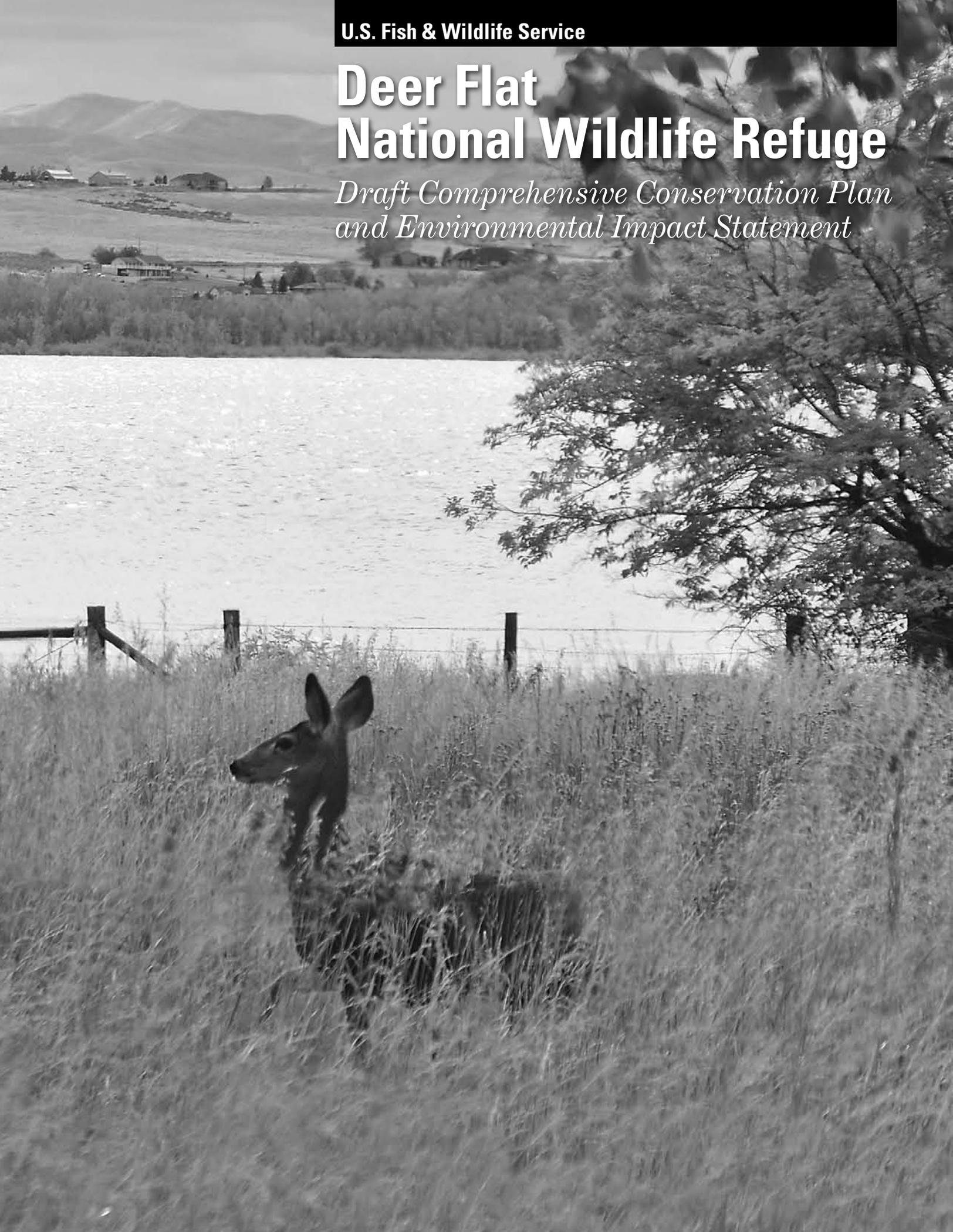


U.S. Fish & Wildlife Service

# Deer Flat National Wildlife Refuge

*Draft Comprehensive Conservation Plan  
and Environmental Impact Statement*



# A Vision of Conservation



Deer Flat National Wildlife Refuge is enjoyed, appreciated, protected, and treasured as a place where wildlife comes first. The public actively supports and advocates for the Refuge purpose and programs. Residents of the Treasure Valley value the oases of wildlife habitat in their backyard, both at Lake Lowell and the Snake River Islands. The clean, clear waters and lush riparian landscapes of Lake Lowell and the Snake River Islands provide nesting, resting, and feeding habitat for spectacular concentrations of migratory birds and other wildlife. Reductions in disturbance to important nesting, breeding, resting and feeding areas allow wildlife in all Refuge habitats to successfully produce and raise their young thereby sustaining wildlife populations for future generations of Americans to enjoy. The removal of invasive and/or undesirable plant and animal species on the islands of the Snake River and at Lake Lowell provides habitats where songbirds, nesting waterfowl and colonial waterbirds, and native mammals thrive. Habitat goals are met without impacts to the irrigation resources of Lake Lowell.

The Refuge is a place where all visitors are able to enjoy and connect with nature and realize the value of wildlife and habitats. Staff and volunteers share their love of the Refuge and its resources with visitors. In addition to being a destination for hunting, fishing, wildlife photography and observation, children and adults learn in the outdoor “living classroom” that the Refuge provides. The Refuge also provides for other recreational uses that allow people to enjoy the outdoors without impacting wildlife and habitats. All public use opportunities maintain the integrity of the wildlife resources, instill in visitors the importance of protected open spaces, and provide memorable outdoor experiences for present and future generations of Americans.

*Comprehensive Conservation Plans provide long-term guidance for management decisions and set forth goals, objectives, and strategies needed to accomplish refuge purposes and identify the Service's best estimate of future needs. These plans detail program planning levels that are sometimes substantially above current budget allocations and, as such, are primarily for Service strategic planning and program prioritization purposes. The plans do not constitute a commitment for staffing increases, operational and maintenance increases, or funding for future land acquisition.*

*The refuge headquarters and visitor center rests on the shore of Lake Lowell.*  
Addison Mohler/USFWS

**Deer Flat National Wildlife Refuge**  
**Draft Comprehensive Conservation Plan and Environmental Impact Statement**

Canyon, Payette, Owyhee, and Washington Counties, Idaho, and Malheur County, Oregon

---

**Lead Agency:** U.S. Department of the Interior, Fish and Wildlife Service, Pacific Region

**Cooperating Agency:** U.S. Department of the Interior, Bureau of Reclamation, Snake River Area Office

**Responsible Official:** Robyn Thorson, Regional Director, U.S. Fish and Wildlife Service, Pacific Region

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**Abstract:** The Fish and Wildlife Service is required to manage units of the National Wildlife Refuge System in accordance with a comprehensive conservation plan (CCP). This is the Draft CCP and Environmental Impact Statement (EIS) for Deer Flat National Wildlife Refuge (Refuge); in it, we address issues and opportunities; examine potential impacts on natural and cultural resources; and analyze the following range of alternatives, as required by the National Environmental Policy Act.

