Chapter 1 Introduction and Background

Western screech owl
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Chapter 1 Introduction and Background

1.1 Introduction

Deer Flat National Wildlife Refuge (Refuge or NWR), located near the city of Nampa in southwest Idaho, is managed by the U.S. Fish and Wildlife Service (Service or FWS) as part of the National Wildlife Refuge System (NWRS or Refuge System). The mission of the NWRS is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. In this Final Comprehensive Conservation Plan and Environmental Impact Statement (CCP/EIS) for the Refuge, we describe four alternatives for managing the Refuge for 15 years.

President Theodore Roosevelt established the Refuge in 1909 as the Deer Flat Reservation (Executive Order [E.O.] 1032), on Deer Flat Reservoir (Lake Lowell), the first reservoir completed for the Bureau of Reclamation's (Reclamation) Boise Project. Most of the Refuge is an overlay on Lake Lowell. The Refuge was established to provide refuge and breeding grounds for migratory birds and other wildlife, subject to use by the Department of Interior for reclamation work (E.O. 7655). This means that the Service has an obligation to manage uses of the Refuge consistent with the National Wildlife Refuge System Administration Act (16 U.S.C. 668dd-668ee, et seq.) and other laws, regulations, and policies governing the Refuge System, but our management may not interfere with Reclamation operations and incidental purposes.

In 1994, compatibility determinations were created for upland uses occurring at the Refuge, but none were completed for on-water uses at that time. The Service and Reclamation agree the U.S. Fish and Wildlife Service NWRS has jurisdiction over surface water and public uses on Lake Lowell as long as our management does not interfere with Reclamation operations and incidental purposes. Because the Service has responsibility for the management of all public uses within the Refuge, including on-water recreational uses, these uses must be examined as part of the CCP process to ensure that they are compatible with the purposes of the Refuge as required by law.

The Refuge encompasses nearly 11,700 acres within two units: the Lake Lowell Unit and Snake River Islands Unit (see Maps 1 and 2). According to geographic information system (GIS) estimates, the Lake Lowell Unit covers more than 10,500 acres within Idaho's Canyon County, including the 9,000-acre overlay area on Lake Lowell. The Snake River Islands Unit includes approximately 1,200 acres on more than 104 islands scattered along 113 miles of the Snake River, between two states (Idaho and Oregon) and five counties (Canyon, Payette, Owyhee, and Washington counties in Idaho; and Malheur County in Oregon).

1.2 History of the Landscape

The presettlement landscape of southwest Idaho was much different than it is today. Native Americans hunted and gathered on the lands in and around the Refuge, finding rich sources of food. The hills were filled with sagebrush, rabbitbrush, and native bunchgrasses that provided homes for wildlife ranging from burrowing owls to spadefoot toads, beetles to badgers, and butterflies to sparrows.

Euro-Americans, who traveled through this part of Idaho in the late 1800s and early 1900s and eventually settled here, recognized the harsh reality that little rain—less than 10 inches a year—fell upon this high desert environment. Even though occasional springs supplied much-needed water that fed grasses and attracted deer and elk, settlers realized that it was not enough to carve out a life.

By 1904, Idaho's first water reclamation project was initiated at Minidoka, which became the site of the first hydroelectric dam in the West. Impressed by the Minidoka Project, State Engineer D.W. Ross, and J.H. Lowell, President of the Boise-Payette Water Users Association, successfully lobbied Congress to fund an irrigation project for Boise, Idaho. The Boise Project was authorized by the Secretary of the Interior under the Reclamation Act of 1902 on March 27, 1905. When Federal funding fell short of what was needed, J.H. Lowell organized local farmers and raised matching funds to support the project. In 1906 work on the Deer Flat Reservoir began as part of the Boise-Payette Project. Materials from local quarries and the work of local citizens helped build the reservoir. When Deer Flat Reservoir was completed, it was the largest human-made reservoir on earth, held in by three dams and one dike. The longest dam, called the Lower Embankment (Lower Dam), stretches 1.5 miles. The tallest dam at 74 feet, the Upper Embankment (Upper Dam) is 0.75 mile long. The Deer Flat Reservoir was critical to the development of the Boise Basin.

President Theodore Roosevelt created a national bird refuge at Deer Flat Reservoir, with Executive Order 1032. The Refuge was one of 21 Federal Reclamation Projects referenced in the order, each of which used man-made reservoirs to provide safe havens for migratory birds and other wildlife.

Reclamation operated and maintained Deer Flat Reservoir until 1926, when operation and maintenance was transferred to the Boise Project Board of Control (Board of Control), via repayment contracts with the five irrigation districts that comprise the Board of Control—Big Bend, Boise-Kuna, Nampa & Meridian, New York, and Wilder irrigation districts

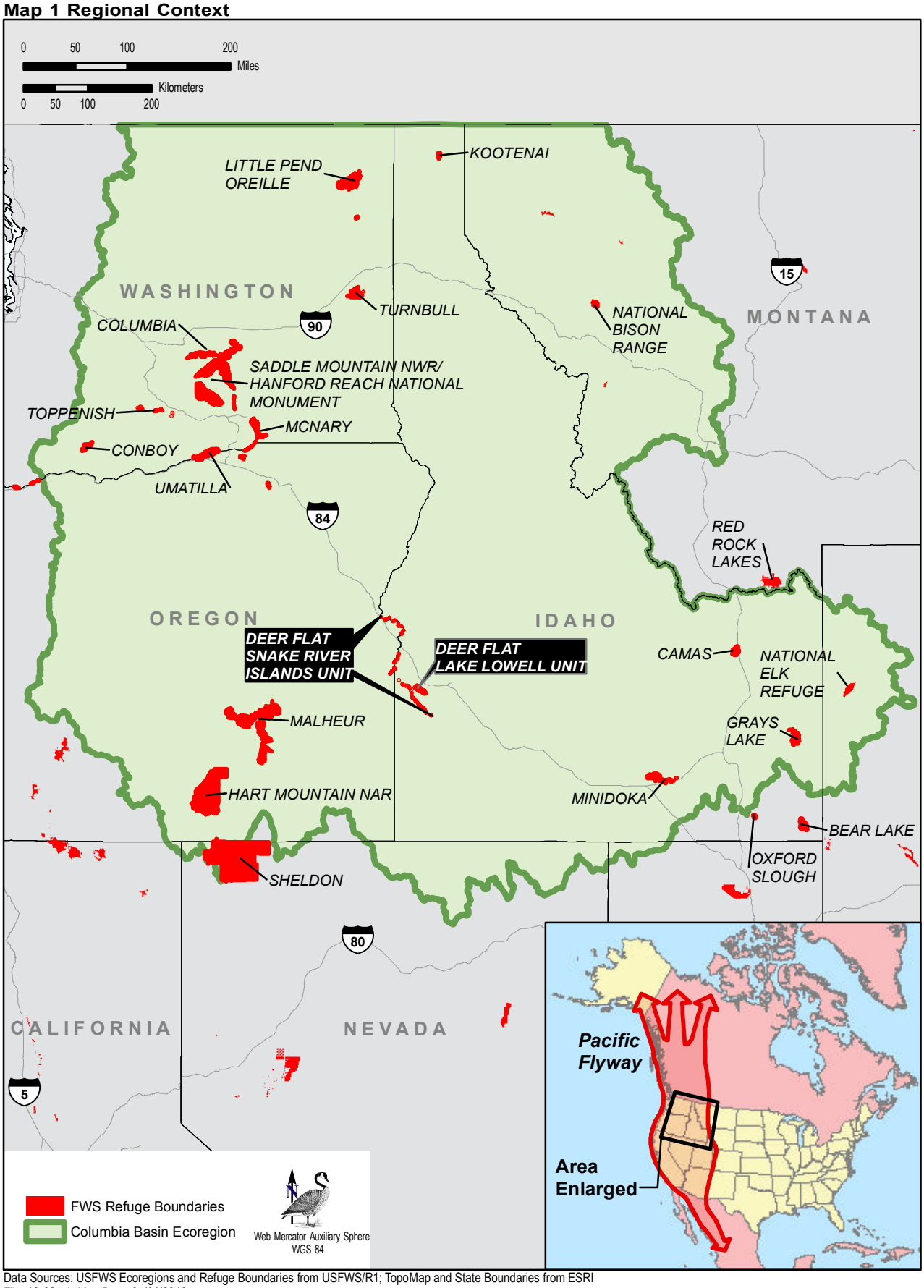
The Deer Flat Bird Reservation remained the only national wildlife refuge in southwest Idaho until 1937, when, through the efforts of President Franklin D. Roosevelt and J. Clark Salyer, 36 islands in the Snake River were designated as the Snake River Islands National Wildlife Refuge. Both Refuges were managed by the Deer Flat Bird Reservation, which was re-established and renamed Deer Flat Migratory Waterfowl Refuge (E.O. 7655) on July 12, 1937.

