
<i>Muhlenbergia filiformis</i>	Pullup muhly
<i>Oenothera coronopifolia</i>	Crownleaf evening primrose
<i>Opuntia</i> spp.	Pricklypear
<i>Orobanche fasciculata</i>	Clustered broomrape
<i>Orobanche ludoviciana</i>	Louisiana broomrape
<i>Oxytropis deflexa</i>	Nodding locoweed
<i>Oxytropis</i> spp.	Locoweed
<i>Parnassia palustris</i>	Marsh grass of Parnassus
<i>Paronychia sessiliflora</i>	Creeping nailwort
<i>Pascopyrum smithii</i>	Western wheatgrass
<i>Phleum pratense</i>	Timothy
<i>Phlox hoodii</i>	Hood's phlox
<i>Physaria</i> spp.	Twinspod
<i>Plantago eriopoda</i>	Redwool plantain
<i>Poa juncifolia</i>	Sandberg bluegrass
<i>Poa pratensis</i>	Kentucky bluegrass
<i>Poa</i> spp.	Bluegrass
<i>Poa trivialis</i>	Rough bluegrass
<i>Polygonum aviculare</i>	Prostrate knotweed
<i>Polygonum ramosissimum</i>	Bushy knotweed
<i>Potentilla bipinnatifida</i>	Tansy cinquefoil
<i>Potentilla</i> spp.	Cinquefoil
<i>Primula incana</i>	Silvery primrose
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass
<i>Puccinellia nuttalliana</i>	Nuttall's alkaligrass
<i>Pyrocoma lanceolata</i>	Lanceleaf goldenweed
<i>Ranunculus cymbalaria</i>	Alkali buttercup
<i>Rumex crispus</i>	Curly dock
<i>Rumex maritimus</i>	Golden dock
<i>Salix plantifolia</i>	Planeleaf willow
<i>Salsola kali</i>	Russian thistle

Scientific Name	Common Name
<i>Salsola collina</i>	Slender Russian thistle
<i>Salsola</i> spp.	Russian thistle
<i>Sarcobatus vermiculatus</i>	Greasewood
<i>Scirpus americanus</i>	American bulrush
<i>Scirpus nevadensis</i>	Nevada bulrush
<i>Schoenoplectus tabernaemontani</i>	Softstem bulrush
<i>Scutellaria galericulata</i>	Marsh skullcap
<i>Senecio hydrophiloides</i>	Tall groundsel
<i>Sisyrinchium implicatum</i>	Blueeyed grass
<i>Sisyrinchium pallidum</i>	Pale blue-eyed grass
<i>Sium suave</i>	Hemlock waterparsnip
<i>Sonchus palustris</i>	Marsh sowthistle
<i>Sparganium</i> spp.	Bur-reed
<i>Sphaeralcea coccinea</i>	Scarlet globemallow
<i>Sporobolus cryptandrus</i>	Sand dropseed
<i>Stuckenia filiformis</i>	Fineleaf pondweed
<i>Stuckenia pectinata</i>	Sago pondweed
<i>Tetradymia canescens</i>	Spineless horsebrush
<i>Townsendia hookeri</i>	Hooker's townsendia
<i>Tragopogon dubius</i>	Yellow salsify
<i>Trifolium hybridum</i>	Alsike clover
<i>Trifolium repens</i>	White clover
<i>Triglochin maritima</i>	Seaside arrowgrass
<i>Triglochin palustris</i>	Marsh arrowgrass
<i>Valeriana edulis</i>	Tobacco root

Appendix G

List of Potentially Occurring Bird Species

The following bird species potentially occur at the Laramie Plains refuges. Species may be found on one or more of the three refuges.

Scientific Name	Common Name
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Accipiter gentilis</i>	Northern goshawk*
<i>Accipiter striatus</i>	Sharp-shinned hawk*
<i>Actitis macularia</i>	Spotted sandpiper
<i>Aechmophorus clarkii</i>	Clark's grebe
<i>Aechmophorus occidentalis</i>	Western grebe
<i>Agelaius phoeniceus</i>	Red-winged blackbird
<i>Aix sponsa</i>	Wood duck
<i>Anas acuta</i>	Northern pintail
<i>Anas americana</i>	American wigeon
<i>Anas carolinensis</i>	Green-winged teal
<i>Anas clypeata</i>	Northern shoveler
<i>Anas cyanoptera</i>	Cinnamon teal
<i>Anas discors</i>	Blue-winged teal
<i>Anas platyrhynchos</i>	Mallard
<i>Anas strepera</i>	Gadwall
<i>Anthus rubescens</i>	American pipit
<i>Aquila chrysaetos</i>	Golden eagle
<i>Ardea herodias</i>	Great blue heron
<i>Asio flammeus</i>	Short-eared owl*
<i>Athene cunicularia</i>	Burrowing owl*
<i>Aythya affinis</i>	Lesser scaup
<i>Aythya americana</i>	Redhead
<i>Aythya collaris</i>	Ring-necked duck
<i>Aythya marila</i>	Greater scaup*
<i>Aythya valisineria</i>	Canvasback
<i>Bombycilla cedrorum</i>	Cedar waxwing*
<i>Bombycilla garrulus</i>	Bohemian waxwing*
<i>Botaurus lentiginosus</i>	American bittern
<i>Branta canadensis</i>	Canada goose
<i>Bubo virginianus</i>	Great horned owl*
<i>Bubulcus ibis</i>	Cattle egret
<i>Bucephala albeola</i>	Bufflehead
<i>Bucephala clangula</i>	Common goldeneye
<i>Bucephala islandica</i>	Barrow's goldeneye*