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**Alternative 1** (status quo alternative). Under Alternative 1, current wildlife, habitat, and public use management would continue. Invasive species control and limited restoration would be our habitat management focus. The no-wake zone on Lake Lowell would continue, and the lake would be closed from October 1 to April 14 for migratory birds. Compatible priority and other public uses would continue. No additional trail or lake access would occur. Limited invasive species control and restoration would occur on the Snake River Islands Unit, which would be open from June 1 to January 31 for free-roam activities and shoreline fishing.

**Alternative 2** (Preferred Alternative). We would protect Lake Lowell's shoreline feeding and nesting sites for wintering and migratory birds under Alternative 2 by closing the lake from October 1 to April 14, establishing a 200-yard no-wake zone on the south side and in the Narrows, and expanding the southeast no-wake zone to Gotts Point. Nearly all existing recreation would continue; fishing and wildlife interpretation would be emphasized, and with increased law enforcement, Gotts Point would open to vehicles. We would increase wildlife inventory and monitoring (IM), invasive species control, and restoration on the Snake River Islands Unit, and we would adjust closures to protect nesting and wading birds. Wildlife observation and hunting for deer, upland species, and waterfowl would be allowed. Most islands would be open for shoreline fishing and free-roam activities from June 15 to January 31; heron- and gull-nesting islands would be open from July 1 to January 31.

**Alternative 3.** Under Alternative 3, we would protect Lake Lowell's wildlife resources by closing emergent plant beds in Murphy's Neck and from Parking Lots 3 to 8; closing the lake seasonally for wintering/migrating birds; closing areas within 500 yards of grebe-nesting sites; and implementing a seasonal 100-yard shoreline closure from Murphy's Neck to the Narrows, a 200-yard closure and no-wake zone in the southwest area, and a no-wake zone in the East Pool. Boating season would end earlier, on September 20, for a youth hunt. Upland bird and controlled waterfowl hunting would be allowed, horseback riding and dog walking would not, and bicycling would be limited. Wildlife IM, invasive species control, and restoration would increase on the Snake River Islands Unit; closure dates would change to protect birds. Wildlife observation and hunting would occur on the islands, which would be open from June 15 to January 31 for fishing and free-roam activities. Heron- and gull-nesting islands would be open from July 1 to January 31.

**Alternative 4.** Alternative 4 would provide the most protection for Lakes Lowell's wildlife resources by restricting boating to no-wake speeds only and closing the southeast end to public use. The lake would continue to be closed from October 1 to April 14, and portions of the Refuge would be closed to the public year-round. No horseback riding, dog walking, or bicycling would occur. Upland game hunting would not be allowed; however, waterfowl hunting would be allowed on the south side from Parking Lots 1 to 8. Wildlife IM, invasive species control, and restoration would increase on the Snake River Islands Unit, and closure dates would be adjusted to protect nesting and wading birds. Prescribed fire and aerial application of herbicide and/or seed may be used. Wildlife observation and hunting for deer, upland species, and waterfowl would occur on the islands, which would be open for fishing and free-roam activities from June 15 to January 31. Heron- and gull-nesting islands would be open from July 1 to January 31.

**Public Comments:** Public comments are due to Deer Flat National Wildlife Refuge by May 15, 2013.



**Deer Flat  
National Wildlife Refuge  
Draft Comprehensive Conservation Plan  
and  
Environmental Impact Statement**

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## Table of Contents

<b>Executive Summary .....</b>	<b>i</b>
<b>Chapter 1 Introduction and Background .....</b>	<b>1-1</b>
1.1 Introduction .....	1-1
1.2 History of the Landscape.....	1-1
1.3 Biological Significance of the Refuge.....	1-2
1.4 Proposed Action .....	1-7
1.5 Purpose and Need for Action .....	1-8
1.6 Legal and Policy Guidance.....	1-9
1.6.1 The U.S. Fish and Wildlife Service .....	1-9
1.6.2 National Wildlife Refuge System .....	1-9
1.6.3 Other Laws and Mandates .....	1-11
1.7 Refuge Establishment and Purposes.....	1-11
1.7.1 Legal Significance of the Refuge Purpose.....	1-11
1.7.2 History of Refuge Establishment and Purposes.....	1-12
1.7.3 Land Status and Ownership .....	1-13
1.7.4 Special Designation Lands.....	1-13
1.8 Relationship to Ecosystem Management Efforts .....	1-14
1.8.1 Relationship to Previous Refuge Plans.....	1-14
1.8.2 Relationship of Refuge CCP to Other Ecosystem Planning and Assessment Efforts.....	1-19
1.9 Planning and Issue Identification .....	1-21
1.9.1 Planning Process Overview .....	1-21
1.9.2 Major Issues to be Addressed in the CCP.....	1-22
1.9.3 Issues outside the Scope of the CCP.....	1-24
1.10 Refuge Goals .....	1-26
1.10.1 Wildlife and Habitat Goals .....	1-26
1.10.2 Public Use and Cultural Resources Goals .....	1-26
<b>Chapter 2 Alternatives, Goals, Objectives, and Strategies.....</b>	<b>2-1</b>
2.1 Considerations in Alternative Designs .....	2-1
2.2 Actions/Alternatives Considered but Dismissed .....	2-1
2.3 Alternatives .....	2-3
2.3.1 Features Common to All Alternatives .....	2-3
2.3.2 Features Common to All Action Alternatives (Alternatives 2-4).....	2-10
2.3.3 Alternative Descriptions .....	2-12
2.4 Wildlife and Habitat Goals, Objectives, and Strategies .....	2-25
2.5 Public Use and Cultural Resource Goals, Objectives, and Strategies .....	2-51
<b>Chapter 3 Physical Environment .....</b>	<b>3-1</b>
3.1 Climate .....	3-1
3.1.1 General Climate.....	3-1
3.1.2 Climate Change .....	3-3
3.2 Hydrology.....	3-11
3.2.1 Lake Lowell .....	3-11
3.2.2 Snake River.....	3-17
3.3 Topography and Bathymetry.....	3-18
3.3.1 Lake Lowell Unit.....	3-19
3.3.2 Snake River Islands Unit .....	3-19