In 1940, the Refuges were renamed the Deer Flat National Wildlife Refuge and the Snake River National Wildlife Refuge, and in 1963 the Refuges were consolidated as two units of Deer Flat National Wildlife Refuge. Deer Flat Reservoir was renamed Lake Lowell in 1948 in recognition of J.H. Lowell's work to develop the reservoir, and in 1976, the Lower and Upper Dams were included on the National Register of Historic Places because of their role in Idaho's history.

1.3 Biological Significance of the Refuge

Nestled in the rolling sagebrush hills of southwest Idaho, the Refuge provides a variety of wildlife habitats, including the open waters and wetland edges of the Lake Lowell Unit, sagebrush uplands and riparian forest around the lake, and grassland and riparian forests on the Snake River Islands Unit. Lake Lowell provides a resting and wintering area for migratory birds along the Pacific Flyway in the fall and winter, and important areas for nesting species in spring and summer. The Refuge is recognized by the National Audubon Society as a State Important Bird Area (Audubon 2012).

Map 1 Regional Context



Data Sources: USFWS Ecoregions and Refuge Boundaries from USFWS/R1; TopoMap and State Boundaries from ESRI
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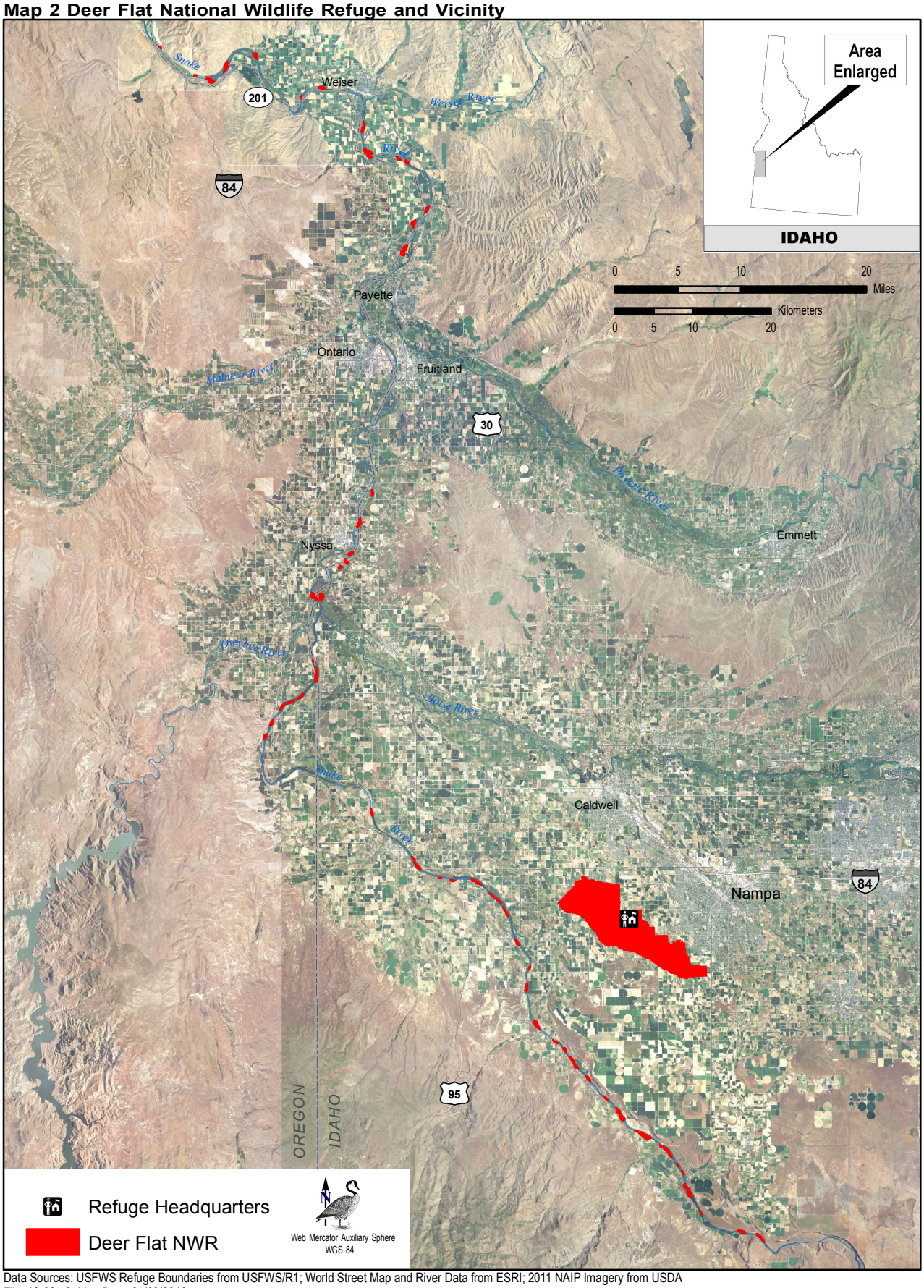
Map 2 Deer Flat National Wildlife Refuge and Vicinity



Data Sources: USFWS Refuge Boundaries from USFWS/R1; World Street Map and River Data from ESRI; 2011 NAIP Imagery from USDA
File: 12-005-2 Map Date: 05/03/2012

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In spring, bald eagles, ospreys, and great horned owls nest on both Refuge units, with most feeding nestlings by the end of April. In April and May, great blue herons, black-crowned night herons, and double-crested cormorants nest in large rookeries on some of the islands in the Snake River Islands Unit, and up to 10,000 pairs of California gulls nest on Smith Island.

In early summer, western grebes dance on Lake Lowell while resident bald eagles look for food for their young. Visitors can see large numbers of white pelicans on the lake and large broods of Canada geese on pastures and fields adjacent to the Snake River. By late July and early August, mallards and wood ducks begin to congregate on the lake, looking for food in flooded vegetation.

As irrigation waters recede in late summer and early fall, the large exposed mudflats provide important feeding areas for shorebirds such as dowitchers, sandpipers, godwits, yellowlegs, and plovers, migrating south to wintering areas. The Intermountain West Shorebird Regional Plan (Oring et al. 2000) names Lake Lowell as one of only two sites in Idaho where more than 5,000 shorebirds were observed in more than half of the years surveyed.

As fall sets in, the number of birds using the Refuge increases. Resident flocks of ducks and up to 6,000 Canada geese are usually on Lake Lowell by the second week of October. As colder weather drives migrating ducks and geese south, migratory birds join the resident birds at the lake. Some birds pass through, while others spend the winter. By mid-November, the goose population peaks at up to 15,000 birds. Duck populations peak in mid-December, with up to 70,000 ducks using Lake Lowell annually. Mallards predominate, but small numbers of northern pintail, American wigeon, green-winged teal, wood duck, common merganser, and northern shoveler are also present. The Snake River also provides a winter home for a variety of ducks and geese.