Scientific Name	Common Name
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Buteo lagopus</i>	Rough-legged hawk
<i>Buteo regalis</i>	Ferruginous hawk
<i>Buteo swainsoni</i>	Swainson's hawk
<i>Butorides virescens</i>	Green heron*
<i>Calamospiza melanocorys</i>	Lark bunting
<i>Calcarius ornatus</i>	Chestnut-collared longspur
<i>Calcarius sandwichensis</i>	McGown's longspur
<i>Calidris alba</i>	Sanderling*
<i>Carduelis pinus</i>	Pine siskin
<i>Carduelis tristis</i>	American goldfinch
<i>Cathartes aura</i>	Turkey vulture
<i>Catharus guttatus</i>	Hermit thrush*
<i>Charadrius montanus</i>	Mountain plover*
<i>Charadrius vociferus</i>	Killdeer
<i>Chen caerulescens</i>	Snow goose*
<i>Chen rossii</i>	Ross's goose*
<i>Chlidonias niger</i>	Black tern
<i>Chondestes grammacus</i>	Lark sparrow
<i>Chordeiles minor</i>	Common nighthawk
<i>Circus cyaneus</i>	Northern harrier
<i>Cistothorus palustris</i>	Marsh wren
<i>Coccothraustes vespertinus</i>	Evening grosbeak*
<i>Colaptes auratus</i>	Northern flicker
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	Common raven
<i>Cygnus columbianus</i>	Tundra swan
<i>Dendroica coronata</i>	Yellow rumped warbler
<i>Dendroica nigrescens</i>	Black-throated gray warbler*
<i>Dendroica petechia</i>	Yellow warbler
<i>Egretta thula</i>	Snowy egret
<i>Eremophila alpestris</i>	Horned lark
<i>Erolia alpina</i>	Dunlin*
<i>Erolia bairdii</i>	Baird's sandpiper
<i>Erolia mauri</i>	Western sandpiper
<i>Erolia minutilla</i>	Least sandpiper
<i>Euphagus carolinus</i>	Rusty blackbird*
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Falco mexicanus</i>	Prairie falcon
<i>Falco peregrinus</i>	Peregrine falcon

Scientific Name	Common Name
<i>Fulica americana</i>	American coot
<i>Gallinago delicata</i>	Wilson's snipe
<i>Gavia immer</i>	Common loon
<i>Geothlypis trichas</i>	Common yellowthroat
<i>Grus canadensis tabida</i>	Sandhill crane
<i>Haliaeetus leucocephalus</i>	Bald eagle
<i>Himantopus mexicanus</i>	Black-necked stilt*
<i>Hirundo rustica</i>	Barn swallow
<i>Hydroprogne caspia</i>	Caspian tern*
<i>Larus argentatus</i>	Herring gull*
<i>Larus californicus</i>	California gull
<i>Larus delawarensis</i>	Ring-billed gull*
<i>Larus philadelphia</i>	Bonaparte's gull
<i>Larus pipixcan</i>	Franklin's gull
<i>Lanius ludovicianus</i>	Loggerhead shrike
<i>Leucosticte atrata</i>	Black rosy finch
<i>Leucosticte australis</i>	Brown-capped rosy finch*
<i>Leucosticte tephrocotis</i>	Gray-crowned rosy finch*
<i>Limnodromus scolopaceus</i>	Long-billed dowitcher
<i>Limosa fedoa</i>	Marbled godwit
<i>Lophodytes cucullatus</i>	Hooded merganser*
<i>Melanitta deglandi</i>	White-winged scoter*
<i>Melospiza melodia</i>	Song sparrow
<i>Mergus merganser</i>	Common merganser
<i>Micropalmata himantopus</i>	Stilt sandpiper*
<i>Molothrus ater</i>	Brown-headed cowbird
<i>Numenius americanus</i>	Long-billed curlew*
<i>Numenius phaeopus</i>	Whimbrel*
<i>Nycticorax nycticorax</i>	Black-crowned night-heron
<i>Oreoscoptes montanus</i>	Sage thrasher
<i>Oxyura jamaicensis</i>	Ruddy duck
<i>Passer domesticus</i>	House sparrow
<i>Passerculus sandwichensis</i>	Savannah sparrow
<i>Pelecanus erythrorhynchos</i>	American white pelican
<i>Petrochelidon pyrrhonota</i>	Cliff swallow
<i>Phalacrocorax auritus</i>	Double-crested cormorant
<i>Phalaropus lobatus</i>	Red-necked phalarope
<i>Phalaropus tricolor</i>	Wilson's phalarope
<i>Pica hudsonia</i>	Black-billed magpie
<i>Pipilo chlorurus</i>	Green-tailed towhee