3.4	Geology and Geomorphology .....	3-19
3.4.1	Lake Lowell Unit .....	3-19
3.4.2	Snake River Islands Unit .....	3-20
3.5	Soils .....	3-21
3.5.1	Lake Lowell Unit .....	3-21
3.5.2	Snake River Islands Unit .....	3-26
3.6	Fire .....	3-27
3.7	Air Quality .....	3-28
3.8	Visual Quality .....	3-29
3.9	Water Quality .....	3-30
3.9.1	Lake Lowell .....	3-32
3.9.2	Snake River .....	3-35
3.10	Surrounding Land Uses .....	3-36
3.10.1	Lake Lowell Unit .....	3-36
3.10.2	Snake River Islands Unit .....	3-38
3.11	Environmental Contaminants .....	3-38
3.11.1	Lake Lowell Unit .....	3-38
3.11.2	Snake River Islands Unit .....	3-39
<b>Chapter 4</b>	<b>Biological Environment.....</b>	<b>4-1</b>
4.1	Biological Integrity, Diversity, and Environmental Health.....	4-1
4.1.1	Snake River Dams and Altered Hydrology .....	4-4
4.1.2	Influx of Invasive Species.....	4-5
4.1.3	Altered Fire Regime .....	4-6
4.2	Selection of Priority Resources of Concern .....	4-7
4.2.1	Analysis of Priority Resources of Concerns .....	4-7
4.3	Habitat Types .....	4-10
4.3.1	Emergent Wetlands.....	4-10
4.3.2	Shoreline Mudflats: Lake Lowell .....	4-12
4.3.3	Open Water: Lake Lowell.....	4-13
4.3.4	Riparian Forests: Lake Lowell and Snake River Islands .....	4-14
4.3.5	Shrub-steppe: Lake Lowell and Snake River Islands .....	4-16
4.3.6	Agricultural Pastures and Croplands .....	4-19
4.4	Major Species Groups .....	4-20
4.4.1	Fish .....	4-20
4.4.2	Birds.....	4-20
4.4.3	Mammals .....	4-23
4.4.4	Reptiles and Amphibians .....	4-23
4.4.5	Invertebrates .....	4-24
4.5	Threatened, Endangered, and Sensitive Species .....	4-24
4.6	Invasive and Nuisance Species.....	4-30
4.6.1	Plants .....	4-30
4.6.2	Animals.....	4-30
4.7	Wildlife and Habitat Research, Inventory, and Monitoring .....	4-33
<b>Chapter 5</b>	<b>Human Environment.....</b>	<b>5-1</b>
5.1	Cultural Resources .....	5-1
5.1.1	Native American Cultural Landscape.....	5-1
5.1.2	Historic Landscape .....	5-1
5.1.3	Archaeological Sites and Surveys.....	5-3
5.1.4	Threats to Cultural Resources.....	5-10

5.2	Refuge Facilities.....	5-10
5.2.1	Fences and Signs.....	5-10
5.2.2	Roads, Parking Areas, and Access Points.....	5-11
5.2.3	Trails.....	5-12
5.2.4	Other Facilities Listed by Refuge Area.....	5-13
5.3	Public Use Overview.....	5-17
5.3.1	Legal Mandates Involving Public Uses on Refuges.....	5-17
5.3.2	General Visitation Information.....	5-18
5.3.3	General Access.....	5-20
5.4	Wildlife-dependent Public Uses.....	5-21
5.4.1	Hunting.....	5-21
5.4.2	Fishing.....	5-22
5.4.3	Wildlife Observation and Photography.....	5-24
5.4.4	Environmental Education.....	5-24
5.4.5	Environmental Interpretation.....	5-25
5.5	Other Refuge Uses.....	5-26
5.5.1	History of Nonwildlife-dependent Uses.....	5-26
5.5.2	Authorization of Nonwildlife-dependent Recreation.....	5-27
5.5.3	Boating and Other Water Sports.....	5-27
5.5.4	Walking with Pets, Jogging, Biking, and Horseback Riding.....	5-29
5.5.5	Swimming and Sunbathing.....	5-29
5.5.6	Geocaching.....	5-30
5.5.7	Winter Sports.....	5-30
5.5.8	Picnicking and Events.....	5-31
5.6	Illegal Uses.....	5-31
5.6.1	North Side Recreation Area.....	5-31
5.6.2	East Upper Dam Boat Launch.....	5-32
5.6.3	Lower Dam Recreation Area.....	5-32
5.6.4	South Side Recreation Area.....	5-32
5.6.5	East Side Recreation Area.....	5-32
5.6.6	Gotts Point.....	5-32
5.6.7	Lake Lowell.....	5-33
5.6.8	Snake River Islands Unit.....	5-33
5.6.9	General.....	5-33
5.7	Area Outdoor Recreational Opportunities and Trends.....	5-34
5.7.1	Nearby Recreational Opportunities.....	5-34
5.7.2	Outdoor Recreation Rates and Trends.....	5-35
5.8	Social/Economic Environment.....	5-36
5.8.1	Regional Economic Setting.....	5-36
5.8.2	Population and Density.....	5-37
5.8.3	Gender, Age, and Racial Composition.....	5-38
5.8.4	Economic Conditions and Trends.....	5-38
5.8.5	Land Use and Ownership Changes Surrounding Refuge Lands.....	5-40
<b>Chapter 6</b>	<b>Environmental Consequences.....</b>	<b>6-1</b>
6.1	Introduction to Effects.....	6-1
6.2	Effects Common to All Alternatives.....	6-7
6.2.1	Integrated Pest Management.....	6-7
6.3	Effects to the Physical Environment.....	6-7
6.3.1	Effects to Hydrology.....	6-7
6.3.2	Effects to Water Quality.....	6-8

6.3.3	Effects to Air Quality.....	6-9
6.3.4	Effects to Visual Quality .....	6-11
6.4	Effects to Wildlife and Habitats .....	6-12
6.4.1	Effects to Open-water Habitat and Associated Wildlife: Lake Lowell .....	6-12
6.4.2	Effects to Emergent-bed Habitat and Associated Wildlife: Lake Lowell.....	6-20
6.4.3	Effects to Riparian Habitat and Associated Species .....	6-24
6.4.4	Effects to Shrub-steppe Habitat and Associated Species.....	6-28
6.4.5	Effects to Mudflats and Associated Species: Lake Lowell.....	6-32
6.4.6	Additional Effects to Waterfowl.....	6-35
6.4.7	Effects to Threatened and Endangered Species .....	6-38
6.5	Effects to Public Uses.....	6-39
6.5.1	Estimating Annual Recreation Visits.....	6-39
6.5.2	Projected User Numbers in 15 Years.....	6-39
6.5.3	Effects from Wildlife and Habitat Management Actions on Recreational Opportunities and Cultural Resources .....	6-44
6.5.4	Effects from Public Use and Public Use Management Actions on Quality Waterfowl Hunting .....	6-45
6.5.5	Effects from Public Use and Public Use Management Actions on Quality Upland Game Hunting.....	6-47
6.5.6	Effects from Public Use and Public Use Management Actions on Quality Big Game Hunting .....	6-48
6.5.7	Effects from Public Use and Public Use Management Actions on Quality Fishing.....	6-49
6.5.8	Effects from Public Use and Public Use Management Actions on Quality Wildlife Observation and Photography.....	6-52
6.5.9	Effects from Public Use and Public Use Management Actions on Quality Environmental Education .....	6-54
6.5.10	Effects from Public Use and Public Use Management Actions on Quality Interpretation.....	6-56
6.5.11	Effects from Public Use and Public Use Management Actions on Water-based Nonwildlife-dependent Recreation .....	6-57
6.5.12	Effects from Public Use and Public Use Management Actions on Land-based Nonwildlife-dependent Recreation .....	6-59
6.5.13	Effects from Public Use and Public Use Management on Cultural Resources .....	6-61
6.5.14	Amount of Illegal Use .....	6-63
6.5.15	Environmental Justice.....	6-63
6.6	Economic Effects .....	6-63
6.6.1	Methods for a Regional Economic Impact Analysis .....	6-63
6.6.2	Impacts from Revenue Sharing.....	6-65
6.6.3	Impacts from Public Use and Access Management.....	6-65
6.6.4	Impacts from Refuge Administration .....	6-72
6.6.5	Summary of Economic Impacts for Alternative 1 (Status Quo).....	6-74
6.6.6	Summary of Economic Impacts for Alternative 2 (Preferred Alternative).....	6-74
6.6.7	Summary of Economic Impacts for Alternative 3 .....	6-75
6.6.8	Summary of Economic Impacts for Alternative 4 .....	6-76
6.7	Cumulative Effects .....	6-77
6.7.1	Potential Effects from Climate Change .....	6-78
6.7.2	Effects from Reasonably Foreseeable Events and Activities from Others .....	6-78
6.8	Other Effects.....	6-81
6.8.1	Potential Impacts on Adjacent Lands and their Associated Natural Resources .....	6-81
6.8.2	Potential Impacts to Nearby Residents .....	6-81