Emergent vegetation along the edges of the lake, such as smartweed, provides a food source for waterfowl, nesting material for on-water nesting birds such as western and Clark's grebes, and cover for fish. Lake Lowell provides habitat for one of the three largest nesting colonies of western grebes in Idaho (pers. comm., C. Moulton 2010). Western and Clark's grebes are considered species of greatest conservation need by the Idaho Department of Fish and Game (IDFG), because appropriate nesting sites are lacking (IDFG 2005).

Bald eagles, osprey, great blue herons, and other colonial nesting birds are attracted to the riparian areas of the Lake Lowell and Snake River Islands Units. The upland habitats of the units provide habitat for nesting California gulls and Canada geese and a variety of other native wildlife. The Snake River Islands' grassland, shrub, and riparian forest habitats and surrounding waters provide habitat throughout the year for herons, cormorants, songbirds, and predators, such as foxes, coyotes, red-tailed hawks, and American kestrels.

1.4 Proposed Action

We are proposing to implement a CCP for Deer Flat National Wildlife Refuge. This document is the Refuge's Final CCP/EIS. CCPs set forth management guidance for a refuge for a period of 15 years, as required by the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee, et seq.), as amended by the National Wildlife Refuge System Improvement Act (Improvement Act) of 1997 (Public Law 105-57). The Refuge System Administration Act requires CCPs to identify and describe:

- The purposes of a refuge;
- The fish, wildlife and plant populations, their habitats, and the archaeological and cultural values found on a refuge;
- Significant problems that may adversely affect wildlife populations and habitats and solutions for correcting or mitigating the effects of those problems;
- Areas suitable for administrative sites or visitor facilities; and
- Opportunities for fish- and wildlife-dependent recreation.

NWRS planning policy (602 FW 3, June 2000) states that the purpose of CCPs is to "describe the desired future conditions of a refuge and provide long-range guidance and management direction to achieve refuge purposes; help fulfill the National Wildlife Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; … and meet other mandates."

The proposed action in this Final CCP/EIS is to implement Alternative 2, which has been identified as the Service's Preferred Alternative. We have developed and examined three other alternatives for future management of the Refuge and identified anticipated effects (see Chapter 6) for each alternative, pursuant to the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321-4347). A fifth alternative was partially developed then dismissed due to its similarity to Alternative 3.

The goals, objectives, and strategies under Alternative 2 (Preferred Alternative) best achieve the purpose and need for the CCP, while maintaining balance among the varied management needs and programs. Operation and maintenance of the Deer Flat Dams, reservoir storage, appurtenant structures and Reclamation zones and the delivery of the irrigation storage water are the responsibility of Reclamation and the Board of Control. Alternative 2 represents the most balanced approach for achieving the Refuge's purposes, vision, and goals; contributing to the Refuge System's mission; addressing relevant issues and mandates; and managing the Refuge consistent with the sound principles of fish and wildlife management. For details on the specific components and actions constituting the range of alternatives, see Chapter 2.

1.5 Purpose and Need for Action

The need for the CCP is to provide reasonable, scientifically grounded guidance for ensuring that over a period of 15 years, as directed by the National Wildlife Refuge System Administration Act of 1966, as amended, Deer Flat NWR will achieve the following purposes.

- Enhance, maintain, and protect Refuge habitats (including mudflats, emergent beds, and open water habitats of Lake Lowell, riparian forests, nonlake wetlands, and shrub-steppe) for the benefit of migratory birds and other wildlife.
- Gather sufficient scientific information to guide responsible adaptive management decisions.
- Provide visitors with compatible wildlife-dependent and nonwildlife-dependent recreational opportunities that foster an appreciation and understanding of the Refuge's fish, wildlife, and plants, and their habitats, and have limited impacts to wildlife.
- Initiate and nurture relationships and develop cooperative opportunities to promote the importance of the Refuge's wildlife habitat, and support Refuge stewardship.

- Protect and manage the Refuge's cultural resources, and identify new ways to gain an understanding of the Lake Lowell and Snake River Islands Units' history and cultural resources.

1.6 Legal and Policy Guidance

The Refuge is part of the NWRS, managed within a framework provided by legal and policy guidelines. The Refuge System is the world's largest network of public lands and waters set aside specifically for conserving wildlife and protecting ecosystems.

1.6.1 The U.S. Fish and Wildlife Service

The Refuge System is managed by the U.S. Fish and Wildlife Service, an agency within the Department of the Interior. The Service is the principal Federal agency responsible for conserving, protecting, and enhancing the nation's fish and wildlife populations and their habitats. The mission of the Service is: "working with others, to conserve, protect and enhance fish and wildlife and their habitats for the continuing benefit of the American people." Although we share this responsibility with other Federal, State, Tribal, local, and private entities, the Service has specific trust responsibilities for migratory birds, endangered and threatened species, and certain anadromous fish and marine mammals. The Service has similar trust responsibilities for the lands and waters we administer to support the conservation and enhancement of fish, wildlife, and plants, and their habitats. The Service also enforces Federal wildlife laws and international treaties for importing and exporting wildlife, assists with State fish and wildlife programs, and helps other countries develop wildlife conservation programs.

1.6.2 National Wildlife Refuge System

The needs of wildlife and their habitats come first on national wildlife refuges, in contrast to other public lands that are managed for multiple uses. Refuges are guided by various Federal laws and Executive Orders, Service policies, and international treaties. Fundamental are the mission and goals of the NWRS and the designated purposes of the refuge unit, as described in establishing legislation, executive orders, or other documents establishing, authorizing, or expanding a refuge.

Key concepts and guidance of the Refuge System derive from the National Wildlife Refuge System Administration Act of 1966 as amended (16 U.S.C. 668dd-668ee, et seq.); the Refuge Recreation Act of 1962 (16 U.S.C. 460k-460k-4), as amended; Title 50 of the Code of Federal Regulations (C.F.R.); and the Fish and Wildlife Service Manual. The National Wildlife Refuge System Administration Act is implemented through regulations covering the NWRS, published in Title 50, subchapter C of the C.F.R. These regulations govern general administration of units of the Refuge System.

1.6.2.1 National Wildlife Refuge System Mission and Goals

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 Administration Act of 1966, as amended).

The goals of the NWRS, as articulated in the Mission Goals and Purposes Policy (601 FW 1), are to:

- Conserve a diversity of fish, wildlife, and plants and their habitats, including species that are endangered or threatened with becoming endangered.
- Develop and maintain a network of habitats for migratory birds, anadromous and inter-jurisdictional fish, and marine mammal populations that are strategically distributed and carefully managed to meet important life history needs of these species across their ranges.
- Conserve those ecosystems, plant communities, wetlands of national or international significance, and landscapes and seascapes that are unique, rare, declining, or underrepresented in existing protection efforts.
- Provide and enhance opportunities to participate in compatible wildlife-dependent recreation (hunting, fishing, wildlife observation and photography, and environmental education and interpretation).
- Foster understanding and instill appreciation of the diversity and interconnectedness of fish, wildlife, and plants and their habitats.

1.6.2.2 National Wildlife Refuge System Administration Act

Of all the laws governing activities on national wildlife refuges, the Refuge Administration Act undoubtedly exerts the greatest influence. The Improvement Act amended the Refuge System Administration Act in 1997 by including a unifying mission for all national wildlife refuges as a system, a new process for determining compatible uses on refuges, and a requirement that each refuge be managed under a comprehensive conservation plan, developed in an open public process.