Scientific Name	Common Name
<i>Piranga ludoviciana</i>	Western tanager
<i>Plectrophenax nivalis</i>	Snow bunting*
<i>Plegadis chihi</i>	White-faced ibis
<i>Podiceps auritus</i>	Horned grebe*
<i>Podiceps grisegena</i>	Red-necked grebe*
<i>Podiceps nigricollis</i>	Eared grebe
<i>Podilymbus podiceps</i>	Pied-billed grebe
<i>Poecile atricapilla</i>	Black-capped chickadee
<i>Pooecetes gramineus</i>	Vesper sparrow
<i>Porzana carolina</i>	Sora
<i>Quiscalus quiscula</i>	Common grackle
<i>Rallus limicola</i>	Virginia rail
<i>Recurvirostra americana</i>	American avocet
<i>Riparia riparia</i>	Bank swallow
<i>Salpinctes obsoletus</i>	Rock wren*
<i>Sayornis saya</i>	Say's phoebe
<i>Selasphorus platycercus</i>	Broad-tailed hummingbird
<i>Selasphorus rufus</i>	Rufous hummingbird
<i>Sialia currucoides</i>	Mountain bluebird
<i>Spizella breweri</i>	Brewer's sparrow
<i>Spizella passerina</i>	Chipping sparrow
<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow
<i>Sterna forsteri</i>	Forster's tern
<i>Sterna hirundo</i>	Common tern*
<i>Sturnus vulgaris</i>	European starling
<i>Sturnella magna</i>	Eastern meadowlark*
<i>Sturnella neglecta</i>	Western meadowlark
<i>Tachycineta bicolor</i>	Tree swallow
<i>Tachycineta thalassina</i>	Violet-green swallow
<i>Toxostoma rufum</i>	Brown thrasher
<i>Tringa flavipes</i>	Lesser yellowlegs
<i>Tringa melanoleuca</i>	Greater yellowlegs
<i>Tringa semipalmata</i>	Willet
<i>Tringa solitaria</i>	Solitary sandpiper
<i>Troglodytes aedon</i>	House wren*
<i>Turdus migratorius</i>	American robin
<i>Tyrannus tyrannus</i>	Eastern kingbird
<i>Tyrannus verticalis</i>	Western kingbird
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird
<i>Zenaida macroura</i>	Mourning dove*
<i>Zonotrichia leucophrys</i>	White-crowned sparrow

*Rare sighting.

Appendix H

List of Potentially Occurring Amphibian and Reptile Species

The following amphibian and reptile species potentially occur at the Laramie Plains refuges. Species may be found on one or more of the three refuges.

Scientific Name	Common Name
Amphibians	
<i>Ambystoma tigrinum</i>	Tiger salamander
<i>Bufo baxteri</i>	Wyoming toad
<i>Phrynosoma platyrhinos</i>	Horned lizard
<i>Pseudacris triseriata maculata</i>	Boreal chorus frog
<i>Rana pipens</i>	Northern leopard frog
Reptiles	
<i>Crotalus viridis</i>	Prairie rattlesnake
<i>Pituophis catenifer</i>	Bull snake

Appendix I

List of Potentially Occurring Mammal Species

The following mammals potentially occur at the Laramie Plains refuges. Species may be found on one or more of the three refuges.

Scientific Name	Common Name
<i>Antilocapra americana</i>	Pronghorn
<i>Canis latrans</i>	Coyote
<i>Cervus canadensis</i>	Elk
<i>Chaetodipus hispidus</i>	Hispid pocket mouse
<i>Cynomys leucurus</i>	White-tailed prairie dog
<i>Lepus townsendii</i>	White-tailed jack rabbit
<i>Mephitis mephitis</i>	Striped skunk
<i>Microtus pennsylvanicus</i>	Meadow vole
<i>Mustela frenata</i>	Long-tailed weasel
<i>Mustela vison</i>	Mink
<i>Myotis lucifugus</i>	Little brown myotis
<i>Odocoileus hemionus</i>	Mule deer
<i>Ondatra zibethicus</i>	Muskrat
<i>Perognathus fasciatus</i>	Wyoming pocket mouse
<i>Peromyscus maniculatus</i>	Deer mouse
<i>Procyon lotor</i>	Common raccoon
<i>Reithrodontomys megalotis</i>	Western harvest mouse
<i>Sorex cinereus</i>	Masked shrew
<i>Spermophilus elegans</i>	Wyoming ground squirrel
<i>Spermophilus tridecemlineatus</i>	Thirteen-lined ground squirrel
<i>Sylvilagus audubonii</i>	Desert cottontail
<i>Tamias minimus</i>	Least chipmunk
<i>Taxidea taxus</i>	American badger
<i>Thomomys talpoides</i>	Northern pocket gopher
<i>Vulpes vulpes</i>	Red fox
<i>Zapus hudsonius preblei</i>	Preble's meadow jumping mouse

Appendix J

Compatibility Determination for Wildlife Observation and Wildlife Photography

Uses: Wildlife observation and wildlife photography

Refuge Name: Hutton Lake NWR

County: Albany County, Wyoming

Establishing and Acquisition Authorities: Migratory Bird Conservation Act, Executive Order 5782.