**Appendices**

Appendix A. Appropriate Use Determinations..... A-1  
 Appendix B. Compatibility Determinations..... B-1  
 Appendix C. Implementation ..... C-1  
 Appendix D. Wilderness Review ..... D-1  
 Appendix E. Biological Resources of Concern..... E-1  
 Appendix F. Statement of Compliance ..... F-1  
 Appendix G. Integrated Pest Management (IPM) Program..... G-1  
 Appendix H. Public Involvement ..... H-1  
 Appendix I. Refuge Establishment History..... I-1  
 Appendix J. Contributors ..... J-1  
 Appendix K. Fire Management Plan ..... K-1  
 Appendix L. Lake Use Study ..... L-1  
 Appendix M. Regional Economic Impacts of Current and Proposed Management Alternatives for  
 Deer Flat National Wildlife Refuge ..... M-1  
 Appendix N. Acronyms and Abbreviations..... N-1  
 Appendix O. Glossary ..... O-1  
 Appendix P. References Cited ..... P-1

**Maps**

Map 1. Regional Context ..... 1-3  
 Map 2. Deer Flat National Wildlife Refuge and Vicinity ..... 1-5  
 Map 3. Lake Lowell Unit Land Status Map..... 1-17  
 Map 4. Alternative 1 (Status Quo)..... 2-77  
 Map 5. Alternative 2 (Preferred)..... 2-79  
 Map 6. Alternative 2 (Preferred) Trails Map Index ..... 2-81  
 Map 7. Alternative 2 (Preferred) Trails Map Inset Maps..... 2-83  
 Map 8. Alternative 3 ..... 2-85  
 Map 9. Alternative 4 ..... 2-87  
 Map 10. Lake Lowell Unit with Various Lake Levels..... 3-15  
 Map 11. Lake Lowell Unit Soils Map..... 3-23  
 Map 12. Lake Lowell Unit Habitat Map..... 4-35  
 Map 13. Snake River Islands Unit Habitat Map ..... 4-37  
 Map 14. Lake Lowell Unit Current Public Use Facilities Map ..... 5-15

**Figures**

Figure 3-1. Mean and Distribution of Monthly Temperature (top plot) and Precipitation (bottom  
 plot) for the Nampa, Idaho USHCN Station for the Period 1981 to 2010 ..... 3-2  
 Figure 3-2. Global Average Temperature and CO<sub>2</sub> Concentration from 1880 to 2008 ..... 3-5  
 Figure 3-3. Trends in Annual Temperature or Precipitation from 1920 to 2000 ..... 3-6  
 Figure 3-4. Trends in April 1 Snow Water Equivalent in the Western United States from 1950 to  
 1997..... 3-6  
 Figure 3-5. Observed Spring Pulse of Snowmelt-generated Streamflow for Two High (a and b) and  
 Two Mid-elevation (c and d) Pacific Northwest Streams, Illustrating the Much  
 Greater Advance in Timing in the Mid-elevation Streams ..... 3-7  
 Figure 3-6. Trend in Water Year Average Temperature for Nampa, Idaho, from 1925 to 2010..... 3-8  
 Figure 3-7. Simulated Temperature Change (top panel) and Percent Precipitation Change (bottom  
 panel) in the Pacific Northwest from Twentieth and Twenty-first Century Global  
 Climate Model Simulations..... 3-9  
 Figure 3-8. Lake Lowell Inlets and Outlets ..... 3-12  
 Figure 3-9. Lower Boise River Subbasin..... 3-13

Figure 3-10. Lake Lowell Average Monthly Water Storage (1954-2009) ..... 3-14  
 Figure 4-1. Snake River Upper Middle Subbasin Historical (circa 1850) Wildlife Habitat Types ..... 4-2  
 Figure 4-2. Snake River Upper Middle Subbasin 1999 Wildlife Habitat Types ..... 4-3  
 Figure 4-3. Hotspots for Rarity/Endemism and Biodiversity in the Columbia Interior Basin..... 4-4  
 Figure 4-4. Changes in Fire Regimes in the Columbia Interior Basin..... 4-7  
 Figure 4-5. Sagebrush Fragmentation in the Western United States ..... 4-18