The Refuge Administration Act states that the Secretary shall provide for the conservation of fish, wildlife and plants, and their habitats within the Refuge System, as well as ensure that the biological integrity, diversity, and environmental health of the System are maintained. House Report 105-106 accompanying the Improvement Act states “the fundamental mission of our System is wildlife conservation: wildlife and wildlife conservation must come first.” Biological integrity, diversity, and environmental health are critical components of wildlife conservation. As later made clear in the Biological Integrity, Diversity and Environmental Health Policy (601 FW 3), “the highest measure of biological integrity, diversity, and environmental health is viewed as those intact and self-sustaining habitats and wildlife populations that existed during historic conditions.”

Under the Refuge Administration Act, each refuge must be managed to fulfill the Refuge System mission as well as the specific purposes for which it was established. The Refuge Administration Act requires the Service to monitor the status and trends of fish, wildlife, and plants in each refuge.

Additionally, the Refuge Administration Act identifies six priority wildlife-dependent recreational uses for the Refuge System (the “Big Six”). These uses are hunting, fishing, wildlife observation and photography, and environmental education and interpretation. Under the Refuge Administration Act, the Service is to grant these six wildlife-dependent public uses special consideration in the planning for, management of, and establishment and expansion of units of the NWRS. The overarching goal for wildlife-dependent public use programs is to enhance opportunities and access to quality wildlife-dependent visitor experiences on refuges, while managing refuges to conserve fish, wildlife, plants, and their habitats. When determined compatible on a refuge-specific basis, these six uses assume priority status among all uses of the refuge in question. The Service is to make extra efforts to facilitate priority wildlife-dependent public use opportunities.

When preparing a CCP, refuge managers must re-evaluate all general public, recreational, and economic uses (even those occurring to further refuge habitat management goals) proposed or occurring on a refuge for appropriateness and compatibility. No refuge use may be allowed or continued unless it is determined to be appropriate and compatible. Generally, an appropriate use is one that contributes to fulfilling a refuge's purposes, the Refuge System mission, or goals or objectives described in a refuge management plan. A compatible use is a use that, in the sound professional judgment of the refuge manager, will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge. Appropriate use and updated compatibility determinations for existing and proposed uses for the Deer Flat Refuge are in Appendices A and B of this Final CCP/EIS.

The Refuge Administration Act also requires that in addition to formally established guidance, the CCP must be developed with the participation of the public. Issues and concerns articulated by the public play a role in guiding alternatives considered during the development of the CCP, and with the formal guidance, can play a role in selection of the preferred alternative. It is Service policy to develop CCPs in an open public process; we are committed to securing public input throughout the process. Appendix H of the Final CCP/EIS details public involvement that has occurred so far in the CCP process.

1.6.3 Other Laws and Mandates

Many Federal laws, executive orders, Service policies, and international treaties govern the Service and Refuge System lands. Examples include the Migratory Bird Treaty Act of 1918, Refuge Recreation Act of 1962, National Historic Preservation Act of 1966, and the Endangered Species Act of 1973. For additional information on laws and other mandates, a list and brief description of Federal laws of interest to the Service can be found in the Laws Digest at http://www.fws.gov/laws/Lawsdigest.html.

The Service has developed or revised numerous policies and Director's Orders to reflect the mandates and intent of the Improvement Act. Some of these key policies include the Biological Integrity, Diversity, and Environmental Health Policy (601 FW 3); the Compatibility Policy (603 FW 2); the Comprehensive Conservation Planning Policy (602 FW 3); Mission, Goals, and Purposes (601 FW 1); Appropriate Refuge Uses (603 FW 1); Wildlife-Dependent Public Uses (605 FW 1); wilderness-related policies (610 FW 1-5); and the Director's Order for Coordination and Cooperative Work with State Fish and Wildlife Agency Representatives on Management of the National Wildlife Refuge System. These policies and others in draft or under development can be found at http://fws.gov/refuges/policymakers/nwrpolicies.html. In developing a CCP, refuges must consider these broader laws and policies as well as Refuge System and ecosystem goals and visions. The CCP must be consistent with these and also with the Refuge's purpose.

1.7 Refuge Establishment and Purposes

1.7.1 Legal Significance of the Refuge Purpose

The purpose for which a refuge was established or acquired is of key importance in refuge planning. Refuge purposes must form the foundation for management decisions. They are the driving force in the development of the refuge vision statements, goals, objectives, and strategies in a CCP and are critical to determining the compatibility of existing and proposed refuge uses. The purposes of a

refuge are specified in or derived from the law, proclamation, executive order, agreement, public land order, donation document, or administrative memorandum establishing, authorizing, or expanding a refuge, refuge unit, or refuge subunit.

Unless the establishing law, order, or other document indicates otherwise, purposes dealing with the conservation, management, and restoration of fish, wildlife, and plants, and the habitats on which they depend, take precedence over other purposes in the management and administration of any unit. Where a refuge has multiple purposes related to fish, wildlife, and plant conservation, the more specific purpose will take precedence in instances of conflict. When an additional unit is acquired under an authority different from the authority used to establish the original unit, the addition takes on the purpose(s) of the original unit, but the original unit does not take on the purpose(s) of the newer addition. When a conflict exists between the Refuge System mission and the purpose of an individual refuge, the refuge purpose may supersede the mission.

1.7.2 History of Refuge Establishment and Purposes

President Theodore Roosevelt originally established Deer Flat Bird Reservation in 1909 as a "preserve and breeding grounds for native birds" (E.O. 1032). As an overlay refuge, the purpose of the Refuge can in no way impede the irrigation purpose of the Reclamation reservoir. In 1937, President Franklin D. Roosevelt revoked E.O. 1032 and re-established the Refuge as the Deer Flat Migratory Waterfowl Refuge to "further the purposes of the Migratory Bird Conservation Act" and "as a refuge and breeding ground for migratory birds and other wildlife" (E.O. 7655). Also in 1937, 36 islands in the Snake River were designated as the Snake River Migratory Bird Refuge (E.O. 7691) to serve "as a refuge and breeding ground for migratory birds and other wildlife" (E.O. 7691).

In 1940, the Refuges' names were changed by Presidential Proclamation No. 2416, to Deer Flat National Wildlife Refuge and Snake River National Wildlife Refuge, respectively. In 1963, Public Land Order 3110 transferred all lands of the Snake River National Wildlife Refuge (consisting of 74 islands) to the direct jurisdiction of Deer Flat National Wildlife Refuge. Per national policy, any lands (including those in the Snake River Islands Refuge) that were added to Deer Flat Refuge assume the purposes for which Deer Flat Refuge was established, as well as keeping any individual purposes that were provided at the time of their establishment or acquisition.

The current Refuge purposes are:

- "as a refuge and breeding grounds for migratory birds and other wildlife" (E.O. 7655, dated July 12, 1937).
- "for use as an inviolate sanctuary, or for any other management purpose, for migratory birds" (16 U.S.C. 715d, Migratory Bird Conservation Act)
- "suitable for—(1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species" (16 U.S.C. 460k-1, Refuge Recreation Act)
- "the Secretary … may accept and use … real … property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors" (16 U.S.C. 460k-2, Refuge Recreation Act).

For more information on Refuge establishment, see Appendix I.

1.7.3 Land Status and Ownership

Tables 1-1 and 1-2 and Maps 2 and 3 show the lands associated with the Refuge. The acreage figures are generated from our geographic information systems (GIS).

Table 1-1. Land Ownership Status

Refuge/Unit	Refuge Lands Owned in Fee (acres[1])	Refuge Lands Overlaid on Reclamation Lands (acres[1])	Total Acres[1]
Lake Lowell Unit	626	9,993	10,619
Snake River Islands Unit	1,219	0	1,219
Deer Flat NWR	**1,845**	**9,993**	**11,838**

[1] Acres generated from GIS are rounded to the nearest acre.