Refuge Purposes:

- “As a refuge and breeding ground for migratory birds and other wild animals.” (Executive Order 5782, dated January 28, 1932)
- “For use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” (16 U.S.C. § 715d [Migratory Bird Conservation Act])

National Wildlife Refuge System Mission

The mission of the 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.

Description of Uses

Provide opportunities that support wildlife-dependent recreation.

Wildlife observation and wildlife photography would be allowed year-round. This CCP will continue the above uses and add the following to improve wildlife observation and wildlife photography:

- Update and improve refuge signs.
- Develop visitor services plan.
- Establish a formal parking area with informational kiosks and brochures.
- Provide walk-in access and accessible trails with markers to designate walking trails to the best wildlife-viewing areas.

- Close roads where necessary to facilitate implementation of visitor services plan and decrease disturbance to wildlife, discourage illegal hunting, and improve maintenance.
- Update existing refuge informational brochures and wildlife list to Service standards.
- Construct accessible photography blinds where appropriate for best opportunity.
- Provide educational materials on wildlife photography techniques.
- Provide an annual educational opportunity with experienced wildlife photographers sharing their expertise.

The refuge will be open for wildlife observation and wildlife photography. Their supporting use (access) would be controlled and regulated through the publication of refuge “tear sheets” and brochures, and through information posted at the kiosks.

Wildlife observation and wildlife photography are two of the six wildlife-dependent, priority public uses specified in the Improvement Act. These uses and their supporting access-related uses can be allowed at the refuge without interfering with the migratory bird resource.

Availability of Resources

Currently, the programs for wildlife observation and wildlife photography are administered using available resources. Implementing new programs, activities, and facilities outlined in this CCP is tied to funding requests in the form of RONS and SAMMS projects.

Anticipated Impacts of the Uses

Short-term impacts: Temporary disturbance may exist to wildlife near the activity. Direct, short-term impacts may include minor damage to refuge trails when wet and muddy, minor damage to vegetation, littering, increased maintenance activity, and potential conflicts with other visitors. These activities would have only minor impacts on wildlife and would not detract from the primary purposes of the refuge.

Long-term impacts: None.

Cumulative impacts: There would be no direct or indirect cumulative impacts anticipated with these uses.

Public Review and Comment

This compatibility determination was prepared concurrently with the draft CCP and EA for the refuge. Public review and comment was achieved concurrently with the public review and comment period for the draft CCP and EA.

Determination

Wildlife observation and wildlife photography, along with their supporting uses, are compatible uses at Hutton Lake NWR.

Stipulations Necessary to Ensure Compatibility

Stipulations regarding the public use program will be made available in published refuge brochures. Dates, closed areas, and other information would be specified:

- Monitor use, regulate access, and maintain necessary facilities to prevent habitat degradation and minimize wildlife disturbance.

Justification

Based on the anticipated biological impacts above and in the EA, wildlife observation and wildlife photography at Hutton Lake NWR will not interfere with the habitat goals and objectives or purposes for which the refuge was established.

Wildlife observation and wildlife photography are priority wildlife-dependent public uses acknowledged in the Improvement Act. These uses promote an appreciation for the natural resources at the refuge. Increased public stewardship will support and complement the Service's actions in achieving the purposes of the refuge and the mission of the National Wildlife Refuge System.

Signature

Ann Timberman 3/25/08
 Ann Timberman Date
 Project Leader, Arapaho NWR
 USFWS, Region 6

Review

Manuel Oliveira 4/11/08
 Manuel Oliveira Date
 Refuge Supervisor
 USFWS, Region 6

Concurrence

Bud Coleman 4/14/08
 Richard A. Coleman, PhD Date
 Assistant Regional Director
 National Wildlife Refuge System
 USFWS, Region 6

Mandatory 15-Year Reevaluation Date: 2022

Appendix K

Compatibility Determination for Environmental Education and Interpretation

Use: Environmental education and interpretation

Refuge Name: Hutton Lake NWR

County: Albany County, Wyoming

Establishing and Acquisition Authorities:

Migratory Bird Conservation Act, Executive Order 5782

Refuge Purposes:

- “As a refuge and breeding ground for migratory birds and other wild animals.” (Executive Order 5782, dated January 28, 1932)
- “For use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” (16 U.S.C. § 715d [Migratory Bird Conservation Act])

National Wildlife Refuge System Mission

The mission of the 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.

Description of Uses

The uses will be a continuation of environmental education and interpretative programs at enhanced and expanded levels. Environmental education consists of activities conducted by refuge staff and partnerships. Interpretation occurs in less formal activities through exhibits, signs, and brochures. Visiting school and nonprofit groups would use the refuge as an outdoor classroom and tour site.