**Tables**

Table 1-1. Land Ownership Status..... 1-13  
 Table 1-2. Acquisition Authorities..... 1-13  
 Table 2-1. Summary of Alternatives by Issue..... 2-22  
 Table 3-1. Average Prevailing Wind Speed and Direction at Caldwell Airport..... 3-3  
 Table 3-2. Top 10 Warmest Years in the Instrumental Record from 1880 to 2010..... 3-5  
 Table 3-3. Projected Decrease in Snowpack..... 3-10  
 Table 3-4. Average Annual Measured Inflows to Lake Lowell..... 3-11  
 Table 3-5. Average Annual Measured Outflows from Lake Lowell ..... 3-12  
 Table 3-6. Lake Lowell Area and Capacity ..... 3-17  
 Table 3-7. Deer Flat Refuge Water Rights ..... 3-17  
 Table 3-8. Mean Monthly Discharge Volumes for the Snake River at the Upstream and  
 Downstream Extents of the Snake River Islands Unit ..... 3-18  
 Table 3-9. Soil Series Mapped in the Lake Lowell Unit and Characteristics of Upper Soil Layers..... 3-25  
 Table 3-10. Soil Types Mapped for the Snake River Islands Unit of Deer Flat NWR..... 3-27  
 Table 3-11. 2006 Air Quality Index for Canyon County ..... 3-29  
 Table 3-12. Selected Numeric Criteria Supportive of Designated Beneficial Uses in Idaho Water  
 Quality Standards ..... 3-31  
 Table 3-13. State of Idaho Water Quality Categories..... 3-32  
 Table 3-14. Beneficial Uses of Waters within Idaho and Lake Lowell Designations ..... 3-33  
 Table 3-15. Snake River Islands Unit–Specific 303(d) Listings for the Snake River (RM 335-449) ..... 3-35  
 Table 3-16. City of Nampa Land Use Inventories ..... 3-37  
 Table 4-1. Priority Resources of Concern at the Refuge ..... 4-9  
 Table 4-2. Acreages of Habitat Types at the Refuge ..... 4-10  
 Table 4-3. Federally and State-listed Species Potentially Occurring on the Refuge ..... 4-24  
 Table 5-1. Previously Recorded Cultural Resources Sites within Deer Flat Refuge ..... 5-3  
 Table 5-2. Linear Features Recorded within 1-mile Radius of Deer Flat Refuge ..... 5-4  
 Table 5-3. Sites within 1 Mile of Deer Flat Refuge..... 5-5  
 Table 5-4. Early Islands Shown on General Land Office Maps ..... 5-9  
 Table 5-5. Visitor Counts during Fiscal Years (FY) 2010 and 2011. Visitors may engage in more  
 than one activity per visit. .... 5-19  
 Table 5-6. Lake Lowell Fishing Access by Season ..... 5-23  
 Table 5-7. Recreational Opportunities at Other Large Reservoirs in Southwest Idaho and Eastern  
 Oregon..... 5-34  
 Table 5-8. Percent Change in Participation by Activity, 2002-2005 ..... 5-35  
 Table 5-9. Population Estimates for Idaho and the Two Counties near Deer Flat Refuge ..... 5-37  
 Table 5-10. Racial Demographics for the State and Counties near Deer Flat Refuge (2010) ..... 5-38  
 Table 5-11. Unemployment, Poverty, and Household Income for the State and Counties near Deer  
 Flat Refuge..... 5-39  
 Table 5-12. Employment by Industry for the Counties near Deer Flat Refuge ..... 5-39  
 Table 6-1. Summary of Potential Effects of CCP/EIS Alternatives for Deer Flat NWR ..... 6-2  
 Table 6-2. Estimates of FY11 Visits to the Lake Lowell and Snake River Islands Units. Visitors  
 may engage in more than one activity per visit..... 6-39  
 Table 6-3. Deer Flat NWR’s Current and Projected Annual Visits in 15 Years, by Alternative..... 6-42

Table 6-4. Annual Impacts from Refuge Revenue Sharing Payments Under Any CCP/EIS  
Alternative..... 6-65

Table 6-5. Estimated Current Annual Refuge Visitation ..... 6-66

Table 6-6. Average Annual Impacts of Nonlocal Visitor Spending by Activity for Alternative 1..... 6-68

Table 6-7. Average Annual Impacts of Nonlocal Visitor Spending by Activity for Alternative 2..... 6-69

Table 6-8. Average Annual Impacts of Nonlocal Visitor Spending by Activity for Alternative 3..... 6-69

Table 6-9. Average Annual Impacts of Nonlocal Visitor Spending by Activity for Alternative 4..... 6-70

Table 6-10. Average Annual Impacts of Nonlocal Visitor Spending by Alternative ..... 6-71

Table 6-11. Current Staffing and Additional Positions Needed to Implement the CCP..... 6-72

Table 6-12. Annual Local Impacts of Salary Spending by Deer Flat NWR Personnel by Alternative ... 6-72

Table 6-13. Local Economic Impacts of Refuge-related Purchases by Alternative ..... 6-73

Table 6-14. Summary of All Refuge Management Activities for Alternative 1 ..... 6-74

Table 6-15. Summary of All Refuge Management Activities for Alternative 2..... 6-75

Table 6-16. Change in Economic Impacts under Alternative 2 Compared to Alternative 1 ..... 6-75

Table 6-17. Summary of All Refuge Management Activities for Alternative 3..... 6-76

Table 6-18. Change in Economic Impacts under Alternative 3 Compared to Alternative 1 ..... 6-76

Table 6-19. Summary of All Refuge Management Activities for Alternative 4..... 6-77

Table 6-20. Change in Economic Impacts under Alternative 4 Compared to Alternative 1 ..... 6-77

Document continues on next page.

## Executive Summary

This document is a summary of the combined Draft Comprehensive Conservation Plan and Environmental Impact Statement (Draft CCP/EIS) for the 15-year management of Deer Flat National Wildlife Refuge (NWR or Refuge), located in Canyon, Payette, Owyhee, and Washington Counties, Idaho, and Malheur County, Oregon. The U.S. Fish and Wildlife Service (Service) is required by the National Wildlife Refuge System Administration Act of 1966 (as amended) to develop and implement a CCP for the 15-year management of all national wildlife refuges. This Draft CCP/EIS evaluates and compares four alternatives for the conservation of fish, wildlife, and plants within Deer Flat NWR primarily through monitoring of their populations, reduction of human-caused disturbance, management and restoration of habitats, and control of invasive and feral species. The four draft alternatives also include management of wildlife-dependent public uses (i.e., the Service's "Big Six": wildlife observation and photography, hunting, fishing, environmental education, and interpretation) and nonwildlife-dependent uses in a manner that is compatible with the primary conservation purposes for Deer Flat NWR. The environmental consequences section of the Draft CCP/EIS evaluates the impacts from management activities and public uses on Refuge resources and is the basis for determining the compatibility of public uses. Appropriateness findings and compatibility determinations that are part of the Service's Preferred Alternative (Alternative 2) are included with the Draft CCP/EIS as appendices.

The three draft action alternatives (Alternatives 2-4) are the outcome of a public planning process that was initiated in 2010. The Service began the process of developing a CCP with release of a Notice of Intent in the Federal Register on July 15, 2010. Open houses were held on July 28, August 20, and August 21, 2010 at the Deer Flat NWR Visitor Center in Nampa, Idaho. Comments were also solicited on the preliminary draft alternatives at open houses on June 3, June 4, July 8, and July 9, 2011. For additional information see the Summary of Public Involvement in Appendix H.

We describe four alternatives for future management of the Refuge in Chapter 2, and we analyze each alternative's potential effects on the biological, cultural, recreational, and economic environment in Chapter 6. Alternative 2 is identified as the Preferred Alternative, because it would reduce disturbance to wildlife and habitats, positively impact habitats through removal of undesirable species and restoration and rehabilitation of desired species, and increase the quality and accessibility of wildlife-dependent recreation, while allowing for most current public uses to continue.

## Refuge Information and Background

Deer Flat NWR encompasses approximately 11,000 acres and was originally established by Theodore Roosevelt in 1909 to provide a Refuge and breeding ground for migratory birds and other wildlife. The Refuge consists of an overlay on a nearly 9,000-acre Bureau of Reclamation (Reclamation) irrigation facility, adjacent uplands, and approximately 104 islands in the Snake River. As an overlay, management of the Refuge can not impede the irrigation purpose of the Reclamation Reservoir. The Refuge provides habitat for over 215 bird species including waterfowl, waterbirds, shorebirds, raptors, and passerines and is an important resting and wintering area for birds migrating along the Pacific Flyway. The Refuge has also documented over 25 species of mammals and invertebrates falling into 13 different scientific orders. Lake Lowell is the largest physical feature on the Refuge, providing open water, emergent vegetation, and mudflats. Other habitat types found on the Refuge include sagebrush-steppe uplands and riparian habitats. The Refuge provides opportunities for all six wildlife-dependent recreation activities as well as a variety of nonwildlife-

dependent activities. The Service manages the Refuge as part of the National Wildlife Refuge System (Refuge System).