Table 1-2. Acquisition Authorities

Land Tracts	Acquisition Authority	Total Acres[a]
Lake Lowell Tract 4 (Refuge Maintenance Area)	Migratory Bird Conservation Commission	73
Lake Lowell Tract 5 (Gotts Point)	Migratory Bird Conservation Commission	61
Lake Lowell Tract 8	Migratory Bird Conservation Commission	13
Lake Lowell Tract 51 (Leavitt Tract)	Migratory Bird Conservation Commission	80
All other Refuge lands	Executive Orders, Presidential Proclamation, Public Land Orders and Mitigation	11,612

[a] Rounded to the nearest acre.

1.7.4 Special Designation Lands

1.7.4.1 Important Bird Area

The Important Bird Areas (IBA) program is a global effort to identify the most important areas for maintaining bird populations and focusing conservation efforts on protecting these sites. Within the United States, the program has been promoted and maintained by the American Bird Conservancy (ABC) and the National Audubon Society (Audubon). The ABC coordinates the identification of nationally significant IBAs, while Audubon identifies sites in individual states that provide critical habitat for birds. This effort recognizes that habitat loss and fragmentation are the most serious threats to birds across North America and around the world. By working through partnerships, principally the North American Bird Conservation Initiative, to identify those places that are critical to birds during some part of their life cycle (breeding, wintering, feeding, migrating), the IBA program hopes to minimize the effects that habitat loss and degradation have on bird populations.

Idaho's IBA program was launched in 1996 as a partnership between Idaho Partners in Flight and the Idaho Audubon Council. Since 1997, the IBA Technical Committee has encouraged and reviewed nominations for potential IBAs. To date, 55 sites have been officially recognized as IBAs in Idaho, representing 3.8 million acres of public and private wetland and upland habitat throughout the state. The IBA Program in Idaho is currently housed in the Nongame and Endangered Wildlife Program of the Idaho Department of Fish and Game (IDFG 2005).

In order to be identified as an IBA, sites must meet criteria in at least one of the following categories: species of conservation concern (e.g., threatened and endangered species); range-restricted species (species vulnerable because they are not widely distributed); species that are vulnerable because their populations are concentrated in one general habitat type or biome; and species, or groups of similar species (such as waterfowl or shorebirds), that are vulnerable because they occur at high densities due to their congregative behavior (Audubon 2012).

Deer Flat NWR was identified as a State IBA based on three criteria: importance for waterfowl (State Criteria D4ii), for other colonial waterbirds (State Criteria D4iv), and for shorebirds (State Criteria D4v). Waterfowl, especially Canada geese and mallards, use the Refuge for breeding, wintering area, and a migratory stopover. Colonial waterbirds nest on both Lake Lowell and the Snake River Islands Units of the Refuge, including California gulls, great blue herons, black-crowned night herons, double-crested cormorants, and western and Clark's grebes. The mudflats at Lake Lowell are such a highly used stopover for shorebirds during summer and fall migration that Lake Lowell is one of only two sites in Idaho with greater than 5,000 shorebirds observed in more than half the years it was surveyed (Oring et al. 2000). Some of the shorebirds present in late summer and fall include pectoral, least, Baird's, solitary, spotted, and stilt sandpipers; marbled godwits; and long-billed dowitchers.

1.8 Relationship to Ecosystem Management Efforts

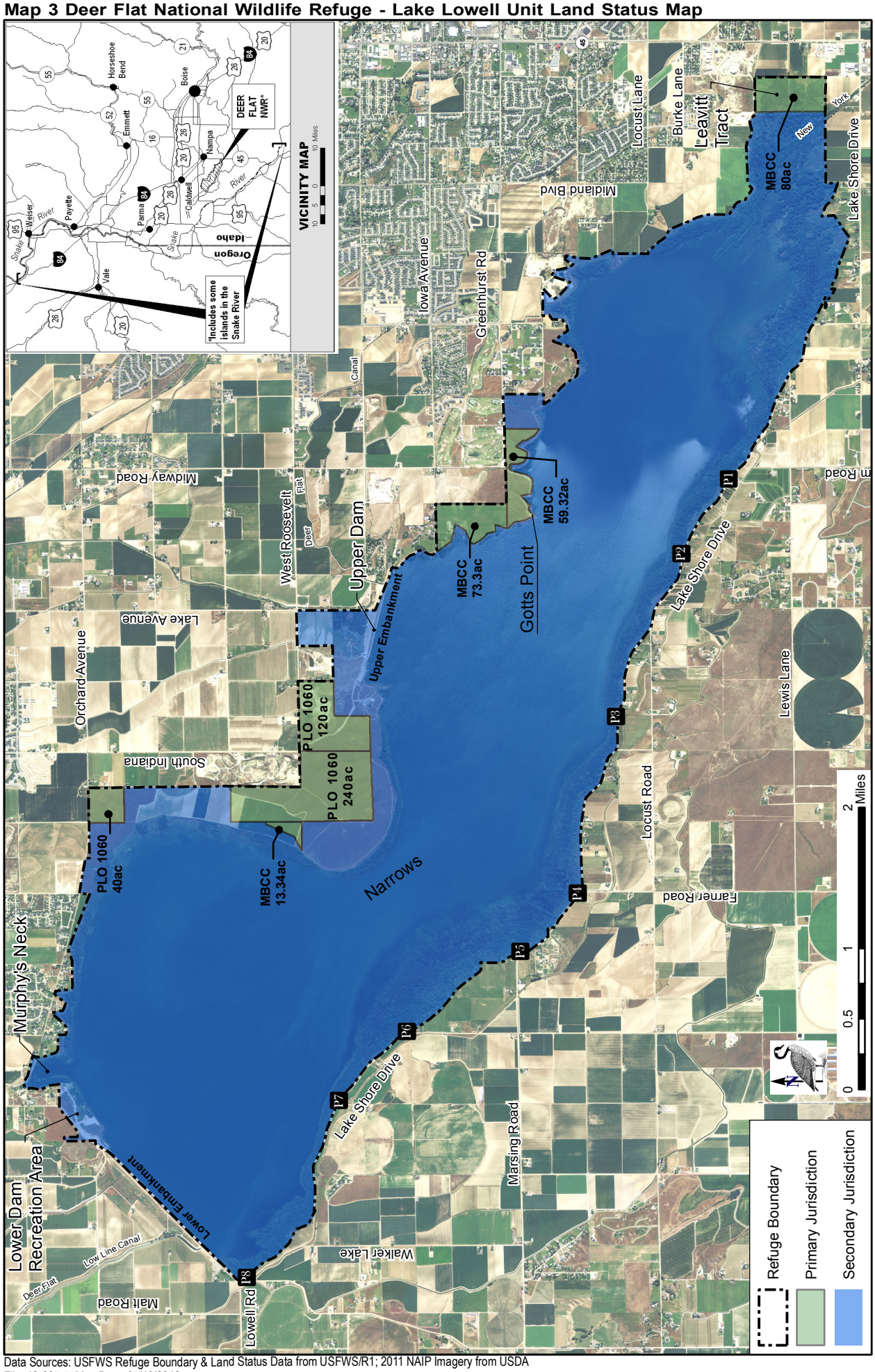
When developing a CCP, the Service considers the goals and objectives of existing national, regional, state, and ecoregion/ecosystem efforts, plans, and assessments. The CCP is to be consistent with existing plans and assist in meeting their conservation goals and objectives (602 FW 3). This section summarizes some of the key plans reviewed by the CCP planning team during development of the Final CCP/EIS.

1.8.1 Relationship to Previous Refuge Plans

Because this is the first CCP written for the Refuge, it will be the first management plan to fully implement the National Wildlife Refuge System Improvement Act of 1997. Although earlier plans made attempts to address conflicts between public use and wildlife, these plans made little mention of the scientific information used to determine the appropriate actions to take. Plans created after the passage of the National Wildlife Refuge Administration Act of 1966 are summarized here, because in that period, guidance for Refuge activities more closely aligns with the guidance provided for CCPs in the Improvement Act.