This CCP will continue with the above uses and add the following to improve environmental education and interpretation activities for visitors:

- Update and improve refuge signs.
- Update existing brochures to the Service’s graphic standards.
- In cooperation with University of Wyoming, Wyoming Audubon, and others, offer scheduled environmental education opportunities at Hutton Lake NWR.

- Create programs for students and volunteers to assist in refuge management activities.
- Provide educational opportunities to local youth organizations such as Boy Scouts and Girl Scouts.

These activities will be held during the daytime, most frequently while school is in session (September–May). Less frequently, nonprofit groups would be hosted during the summer months.

Refuge staff will provide the instruction and host classroom tours in most cases. When someone other than refuge personnel leads activities, a special use permit would be issued.

Environmental education and interpretation are two of the six wildlife-dependent, priority public uses specified in the Improvement Act. These uses can be allowed at the refuge without interfering with the migratory bird resource.

Availability of Resources

Currently, environmental education and interpretation programs are conducted using available resources. Implementing new programs, activities, and facilities outlined in this CCP is tied to funding requests in the form of RONS and SAMMS projects.

Anticipated Impacts of the Uses

Short-term impacts: Minimal disturbance to wildlife and wildlife habitat will result from these uses at the current and proposed levels. Adverse impacts are minimized through careful timing and placement of activities. Wildlife near the activities may experience temporary disturbances. Minor damage to vegetation, littering, and increased maintenance may occur. These activities will have only minor impacts on wildlife and will not detract from the primary purposes of the refuge.

Long-term impacts: These activities will increase local support of the refuge and increase knowledge of stewardship of natural resources to students young and old.

Cumulative impacts: There would be no direct or indirect cumulative impacts anticipated with the continuation of these uses.

Public Review and Comment

This compatibility determination was prepared concurrently with the draft CCP and EA for the refuge. Public review and comment will be achieved concurrently with the public review and comment period for the draft CCP and EA.

Determination

Environmental education and interpretation are compatible uses at Hutton Lake NWR.

Stipulations Necessary to Ensure Compatibility

Allow environmental education and interpretation only in designated areas or under the guidance of refuge staff, partnerships, a volunteer, or a trained teacher to ensure minimal disturbance to wildlife, minimal damage to vegetation, and minimal conflicts between user groups.

Disturbance is almost an unavoidable impact of the environmental education and interpretation programs. However, it is through these activities that visitors would receive an understanding of proper etiquette and the impact people have on habitat and wildlife. This information and refuge-specific regulations will be available through visitor contacts, brochures, and kiosks. Periodic law enforcement will ensure compliance with regulations and area closures.

Justification

Based on the anticipated biological impacts above and in the EA, it is determined that environmental education and interpretation at Hutton Lake NWR will not interfere with the habitat goals and objectives or purposes for which it was established.

Environmental education and interpretation are priority wildlife-dependent public uses acknowledged in the Improvement Act. These uses promote an appreciation for the natural resources at the refuge. Increased public stewardship will support and complement the Service's actions in achieving the purposes of the refuge and the mission of the National Wildlife Refuge System.

Signature

Ann Timberman 3/25/08
 Ann Timberman Date
 Project Leader, Arapaho NWR
 USFWS, Region 6

Review

Manuel Oliveira 4/11/08
 Manuel Oliveira Date
 Refuge Supervisor
 USFWS, Region 6

Concurrence

Bud Oliveira 4/14/08
 Richard A. Coleman, PhD Date
 Assistant Regional Director
 National Wildlife Refuge System
 USFWS, Region 6

Mandatory 15-Year Reevaluation Date: 2022

Appendix L

Compatibility Determination for Grazing

Use: Prescribed grazing

Refuge Name: Bamforth NWR, Hutton Lake NWR, and Mortenson Lake NWR

County: Albany County, Wyoming

Establishing and Acquisition Authorities: Migratory Bird Conservation Act, Executive Order 5782

Refuge Purposes:

- “As a refuge and breeding ground for migratory birds and other wild animals.” (Executive Order 5782, dated January 28, 1932)
- “For use as an inviolate sanctuary, or for any other management purpose, for migratory birds.” (16 U.S.C. § 715d [Migratory Bird Conservation Act])

National Wildlife Refuge System Mission

The mission of the 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.

Description of Uses

Prescribed grazing is the use of livestock, usually cattle, to remove standing vegetation, reduce vegetative litter, suppress woody vegetation or noxious weeds, open up vegetation-choked wetlands, or open up areas to sunlight and encourage native grass seedlings and growth. Prescribed grazing is carefully timed, and usually of short duration (usually 2–4 weeks), to target certain species for grazing impacts in order to benefit other species for growth after the competing vegetation has been removed.

Due to the arid climate, when it is determined refuge grasslands will benefit from prescribed grazing, this treatment will occur in the fall of the year (July–October). Grazing will be offered on a market rate or bid system to interested landowners with stipulations for eligibility. Mid-season grazing (July) removes litter and encourages some fall regrowth. Grazing later in the season (August–October) removes litter and encourages spring vegetation growth. Late-season grazing also concentrates

livestock in refuge ponds with dense vegetation when upland grass cures and becomes less palatable. This grazing can facilitate water openings within the vegetation and maintain the integrity of the pond.