## Refuge Purposes, Vision, and Management Goals

The current Refuge purposes are:

- “as a refuge and breeding grounds for migratory birds and other wildlife” (Executive Order 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 [16 U.S.C. 460k-460k-4], as amended).

The Service’s vision for Deer Flat NWR included in the Draft CCP/EIS is stated as follows:

*Deer Flat National Wildlife Refuge is enjoyed, appreciated, protected, and treasured as a place where wildlife comes first. The public actively supports and advocates for the Refuge purpose and programs. Residents of the Treasure Valley value the oases of wildlife habitat in their backyard, both at Lake Lowell and the Snake River Islands. The clean, clear waters and lush riparian landscapes of Lake Lowell and the Snake River Islands provide nesting, resting, and feeding habitat for spectacular concentrations of migratory birds and other wildlife. Reductions in disturbance to important nesting, breeding, resting and feeding areas allow wildlife in all Refuge habitats to successfully reproduce and raise their young thereby sustaining wildlife populations for future generations of Americans to enjoy. The removal of invasive and/or undesirable plant and animal species on the islands of the Snake River and at Lake Lowell provides habitats where songbirds, nesting waterfowl and colonial waterbirds, and native mammals thrive. Habitat goals are met without impacts to the irrigation resources of Lake Lowell.*

*The Refuge is a place where all visitors are able to enjoy and connect with nature and realize the value of wildlife and habitats. Staff and volunteers share their love of the Refuge and its resources with visitors. In addition to being a destination for hunting, fishing, wildlife photography, and observation, children and adults learn in the outdoor “living classroom” that the Refuge provides. The Refuge also provides for other recreational uses that allow people to enjoy the outdoors without impacting wildlife and habitats. All public use opportunities maintain the integrity of the wildlife resources, instill in visitors the importance of protected open spaces, and provide memorable outdoor experiences for present and future generations of Americans.*

This vision for Deer Flat Refuge would be achieved through management toward the following goals as stated in the Draft CCP/EIS.

## **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.

## **Public Use and Cultural Resources Goals**

**Goal 1:** Visitors of all ages will enjoy abundant 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 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.

## **Management Issues**

The following major issues were identified and expressed by the public, various constituents, and Service staff, and have been analyzed and addressed during CCP development.

### **Wildlife and Habitat Management Issues**

- How should Refuge habitats be managed for resident and migratory wildlife species?
- Which habitats should the Refuge consider priorities for active management?
- What types of biological research and monitoring priorities?
- What is the Refuge's role in improving water quality?
- How does the Refuge address the issue of invasive and undesirable nonnative plant and animal species?

### **Public Use Management Issues**

- 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?
- How 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? How can the Refuge increase the quality of its waterfowl and upland hunts?
- How should limited Refuge resources be allocated between environmental education programs as compared to outreach and interpretation to the general visitor?
- How can the Refuge improve safety for its visitors and reduce the amount of illegal activity?

## **Management Alternatives**

The Draft CCP/EIS includes four alternatives. Alternative 1 reflects the current management of Deer Flat NWR. Alternative 2 is the Service's preferred management alternative and is generally a more intensive approach to management of Refuge resources when compared with current management under Alternative 1. The primary emphasis of Alternative 2 is reduced disturbance to important breeding, nesting and feeding areas, the reduction of undesirable plant and animal species, and the improvement of compatible recreation opportunities. Alternative 3 represents a more restrictive management approach when compared with Alternative 1 or Alternative 2. Alternative 4 represents the most intensive management approach.

The Service has selected Alternative 2 as its Preferred Alternative because it best fulfills the Refuge's purposes and Service mission by providing needed protections for wildlife and habitats, while continuing to allow most recreational activities currently found on the Refuge. The dynamic seasonal

wildlife closures that would be implemented under Alternative 2 would allow the Refuge to adapt to changes in the nesting and feeding requirements of wildlife, while ensuring that only areas that are actively being used by wildlife are closed to potentially-disturbing activities. This technique provides more flexible protections for wildlife as well as more opportunities for compatible recreational uses, especially fishing, than the other action alternatives (Alternatives 3 and 4). Seasonal on-trail regulations would provide wildlife protection while still allowing users to experience Refuge habitats and increase the opportunity for wildlife viewing when wildlife are less sensitive to disturbance. Because of the improvement in wildlife protections, and the opportunity to interact with both traditional and nontraditional Refuge visitors in a way that promotes knowledge of, and involvement in the Refuge, its habitats and wildlife, the Preferred Alternative is expected to best achieve the Refuge's purpose and fulfill the Service's mission.

### **Alternative 1 (Status Quo, No Action Alternative)**

Alternative 1 is the no action alternative required by the National Environmental Policy Act. Management of wildlife, habitat, and public uses would continue at current levels as described below.

#### **Lake Lowell Unit**

***Management of Wildlife and Habitat.*** Management of Refuge wildlife would continue to involve basic population monitoring activities. Management of Refuge habitats would continue to involve primarily invasive species control and limited restoration. Invasive plant control would be conducted by one staff member and volunteers using mechanical, chemical, and biological controls.

A no-wake zone would continue to the southeast of Parking Lot 1, and the entire lake would close for winter migration from October 1 to April 14 each year. No other on-water protection would be provided for wildlife. The emergent vegetation along the shoreline of Lake Lowell would remain unprotected. This vegetation provides erosion control, nesting habitat for grebes and other birds, and foraging habitat for waterfowl and wading birds, as well as forage, nesting, and brood rearing habitat for numerous fisheries.

***Management of Public Uses.*** Existing public uses would continue and include the "Big Six" wildlife-dependent recreational activities as well as nonwildlife-dependent activities such as horseback riding, biking, jogging, motorized boating, use of personal watercraft, waterskiing, picnicking, and swimming. Under Alternative 1, there are few actions that would alter when, where, or how public uses are allowed to occur within the Refuge. Nearly the entire Refuge would continue to be available for on-trail public recreation, including wildlife observation, photography, jogging, bicycling, on-leash dog walking, and horseback riding. No additional trail or lake access would be provided. Upland and waterfowl hunting would continue to be allowed between Parking Lots 1 and 8, and from the east boundary of Gotts Point to the east boundary of the Leavitt Tract. A youth waterfowl hunt would continue to be hosted in current waterfowl hunt zones. A controlled deer hunt would continue to be allowed between Parking Lot 8 and the New York Canal. Gotts Point would remain closed to vehicular traffic, and limited bank fishing opportunities would exist around the lake. Lake users would continue to participate in numerous surface water recreational activities.

The lake would open to boating on April 15 and close on September 30. The current no-wake zone, from Parking Lot 1 east, would remain in place.