- A Master Plan was developed in 1968 with a Recreation Management Plan completed shortly thereafter. These plans express a need to put wildlife first: "Foremost among refuge objectives is the preservation and management of the waterfowl and other wildlife resources. Public use of the refuge is and will continue to be a subordinate refuge objective" (USFWS 1970). The public use regulations at this time did not allow any motorized boats in the southeast end of the Refuge (USFWS 1968). The Recreation Management Plan also states, "Those uses associated with wildlife and wildlife environments are regarded as highest in objective even though they may be lower in number of participation visits than other uses," making it clear wildlife-dependent activities were to receive higher priority status than nonwildlife-dependent uses.

Map 3 Deer Flat National Wildlife Refuge - Lake Lowell Unit Land Status Map



Data Sources: USFWS Refuge Boundary & Land Status Data from USFWS/R1; 2011 NAIP Imagery from USDA
File: 12-005-5 Map Date: 05/16/2012

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- A Master Plan written around 1980 boasts a wide variety of crops being grown around the Refuge including cereal grains, and corn. The planners go on to express concerns about the conversion of agricultural land to urban areas, and of wildlands to agricultural lands (USFWS 1980). The planners also imply that Refuge visitation would increase because high gasoline prices would spur users to stay close to home.
- A Refuge Management Plan was also signed in 1990 and had a draft update in 1996 (USFWS 1996). This plan emphasizes the Refuge's importance to wildlife and wildlife-dependent recreation. This plan states the need for clearly defined jurisdiction over recreational activities.

1.8.2 Relationship of Refuge CCP to Other Ecosystem Planning and Assessment Efforts

A brief summary of the major regional conservation plans and efforts we considered in the development of this CCP and the priority resources of concern (see Appendix E) follows.

Landscape Conservation Cooperatives. Interior Secretary Ken Salazar directed Department of the Interior bureaus to initiate the development of the Landscape Conservation Cooperative (LCC) network as a response to landscape-scale stressors, including climate change (Secretarial Order Number 3289, September 2009). The LCC network is composed of 22 individual LCCs, and Deer Flat Refuge lies within both the Great Basin LCC and the Great Northern LCC. These LCCs are public-private partnerships composed of States, Tribes, Federal agencies, nongovernmental organizations, universities, and others. The LCCs develop science-based conservation plans across a large geographic area to address environmental challenges and ensure the sustainability of America's land, water, wildlife, and cultural resources (www.fws.gov/science/shc/lcc.html). Through this CCP, we will identify opportunities to obtain and share survey and research data on wildlife, habitat, and biological processes.

Idaho Comprehensive Wildlife Conservation Strategy (IDFG 2005). In 2001, the U.S. Congress began to appropriate Federal funds through the State Wildlife Grants program to assist states with fish and wildlife conservation efforts. Along with this new funding came the responsibility of each state to develop a comprehensive wildlife conservation strategy (CWCS). IDFG prepared its CWCS in 2005 to coordinate the efforts of partners working toward the conservation of wildlife and wildlife habitats across the state. The aim of Idaho's CWCS is to provide a common framework that will enable conservation partners to jointly implement a long-term approach for the benefit of species of greatest conservation need (SGCN). The CWCS identifies 229 SGCN (103 invertebrates, and 126 vertebrates) and associated habitats; provides an ecological, habitat-based framework to aid in the conservation and management of SGCN; recommends actions to improve the population status and habitat conditions of SGCN; and describes an approach for long-term monitoring to assess the success of conservation efforts and to integrate new information as it becomes available. The CWCS "promotes proactive conservation to ensure cost-effective solutions instead of reactive measures enacted in the face of imminent losses" (IDFG 2005).

Pacific Flyway Management Plan for the Pacific Population of Western Canada Goose (Subcommittee on Pacific Population of Canada Geese [SPPCG] 2000). This plan provides guidelines to wildlife agencies responsible for the management of the Pacific population of Western Canada geese. The plan aims to maintain the distribution of this population while optimizing recreational opportunities and controlling depredation and nuisance problems. The plan provides

several management recommendations, including population monitoring, harvest management, and research.

North American Waterfowl Management Plan* and *Coordinated Implementation Plan for Bird Conservation in Idaho, Version 2005 (North American Waterfowl Management Plan Committee [NAWMPC] 2004 and Intermountain West Joint Venture [IWJV] 2005, respectively). *The North American Waterfowl Management Plan* is an international action plan, signed by the United States, Canada, and Mexico, to conserve migratory birds throughout the continent. The goal of the plan is to return waterfowl populations to their 1970s levels by conserving wetland and upland habitats. Transforming the goals into on-the-ground actions is accomplished through partnerships called joint ventures. Joint ventures are made up of individuals, corporations, conservation organizations, and local, State, Provincial, and Federal agencies. Habitat joint ventures restore and enhance wetlands and associated upland habitats.

Partners in Flight, North American Landbird Conservation Plan (Rich et al. 2004). *The North American Landbird Conservation Plan* gives Partners in Flight Watch List status to birds that it deems are threatened by loss or degradation in habitat, and small or declining populations or species distribution. It also identifies "stewardship species" that should be considered in conservation planning due to their representation of large avifaunal biomes. The plan identifies research and monitoring needs and attempts to create estimates of landbird species populations.

Idaho Bird Conservation Plan, Version 1 (Idaho Partners in Flight 2000). *The Idaho Bird Conservation Plan* focuses on restoring and maintaining high-priority habitats with the goal of maintaining healthy communities of priority bird species. Three of the four priority habitats identified by the plan (i.e., riparian, nonriverine wetlands, and sagebrush shrublands) can be found on Deer Flat NWR. The plan provides strategies for meeting habitat and population objectives for these priority species and habitats.

Intermountain West Regional Shorebird Plan, Version 1 (Oring et al. 2000). *The United States Shorebird Conservation Plan* (Brown et al. 2001) includes 11 regional plans reflecting major shorebird flyways and habitats within the United States. The Intermountain West Regional Working Group was formed under the auspices of the national plan to formulate shorebird management goals for the Intermountain West. The purpose of this management plan is to address shorebird management needs on a regional basis while considering both Pacific Flyway and national levels of need.

The Intermountain West Regional Shorebird Plan (Oring et al. 2000) notes that perhaps a million shorebirds breed in the Intermountain West and millions more migrate through the area each year. The plan recognizes that finding ample high-quality fresh water will be the greatest challenge faced by shorebirds in the Intermountain West in the future. The regional plan articulates seven goals, plus associated objectives and strategies related to habitat management, monitoring and assessment, research, outreach and planning. The planning goal includes objectives to coordinate shorebird planning and projects with other migratory bird initiatives and specifically with the Intermountain West Joint Venture. The Intermountain West Regional Shorebird Plan identifies 11 shorebird species that regularly breed in the region, as well as 23 additional species that are annual migrants.

North American Waterbird Conservation Plan* and *Intermountain West Waterbird Conservation Plan (Kushlan et al. 2002 and Ivey and Herziger 2006, respectively). *The North American Waterbird Conservation Plan* attempts to "sustain the distribution, diversity, and abundance of populations and

habitats of breeding, migratory, and nonbreeding waterbirds . . . throughout the lands and waters of North America" (Kushlan et al. 2002). It includes goals for species and populations, habitats, education and information, and coordination and integration. One strategy under the coordination and integration goal seeks to develop regional step-down plans.