Fence construction and maintenance (often a temporary electric fence) and control and rotation of the livestock are the responsibility of the cooperating private party. Market rate grazing fees are determined by the regional office, but may include standard deductions for fence construction and maintenance, frequent livestock rotations, construction of water gaps, or hauling/providing additional water in dry pasture.

The frequency and duration of prescribed grazing on the refuge will be based on site-specific evaluations of the grassland being managed.

This CCP proposes to continue with the above use and add the following to improve management of refuge upland habitats:

- Conduct upland vegetation surveys.
- Evaluate grazing program to determine appropriate stocking rates, duration, and so forth of grazing program.
- Install and maintain fencing to appropriately manage grazing program.

Availability of Resources

Developing grazing plans and special use permits (SUPs) and monitoring compliance and biological effects require some Service resources. Most grazing management costs (fencing labor, monitoring and moving livestock, hauling water) are provided by the cooperator or permittee. Evaluating the grasslands for grazing prescriptions and grassland response is already a part of the refuge grassland management responsibilities. Some alternative form of grassland management, prescribed burning, or haying may be used if the areas are not treated with prescribed grazing. Managing grasslands through permitted haying has comparable costs to managing a prescribed grazing program. Managed mowing would be more expensive, since all labor costs would be assumed by the Service. Prescribed fire can be an effective grassland management tool, but there are personnel and weather limitations on a burning program, as well the fact that some tracts are not suited to burning management. In addition, there is an ecological benefit to rotating grassland management techniques, such as grazing, burning, and haying, at different seasons, rather than just relying on one technique.

Anticipated Impacts of the Uses

Grazing by domestic livestock has the short-term effect of removing some or much of the standing vegetation from a tract of grassland. Properly prescribed, the effect of this removal of vegetation increases the vigor of the grassland, stimulates the growth of desired species of grass and forbs, and reduces the abundance of targeted species such as cool-season exotics, woody species, noxious weeds or invasive species, or cattails. Grazing in the spring may cause the loss of some bird nests due to trampling, and may cause some birds not to nest in areas being grazed. Grazing on public wildlife lands can create an aesthetic issue of concern for some people or visitors who do not understand grassland management. Prescribed grazing is usually of short duration and ultimately enhances the diversity and vigor of grassland habitats. Grazing livestock may create a minor and temporary disturbance to wildlife, but generally do no harm. There is a slight potential for conflict between the visiting public and the livestock or the permittee.

Public Review and Comment

This compatibility determination was prepared concurrently with the draft CCP and EA for the refuge. Public review and comment was achieved concurrently with the public review and comment period for the draft CCP and EA.

Determination

As this activity is an economic use, it must meet the compatibility threshold of “contributing to the Mission and Purposes” of the Refuge System and refuge area. Prescribed grazing is used to improve and manage grassland habitats on refuges and benefit the migratory birds and other wildlife that use these habitats.

The use of grazing as a habitat management tool is compatible at Hutton Lake NWR with the following stipulations.

Stipulations Necessary to Ensure Compatibility

- SUPs will specify the stocking rates, dates of use, and timing for each unit or grazing cell on the refuge.
- The standard grazing fee or bid system, as determined for each state by the regional office, and any standard deductions for any labor or work done on Service lands will be included on the SUP.
- Grazing permittees must comply with all applicable State Livestock Health Laws.
- No supplemental feeding will be allowed

without authorization from the project leader/refuge manager.

- Control and confinement of livestock will be the responsibility of the permittee.
- The permit is issued subject to the revocation and appeals procedure contained in Title 50, Part 25 of the Code of Federal Regulations.

Justification

Controlled grazing by domestic livestock will not materially interfere or detract from the purposes for which the refuge was established. Prescribed livestock grazing creates temporary disturbances to vegetation. Many of these disturbances are desirable for grassland management. Grazing produces an undesirable but short-term impact to grassland nesting birds and site aesthetics. In the long term, prescribed grazing increases grassland vigor, species diversity, and habitat quality. Prescribed grazing is an alternative management tool that can be used to replace or complement prescribed fire, mowing, or haying of Service grasslands. Without periodic disturbance caused by grazing the health of the grassland community would decline.