Environmental education would continue to be conducted for on- and off-site programs. Public contact with Deer Flat NWR staff would remain limited and intermittent due to the small number of Refuge employees. Opportunities for visitors to obtain additional information while visiting the Refuge would remain largely dependent on kiosks, brochures, and the availability of volunteers.

### **Snake River Islands Unit**

**Management of Wildlife and Habitat.** Under Alternative 1, management of Refuge wildlife would continue to involve basic population monitoring activities. Because of the logistical difficulties and small staff, limited invasive species control and/or restoration efforts would be conducted on the Snake River islands.

**Management of Public Uses.** Existing public uses would continue and include wildlife observation and deer, upland, and waterfowl hunting. The Snake River islands would continue to be open from June 1 to January 31 for off-trail, free-roam activities, including shoreline fishing.

### **Alternative 2 (Service Preferred): Protect Wildlife Using No-wake Zones and New Seasonal Closures while Providing for a Variety of Recreational Activities**

Alternative 2 would emphasize connecting urban families to nature by providing access to new facilities as well as a wide range of wildlife-dependent and nonwildlife-dependent recreational activities. Activities would be managed differently than in the status quo alternative to protect wildlife, reduce conflicts between users, and increase safety. On Lake Lowell, the Refuge would protect shoreline feeding and nesting sites through no-wake zones and seasonal closures. Emphasis would be placed on developing the interpretive programs with the goal of increasing visitor awareness of Deer Flat NWR's purpose and goals and to encourage conservation-oriented visitor behavior. Gotts Point would be opened to vehicular traffic upon completion of a cooperative agreement with Canyon County for increased law enforcement presence.

### **Lake Lowell Unit**

**Management of Wildlife and Habitat.** To provide needed protections for lake-dependent wildlife, a 200-yard no-wake zone is proposed along the south side of the lake between Parking Lots 1 and 8. The entire lake would continue to be closed for the benefit of wintering and migrating birds from October 1 to April 14 each year. No-wake zones would also be required in the Narrows, and the existing no-wake zone on the southeast end of the lake would be expanded to start at a line between Gotts Point and Parking Lot 1. Motorized boats would be allowed in the no-wake zones; however, boaters would be allowed to travel only at speeds that do not create a wake (generally <5 mph). Alternative 2 would also create seasonally closed areas, such as heron rookeries, eagle nests, and grebe nesting colonies, to protect bird species. An increase in habitat enhancement through invasive species removal and vegetation manipulation is proposed. Increases in wildlife and habitat research and assessments would be focused on providing a strong scientific base for future management decisions.

**Management of Public Uses.** The Preferred Alternative provides access for a wide range of outdoor recreational activities while putting in place measures (e.g., no-wake zones and seasonal closures) to protect wildlife. Management efforts would focus on increasing participation in all six priority wildlife-dependent recreational activities. Fishing and interpretation would be emphasized to serve a

growing urban and diverse population. Management of public uses would seek to connect people with nature and build support for wildlife conservation.

### **Snake River Islands Unit**

**Management of Wildlife and Habitat.** Refuge staff would emphasize management of the Snake River Islands Unit by increasing wildlife inventory and monitoring efforts and increasing invasive species control (following the Integrated Pest Management Plan) and restoration efforts. Islands management would be prioritized using several factors and managed accordingly. The most biologically intact islands would receive higher management priority (see Objective 2.2). Island closure dates would be adjusted to better protect nesting geese, wading birds, gulls, and terns. An array of management techniques may be used, including prescribed fire and aerial application of herbicide and/or seed.

**Management of Public Uses.** Existing public uses would continue and include wildlife observation and deer, upland bird, and waterfowl hunting on over 1,200 acres. Most of the Snake River Islands Unit would be open for off-trail, free-roam activities, including shoreline fishing, from June 15 to January 31. Heron- and gull-nesting islands (four to six islands) would be open for off-trail, free-roam activities from July 1 to January 31.

### **Alternative 3: Protect Wildlife Using a No-wake Zone in the East Pool with Seasonal and Permanent Closures while Providing for a Variety of Recreational Activities**

Under Alternative 3, the Refuge would protect habitat in nesting and feeding sites and in open-water habitat by establishing a no-wake zone in the East Pool, morning restrictions on wake-causing activities in the West Pool, and other seasonal and permanent closures. A no-wake zone in the East Pool would make that portion of the lake more suitable for fishing and wildlife observation. Overall, Alternative 3 attempts to increase the quality of wildlife-dependent recreation by eliminating horseback riding and dog walking and segregating high-speed boating from wildlife-dependent users. However, a drawback of the no-wake zone changes would be an increase in the amount of time it would take wildlife-dependent users to reach high-quality wildlife areas. Under Alternative 3, the Refuge would not be open to some activities including horseback riding and dog walking. Bicycling would only be allowed on the trail adjacent to the entrance road.

### **Lake Lowell Unit**

**Management of Wildlife and Habitat.** Emergent plant beds in Murphy's Neck and emergent plant beds from Parking Lots 3 to 8 would be closed to human activity all year. The entire lake would be closed seasonally to protect wintering and migrating birds. All active and historical grebe nesting colonies would be closed to public use by establishing a 500-yard closure during boating season. There would be a 100-yard seasonal closure (from July 15 through September 30) to protect shorebird habitat along the shoreline from Murphy's Neck to the Narrows. A 200-yard closed area and a 200-yard no-wake zone would protect emergent beds and wildlife on the south side of the West Pool. An increase in habitat enhancement through invasive species removal and vegetation manipulation is proposed. Increases in wildlife and habitat research and assessments would be focused on providing a strong scientific base for future management decisions.

**Management of Public Uses.** Under Alternative 3, the lake would be open to use from April 15 to September 20 with only no-wake activities allowed in the East Pool and wake-causing activities allowed from noon to one hour before sunset in the West Pool. If feasible, a wildlife observation/photography boardwalk would be constructed between Parking Lots 1 and 3. To improve the quality of both upland and waterfowl hunting, upland game bird hunting would be allowed only on the east end of the Refuge from the west boundary of the Leavitt Tract to the entrance at Greenhurst Road. A controlled waterfowl hunt (e.g., permit system or sign-in/out) would be allowed only on the south side of the lake between Parking Lots 3 and 8 with a daily limit of 25 shotgun shells per hunter. Other wildlife-dependent activities would be allowed concurrent with the upland hunt and on the boardwalk on the south side of the lake. However, because there is a higher demand by waterfowl hunters and less visibility on the South Side Recreation Area, all trails in the waterfowl hunt area would be closed to the nonhunting public from Parking Lots 3 through 8. The boating season would end on September 20 in order to increase the quality of the youth hunt and reduce the possibility of unsafe hunter/boater interactions.

### **Snake River Islands Unit**

**Management of Wildlife and Habitat.** Under Alternative 3, Refuge staff would emphasize management of the Snake River Islands Unit by increasing wildlife inventory and monitoring efforts and increasing invasive species control (following the Integrated Pest Management Plan) and restoration efforts. The islands' management would be prioritized using several factors and managed accordingly. The most biologically intact islands would receive higher management priority. Island closure dates would be adjusted to better protect nesting geese, wading birds, gulls, and terns. An array of management techniques may be used including prescribed fire and aerial application of herbicide and/or seed.