The Intermountain West Waterbird Conservation Plan (Ivey and Herziger 2006). *The Intermountain West Waterbird Conservation Plan* is one of several regional step-down plans designed to implement the *North American Waterbird Conservation Plan*. Waterbirds are wetland-dependent species including both colonial breeders (e.g., gulls, terns, most grebes, cormorants, herons, egrets, ibis, and pelicans), and solitary nesting marshbirds (e.g., cranes, rails, coots, bitterns, and loons). Shorebirds and waterfowl are covered by other bird conservation initiatives and are therefore excluded from this plan. The goal of this plan is to maintain healthy populations, distributions, and habitats of waterbirds throughout the Intermountain West region.

Columbia Plateau Ecoregional Assessment (Andelman et al. 1999). *The Columbia Plateau Ecoregional Assessment* attempts to identify an approach to maintaining long-term viability of imperiled species and natural systems on an ecosystem level. The assessment recognizes that management actions are often needed that would cross agency, governmental, and geographical boundaries. The assessment ties together site-specific conservation actions to a regional scale to help effect change on a larger scale. The conservation goal for the Columbia Plateau Ecoregion as set forth by the assessment is "the long-term survival of all viable native species and community types in the ecoregion" (Andelman et al. 1999).

1.9 Planning and Issue Identification

1.9.1 Planning Process Overview

A core planning team identified priority Refuge species, a work plan, a communication and outreach plan, and preliminary issues to be addressed in the CCP. See Appendix J for a list of core planning team members.

To ensure that the CCP/EIS was developed collaboratively with the larger community of scientists, land managers, and partners, valuable input was sought from an extended team whose members participated in wildlife habitats and public use reviews during preplanning; this extended team also provided technical expertise, assisted with data collection, and reviewed and provided feedback during development of the Final CCP/EIS. The extended team consisted of various professionals from other agencies and divisions within the Service. See Appendix J for a list of extended team members.

Early in the planning process, the core planning team identified several priority resources of concern for the Refuge (see Chapter 4 and Appendix E) based on a thorough review of regional plans and input from extended team members during a wildlife and habitat review in 2008. Wildlife and habitat goals and objectives were designed around the habitat requirements of species designated as priority resources of concern. The analytical framework for identifying the resources of concern and for devising appropriate conservation objectives and strategies was based on the Service's draft *Identifying Resources of Concern and Management Priorities for a Refuge: A Handbook* (USFWS 2009b).

Public use planning centered on developing goals, objectives and strategies around the Refuge System's six priority wildlife-dependent public uses—hunting, fishing, wildlife observation and photography, and environmental education and interpretation—and existing, compatible nonwildlife-dependent public uses, as well as the transportation and infrastructure associated with both types of uses.

Our planning process benefitted from public input, which began in July 2010 with public scoping of issues and opportunities to include in the CCP. During July, August, and September 2010, public comments were solicited through the distribution of planning updates, in our public scoping meetings, and through outreach to stakeholder groups. Public scoping continued in September 2010, when we held public work sessions to generate strategies to use in the creation of CCP/EIS alternatives. In December 2010, a planning update was issued summarizing the public comments we received during public scoping.

In May 2011, a planning update was issued to solicit comments on an interim planning product, our preliminary draft alternatives. The preliminary draft alternatives were created to give the public an idea of the spectrum of alternatives that the Refuge was considering and ask for comments on how to improve these alternatives. Public comments were solicited on the preliminary alternatives through public open houses and outreach to stakeholder groups. In addition, extended team meetings that included representatives from IDFG, the Boise Project Board of Control, Oregon Department of Fish and Wildlife (ODFW), and others, were held in June 2011 to discuss the merits and issues of the preliminary draft alternatives and strategies. In October 2011, a planning update was issued summarizing public comments and the potential revisions to the preliminary draft alternatives resulting from those comments. A more detailed summary of public involvement to date is in Appendix H.

The CCP process facilitates incremental development of the CCP/EIS with public involvement at key steps. An internal draft of the Refuge's CCP/EIS was distributed to extended team reviewers in April 2012 for comments. We considered all comments from the public and extended team during the development and evolution of our alternatives for this Final CCP/EIS. We opened a public comment period of 45 days or more on the Draft CCP/EIS, and we modified Alternative 2, the Preferred Alternative, in the Final CCP/EIS based on the input we receive from the public and from other agencies and organizations. Thirty days after the Final CCP/EIS has been released to the public, the Regional Director for the Service's Pacific Region can select an alternative for implementation. We will document the decision in a Record of Decision, and announce it in a Federal Register notice and planning update.

1.9.2 Major Issues to be Addressed in the CCP

The planning team evaluated the issues and concerns raised during public scoping. Issues are defined as matters of controversy, dispute, or general concern over resource management activities, the environment, land uses, or public use activities. Identifying issues to address in the CCP is an important part of the planning process. Issues influenced the types of information we gathered and helped us define alternatives for the CCP. It is the Service's policy to focus planning and analysis on major issues that are within the Refuge's jurisdiction and that have a positive or negative effect on the Refuge's resources. The following issues, concerns, and opportunities were considered in the development of the Final CCP/EIS.

1.9.2.1 Wildlife and Habitat Management

- **How should Refuge habitats be managed for resident and migratory wildlife species?** Other than invasive species removal and post-wildfire restoration activities, there has been minimal habitat manipulation at the Lake Lowell Unit in recent years. We identify opportunities to improve nesting and resting habitats for migratory birds in the Final CCP/EIS, through habitat adjustments and more efficient and effective methods of invasive species removal across the Refuge. There may be opportunities in the future to partner with Reclamation and the Board of Control to accomplish these activities.

- **Which habitats should the Refuge consider priorities for active management?** Recent habitat management projects have been focused on the Lake Lowell Unit, with very little occurring on the Snake River Islands Unit. Given the importance of healthy riparian habitats along the river corridor, the possibility of shifting habitat management priorities to the Snake River Islands Unit is analyzed in the Final CCP/EIS, as are strategies that would increase the efficiency and effectiveness of our island habitat management.

- **What are our biological research and monitoring priorities?** In order to better manage Refuge habitats for the good of wildlife, we need to gain a better understanding of how:
    - Wildlife use the Refuge;
    - Wildlife/human interactions affect wildlife use of the Refuge;
    - Wildlife use patterns change over time; and
    - Environmental factors (e.g., contaminants) impact wildlife.

- **What is the Refuge's role in improving water quality?** Although water quality issues are not within the management authority of the Refuge, contaminants in the lake may have an impact on wildlife resources and recreational opportunities at the Refuge. Before looking at ways to reduce contaminants, we must first identify and quantify their presence, and assess their impacts on the public and wildlife. Once there is a better understanding of the contaminants issue, the Refuge will be able to work with partners to address the problem and look for solutions.

- **How does the Refuge address the issue of invasive and undesirable nonnative plant and animal species?** Controlling invasive plant species on the Refuge is challenging. Roads and trails often function as conduits for movement of plant species, including nonnative, invasive species. Propagules from invasive plants spread to new areas easily from clothing or equipment. Once established, invasive plants can out-compete native plants, thereby altering habitats and indirectly impacting wildlife.

  Some of the first Refuge Managers documented issues with feral cats and dogs on the Refuge. This problem has expanded as the human population near the Refuge continues to increase. These invasive animals can negatively impact wildlife in many ways (e.g., destroying nests and killing or chasing wildlife). Carp are another species that affect wildlife by reducing water quality, destroying habitat, and feeding on smaller fish and fish eggs. What strategies would efficiently and effectively control invasive and undesirable nonnative species?

1.9.2.2 Public Use Management

- **How can the Refuge provide more quality opportunities for wildlife-dependent recreation to visitors of differing abilities without creating an undesirable level of disturbance to wildlife and habitats?** Refuges are tasked with providing hunting, fishing, wildlife observation and photography, and environmental education and interpretation opportunities for the public, without negatively impacting the purpose of the Refuge (i.e., refuge and breeding grounds for migratory birds and other wildlife). Regional populations and Refuge visitation have increased substantially in recent years. Increased visitation is likely to increase wildlife disturbance, possibly to levels that may alter wildlife movements, impact productivity, and reduce available food resources. In the CCP we identify ways to increase the quality of and opportunities for these wildlife-dependent activities without increasing disturbance to an unacceptable level. We also identify ways to increase Refuge accessibility to wildlife-dependent activities for people of all levels of physical ability.