Signature

Ann Timberman 3/25/08
 Ann Timberman Date
 Project Leader, Arapaho NWR
 USFWS, Region 6

Review

Manuel Oliveira 4/11/08
 Manuel Oliveira Date
 Refuge Supervisor
 USFWS, Region 6

Concurrence

Bud Coleman 4/14/08
 Richard A. Coleman, PhD Date
 Assistant Regional Director
 National Wildlife Refuge System
 USFWS, Region 6

Mandatory 15-Year Reevaluation Date: 2017

Appendix M

Section 7 Biological Evaluation

INTRA-SERVICE SECTION 7 BIOLOGICAL EVALUATION FORM

Originating Persons:

Ann Timberman, Arapaho NWR Complex
Toni Griffin, Region 6, Division of Planning

Telephone Numbers:

Arapaho NWR Complex 970/723 8202
Planning 303/236 4378

Date: January 10, 2008

I. Region: 6

II. Service Activity (Program): Refuges

III. Pertinent Species and Habitat

A. Federally Listed Species and/or their critical habitat within the action area

1. Black-footed Ferret (Endangered)
2. Wyoming toad (Endangered)
3. Preble's meadow jumping mouse (Threatened)
4. Ute ladies'-tresses (Threatened)

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

1. None

C. Candidate species within the action area

1. None

IV. Geographic area, station name, and action

Geographic area: Laramie Plains Basin

Station(s): Bamforth NWR, Hutton Lake NWR, and Mortenson Lake NWR

Action: Issuance and implementation of Laramie Plains Comprehensive Conservation Plan

V. Location (attach map)

A. Ecoregion Number and Name: The Laramie Plains refuges are located within the USFWS Mountain-Prairie Region 6, and specifically in the Platte-Kansas Rivers ecosystem.

B. Counties and State: Albany County, Wyoming

C. Section, township, and range (or latitude and longitude):

Bamforth NWR is located at N 41° 22' 22", W 105° 44' 17", elevation 7,033 feet.

Hutton Lake NWR is located at N 41° 10' 30", W 105° 42' 54", elevation 7,207 feet.

Mortenson Lake NWR is located at N 41° 12' 27", W 105° 49' 25", elevation 7,265 feet.

D. Distance (miles) and direction to nearest town:

Bamforth NWR is located 6 miles northwest of Laramie, WY.

Hutton Lake NWR is located 10 miles southwest of Laramie, WY.

Mortenson Lake NWR is located 15 miles southwest of Laramie, WY.

E. Species/habitat occurrence:

1. Black-footed ferret (*Mustela nigripes*) historically are found in association with prairie dog colonies in basin-prairie shrub lands and sagebrush-grasslands. They occupy prairie dog burrows, feed primarily on prairie dogs; also deer mice, pocket gophers, pocket mice, birds, and ground squirrels. The Black-footed ferret is classified as a federally endangered and is a protected species in Wyoming. Presently the ferret has been re-introduced in the Shirely Basin area of Wyoming. There is historical record of occurrence in Albany County before 1965 but no recent data to suggest occurrence on the Laramie Plains Refuges or in Albany County. (Cerovski et al. 2004)

2. Wyoming toad (*Bufo baxteri*) is found only in Albany County, Wyoming. The toad was first reported by George T. Baxter, a graduate student in the Department of Zoology and Physiology at the University of Wyoming, in his M.S. thesis (1946). Baxter reported that the toad was common within the floodplains and wetlands associated with fresh water ponds and irrigated pastures of Albany County from the 1950s until the early 1970s (Baxter and Stone, 1985).

In 1987, a small population confined to a two square mile area was discovered at Mortenson Lake. Intermittent surveys at Mortenson Lake and nearby habitats, by the Wyoming Game and Fish Department (McCleary 1989, Chamberlain 1990, Peterson 1991) provided evidence that this was the last remaining population of the Wyoming toad. After being discovered in 1987, the population at Mortenson Lake declined sharply. Beginning in 1995, captive bred Wyoming toads were reintroduced at Mortenson Lake to begin reestablishing the toad in Albany County, Wyoming.

Currently, the range of the toad is extremely limited. Only re-introduced populations are known to exist. These occur at Mortenson Lake National Wildlife Refuge, possibly Hutton Lake National Wildlife Refuge and several private land Safe Harbor Agreement areas. Approximately 5,600 toads (in various life stages) were released at Hutton Lake National Wildlife Refuge between 1995 and 2000. Due to drought conditions at the lake during recent years and lack of knowledge as to where the toads dispersed to, no reintroduction attempts have been made since 2000. Survey efforts were done for several years after 2000 on the Refuge, but no toads have been observed since the 2000 reintroduction. Over 35,000 Wyoming toads were released at Mortenson Lake National Wildlife Refuge between 1995 and 2003. In 2004 the Wyoming Toad Recovery Team decided not to release any more captive toads at Mortenson Lake. The thought was that the area may be a population sink and by releasing captive toads this theory could never be proved. The Wyoming toad population continues to survive at Mortenson lake, with some egg masses in some years and toads found every year to date.

3. Preble's meadow jumping mouse (*Zapus hudsonius preblei*) is a small rodent in the Zapodidae family and is 1 of 12 recognized subspecies of the species *Z. hudsonius*, the meadow jumping mouse. Preble's was listed as threatened under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) in May of 1998. The U.S. Fish and Wildlife Service finalized critical habitat for Preble's in Albany, Laramie, Platte, and Converse Counties, Wyoming south of the North Platte River and east of the Laramie Mountains in 2003 (68 FR 37276). In Wyoming, Preble's has been documented in Albany, Laramie, Platte, and Converse Counties south of the North Platte River and east of the Laramie Mountains (Beauvais 2001). Armstrong et al. (1997)

described typical Preble's habitat as "well-developed plains riparian vegetation with relatively undisturbed grassland and a water source in close proximity." Also noted was that Preble's tend to exhibit a preference for "dense herbaceous vegetation consisting of a variety of grasses, forbs, and thick shrubs." Preble's also uses hay meadows and grassy upland areas within 100 meters of the 100 year floodplain (68 FR 37276).