- **Can the Refuge provide opportunities for nonwildlife-dependent recreation in a way that does not negatively impact wildlife, habitats, and visitors engaging in wildlife-dependent recreation and education?** The population surrounding the Refuge and visitation to the Refuge has increased over time. This has resulted in greater demand for nonwildlife-dependent recreation such as high-speed boating, jogging, bicycling, and other activities, which increases the potential for impacts to wildlife, habitats, and wildlife-dependent visitors. If nonwildlife-dependent uses are to continue on the Refuge, we must balance these uses with protecting wildlife and habitat and providing quality wildlife-dependent uses.

- **How can the Refuge increase the quality of its waterfowl and upland hunts?** Some hunters voiced concerns in the past about the crowded conditions surrounding the waterfowl hunt at Lake Lowell Unit. There is also question as to whether or not the Refuge can provide a quality upland hunt opportunity. Strategies meant to reduce hunter conflict, increase safety, and assess the quality of Refuge hunting opportunities are addressed in the plan.

- **How should limited Refuge resources be allocated between environmental education programs as compared to outreach and interpretation to the general visitor?** Many visitors do not know that they are on a national wildlife refuge or what the purpose of the Refuge is. Would it be better to increase interpretive programs for the general visitor, so they have a better understanding of what a national wildlife refuge is and have an opportunity to experience the Refuge in a new way? Or is it better to continue to focus on structured environmental education programs for children from local schools.

- **How can the Refuge improve safety for its visitors and reduce the amount of illegal activity?** In the past, there were at least two dual-function Refuge Law Enforcement (LE) officers. Currently, the Refuge does not have a Refuge LE officer assigned to it. The Service's Zone LE officer, who is responsible for eastern Oregon, eastern Washington, all of southern Idaho, and northern Nevada, provides LE assistance. Assistance is also provided by the Canyon County Sheriff's Office, the Canyon County Marine Deputies, and IDFG Conservation Officers, but these agencies have their own priorities and obligations. In order to decrease illegal activity without increasing the burden on local law enforcement, the Refuge may need to implement technological solutions such as automatic gates, cameras, and

better lighting. Developing agreements with other law enforcement agencies to enforce Refuge regulations could improve visitor experiences.

1.9.3 Issues outside the Scope of the CCP

Although CCPs are very comprehensive plans, no single plan can cover all issues. The planning team has compiled a list of issues that are currently considered to be outside the scope of this CCP.

- **Deer hunting.** A new Lake Lowell Unit deer hunt was addressed in a recent environmental assessment (USFWS 2011a) and hunt package. The hunt was approved in September 2012 and began in October 2012. Because impacts of the Lake Lowell deer hunt were so recently assessed, the Lake Lowell deer hunt is outside of the scope of the CCP.

- **Development.** Development that reduces habitat, impacts wildlife, or increases pollution outside of the Refuge borders could impact the wildlife and habitats of the Refuge. We may discuss partnering with local entities to identify areas of concern for future development in the CCP, but the Refuge does not have the authority to restrict or direct future county or city development on lands outside the Refuge. Managing development outside the Refuge's boundary is within the management control of city and county governments, not the USFWS.

- **Fisheries management.** Service policy requires us to develop a fisheries management plan. The plan will be developed in close coordination with IDFG.

- **Lake Lowell water levels.** The Refuge received comments expressing concern that using the water in Lake Lowell to meet biological goals and objectives would reduce the amount of water available to local irrigators. The Refuge is an overlay refuge on a Reclamation reservoir, and Reclamation has primary jurisdiction over the manipulation of water levels of Lake Lowell. Through its contracts with Reclamation, the Board of Control has the day-to-day operation and maintenance of project features which directly affects Lake Lowell water levels. Consistent with the executive order that established Deer Flat NWR the Refuge does not have authority to manipulate water levels.

- **Reclamation Zone activities.** The Reclamation Zones are located to the west of the Lower Dam and to the north of the Upper Dam. These areas are within the boundary of the Refuge but are legally managed by Reclamation. Management of all activities in these areas is outside the scope of the CCP.

- **Refuge boundary.** No modifications to the Refuge boundary were considered or are proposed in this Final CCP/EIS. Individual boundary issues are researched as issues arise.

- **Restructuring of priority and nonpriority recreational activities.** Because the concepts of priority/nonpriority and wildlife-dependent/nonwildlife-dependent are found in the National Wildlife Refuge System Administration Act of 1966, as amended, and are a matter of law, making changes to these categories is not within the scope of the CCP.

- **Snake River boating.** The Snake River is considered navigable waters and is not managed by the Service. This issue is not within the jurisdiction of Deer Flat NWR, and therefore it is outside of the scope of the CCP.

- **Snake River water flows.** Water levels on both the Snake River and Lake Lowell are outside of the management control of the Service.

- **Water quality control.** Although water quality is extremely important to the health of the wildlife and habitats of Deer Flat NWR, many of the forces influencing water quality are not within the management control of the USFWS. Refuge staff may partner with other agencies to create solutions to the water quality problem and assist in implementation of the total maximum daily load plan proposed by the Department of Environmental Quality.

1.10 Refuge Goals

Refuge management goals are descriptive, open-ended, and often broad statements of desired future conditions that convey a purpose, but they do not define measurable units. Goals must support the Refuge vision and describe the desired end result.

1.10.1 Wildlife and Habitat Goals

Goal 1: Protect, maintain, and enhance viable mudflat, emergent–bed, and open-water habitats associated with Lake Lowell to benefit migratory birds and other wildlife.

Goal 2: Protect, maintain, and enhance riparian forest, benefiting migratory birds and other riparian-dependent species.

Goal 3: Protect, maintain, and enhance nonlake wetland habitats for the benefit of migratory birds and other wildlife.

Goal 4: Protect, maintain, and enhance shrub-steppe habitats characteristic of the historical Columbia Basin.

Goal 5: Protect, maintain and enhance managed grasslands and agricultural crops to support migrating waterfowl as well as resident wildlife.

Goal 6: Gather sufficient scientific information to guide responsible adaptive management decisions for the Refuge's trust resources.

1.10.2 Public Use and Cultural Resources Goals

Goal 1: Visitors of all ages will enjoy native wildlife and increase their understanding and appreciation of the importance of the Refuge as wildlife habitat.

Goal 2: Hunters of all ages and abilities will enjoy a family-friendly, safe, quality hunt that minimally impacts Refuge habitats and wildlife and increases their understanding and appreciation of the importance of Deer Flat NWR as wildlife habitat.

Goal 3: Anglers will enjoy a family-friendly, quality, accessible fishing opportunity that minimally impacts Refuge habitats and wildlife and increases their understanding and appreciation of the importance of Deer Flat NWR as wildlife habitat.

Goal 4: Students, teachers, and Refuge visitors will understand the biology and management of the Refuge and the mission of the National Wildlife Refuge System and will demonstrate stewardship of the Refuge and other wildlife habitats.

Goal 5: Visitors will have limited impacts to wildlife, feel safe during their visit, and understand Refuge regulations and how they help protect wildlife and wildlife habitat as well as other visitors.

Goal 6: The Refuge will initiate and nurture relationships and develop cooperative opportunities to nurture stewardship of the Refuge and instill in others an understanding and appreciation of the importance of Deer Flat NWR as wildlife habitat.

Goal 7: The Refuge will protect and manage its cultural resources and look for ways to gain new understanding of the history and cultural resources of both the Lake Lowell Unit and the Snake River Islands Unit.

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