Previously, the Laramie Mountains were generally regarded as the western boundary of Preble's in Wyoming (Beauvais 2001). However, more recently, two specimens collected in the Laramie Basin have been identified as Preble's through skull measurements and tooth fold characteristics (Meaney 2003). Preble's has been documented to exist at Hutton NWR.

4. Ute's ladies-tresses (*Spiranthes diluvialis*) is a perennial terrestrial orchid associated with moist soils near wetland meadows, springs, lakes, and perennial streams. The elevation range of known occurrences is 4,200 to 6,800 feet in alluvial substrates along riparian edges, gravel bars, old oxbows, and moist to wet meadows (Arft and Ranker 1998). The known geographic range of Ute ladies'-tresses includes western Nebraska, southeastern Wyoming, north-central and northwestern Colorado, northern and south-central Utah, eastern Idaho, southwestern Montana, and north-central Washington (Fertig, 2005). In Wyoming, the plant occurs at four locations in Converse, Goshen, Laramie, and Niobrara counties (Fertig 2000). Hartman and Nelson surveyed the Laramie Basin from 1994 through 1999 for Ute ladies'-tresses and did not locate any new populations. In addition, Don Hazlett, a botanical consultant under contract to the BLM, surveyed private land in southeast Wyoming from 1995 through 1997 and did not discover any populations in Albany County. However, suitable habitat exists for the plant at lower elevations along streams in Albany County.

VI. Description of proposed action: Issuance and implementation of the Laramie Plains NWRs Comprehensive Conservation Plan.

VII. Determination of effects

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

1. Although prairie dog towns do occur in on the Laramie Plains Refuges, there has been no documented use of the Refuges by black-footed ferrets in the recent past. The proposed sagebrush upland management changes proposed by the CCP are not expected to negatively impact prairie dog colonies so would have no effect on black-footed ferrets if they were found here.
2. Refuge use by the Wyoming Toad is not expected to change with a change in management of the wetland habitats that will occur after the CCP is completed. On Mortenson Lake NWR, Mortenson Lake and other areas will be managed to protect, create and maintain habitat suitable for Wyoming toad recovery from endangered status. Hutton Lake NWR has not had documented Wyoming toad use for seven years and wetland management changes proposed in the CCP would maintain habitat preferred by the toad.
3. Refuge use by Preble's meadow jumping mouse is not expected to change with the implementation of the CCP. Habitat management actions on Hutton Lake NWR where Preble's has been documented will maintain or increase habitat preferred by Preble's meadow jumping mouse.

4. Elevations for the Laramie Plains Refuges are above the reported elevation limit of 6,900 feet for Ute's ladies-tresses. The likelihood of this species presence is discountable and there will be no effect with the implementation of the CCP

B. Explanation of actions to be implemented to reduce adverse effects:

1. The actions of the CCP implementation on Bamforth, Hutton Lake and Mortenson Lake NWR's are not expected to create adverse effects on black-footed ferrets, Wyoming toads, Preble's meadow jumping mice and Ute's ladies-tresses. The implementation of a more defined management at Mortenson Lake may create more suitable habitat for the Wyoming toad.

VIII. Effect determination and response requested

A. Listed species/designated critical habitat

Determination	Response requested
<u>No effect/no adverse modification</u>	<u>*Concurrence</u>
(Black-footed ferret, Ute's ladies-tresses)	<u>SH</u>
May affect, but is not likely to adversely affect species/adversely modify critical habitat (Wyoming toad, Preble's meadow jumping mouse)	_____ Concurrence
May affect, and is likely to adversely affect species/modify critical habitat (species: None)	_____ Formal Consultation

B. Proposed species/proposed critical habitat

Determination	Response requested
<u>No effect on proposed species/no adverse modification of proposed critical habitat</u>	<u>*Concurrence</u>
(species: None)	<u>SH</u>
Is likely to jeopardize proposed species or adversely modify proposed critical habitat (species: None)	_____ Conference

C. Candidate Species

Determination	Response requested
<u>No effect</u>	<u>*Concurrence</u>
(species: None)	<u>SH</u>
May affect, but is not likely to adversely affect species/adversely modify critical habitat (species: None)	_____ Concurrence

Is likely to jeopardize candidate species
(species: None)

_____ Conference

Ann Timberman 11/10/08
Ann Timberman, Project Leader Date
Arapaho NWR Complex

IX. Reviewing ESO Evaluation
Concurrence SH Nonconcurrence _____
Formal Consultation required _____
Conference required _____
Informal conference required _____

Brian Kelly 11/31/2008
Brian Kelly, Field Supervisor Date
Ecological Services, Cheyenne, WY

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