**Management of Public Uses.** Existing public uses would continue; these uses consist of wildlife observation and deer, upland and waterfowl hunting on 1,219 acres. Most of the Snake River Islands Unit would be open for off-trail, free-roam activities, including shoreline fishing, from June 15 to January 31. Heron- and gull-nesting islands (four to six islands) would be open for off-trail, free-roam activities from July 1 to January 31.

### **Alternative 4: Protect Wildlife with Entire Lake Designated as No-wake Zone with an Emphasis on Wildlife-dependent Recreation**

Alternative 4 is the most protective alternative, providing wildlife restrictions not found in Alternatives 1 through 3. Habitat management would restore, maintain, or mimic natural ecosystem processes as often as possible. To provide adequate sanctuary for Refuge species, increase visitors' opportunities to appreciate wildlife, and provide the best possible wildlife-dependent recreational opportunities, fishing, hunting, wildlife observation, wildlife photography, environmental education, and interpretation would be the only recreational activities allowed on the Refuge. The entire lake would be a no-wake zone.

To provide a sanctuary for waterfowl, shorebirds, and waterbirds, as well as fish and other wildlife, all the emergent beds would be closed to public access.

## **Lake Lowell Unit**

**Management of Wildlife and Habitat.** To reduce disturbance to feeding and resting wildlife, only boating at no-wake speeds would be allowed on Lake Lowell. All emergent beds and the southeast end of the lake would be closed to public use to protect nesting and feeding waterbirds, waterfowl, and shorebirds. The entire lake would continue to be closed for wintering and migrating birds from October 1 to April 14 each year. The shoreline from Murphy's Neck to the Narrows would be protected by a 100-yard closure that would be closed year-round to the public to provide undisturbed loafing and feeding habitat for shorebirds and waterfowl. Trees would be removed in this area to enhance mudflats for migrating shorebirds. An increase in habitat enhancement through invasive species removal and vegetation manipulation is proposed. Increases in wildlife and habitat research and assessments would be focused on providing a strong scientific base for future management decisions.

**Management of Public Uses.** Under Alternative 4, there are numerous actions that would alter when, where, and how public uses would be allowed. Boating would be allowed at no-wake speeds on all areas of the lake open to the public from April 15 to September 30. Several portions of the Refuge would be closed to all public activity (see Map 9). The Refuge would not be open to nonwildlife-dependent activities including horseback riding, pet walking, bicycling, and ice skating.

Alternative 4 includes several elements to protect wildlife and enhance recreational experiences at the Refuge. To minimize conflicts with and improve the quality of the waterfowl hunt program, upland game hunting under Alternative 4 would no longer be allowed at the Lake Lowell Unit. Waterfowl hunting would be allowed on the south side of the Lake Lowell Unit from Parking Lots 1 to 8 with a daily limit of 25 shotgun shells per hunter.

## **Snake River Islands Unit**

**Management of Wildlife and Habitat.** Under Alternative 4, Refuge staff would emphasize management of the Snake River Islands Unit by increasing wildlife inventory and monitoring efforts and increasing invasive species control (following the Integrated Pest Management Plan) and restoration efforts. The islands' management would be prioritized using several factors and managed accordingly. The most biologically intact islands would receive higher management priority. Island closure dates would be adjusted to better protect nesting geese, wading birds, gulls, and terns. An array of management techniques may be used including prescribed fire and aerial application of herbicide and/or seed.

**Management of Public Uses.** Existing public uses would continue and include wildlife observation and deer, upland and waterfowl hunting on 1,219 acres. The Snake River Islands Unit would be open for off-trail, free-roam activities from June 15 to January 31. Under Alternative 4, shoreline fishing would also be available from June 15 to January 31 each year on all islands.

## **Environmental Consequences**

Implementation of each alternative presented in the Draft CCP/EIS would be expected to cause both beneficial and adverse impacts to Refuge resources, recreation opportunities, and local communities and their economies. The following briefly summarizes the various impacts anticipated from each of the three alternatives.

**Alternative 1 (Status Quo).** Overall, we anticipate Alternative 1 would have the least positive impacts to wildlife and habitats. It would also have a negative impact on wildlife-dependent activities. These adverse impacts would result primarily from future increases in visitation and, limited protections for wildlife from human-caused disturbance. Specific negative impacts would be associated with:

- Continued high-speed use of areas adjacent to sensitive habitats and wildlife species,
- Continued use of upland areas adjacent to sensitive habitats and wildlife species,
- Continued use of all trails by nonwildlife-dependent users,
- Continuation of current invasive species control program with minimal mapping, monitoring and/or increase in removal area, and
- Increases in visitation.

Important beneficial impacts from Alternative 1 would result from partnerships that could be formed to explore water quality improvement projects.

**Alternative 2 (Preferred Alternative).** We anticipate Alternative 2 would have greater long-term beneficial impacts on fish, wildlife, plants, and their habitats, as well as on recreation opportunities, than Alternative 1. Beneficial impacts would be related primarily to:

- Targeted seasonal closures of foraging, resting and nesting areas,
- Increases in planning, monitoring, and coverage area of invasive species removal,
- Enhancement of riparian, mudflat and emergent habitats through vegetation removal,
- A smaller increase in visitation than that found in Alternative 1,
- Increased access to quality hunting and fishing opportunities for youth and visitors with mobility impairments,
- Increases in visitor facilities, including a visitor contact station, trails, and blinds,
- Retargeting of the environmental education and interpretation programs to reach more on-site visitors,
- Opportunities for separation of nonwildlife-dependent uses from wildlife-dependent uses through the use of designated trails and no-wake zones,
- Seasonal opportunities for off-trail travel, and
- Partnerships to improve water quality.

Short-term adverse impacts may occur to air quality, visitors, wildlife, or habitats from research and restoration activities. Long-term negative effects may be felt by some hunters as nonhunters are allowed off-trail. Some long-term negative effects to wildlife and habitats may occur from the construction of new public use facilities.

**Alternative 3.** Alternative 3 is expected to result in additional beneficial impacts to wildlife, habitats, and nonconsumptive wildlife-dependent public uses than Alternative 2 but would negatively impact nonwildlife-dependent users more than Alternatives 1 and 2. Positive impacts from Alternative 3 would be related primarily to:

- Increases in habitat and wildlife protection from human-caused disturbance through larger and longer closures and no-wake zones than those found in Alternative 2,
- Regulations allowing upland uses on-trail only,

- Increases in planning, monitoring, and coverage area of invasive species removal,
- Enhancement of riparian, mudflat, and emergent-bed habitats through vegetation removal,
- A decrease in visitation from current levels, which would lead to less habitat and wildlife disturbance,
- Increased access to quality hunting and fishing opportunities for youth and visitors with mobility impairments,
- Increases in visitor facilities including a boardwalk, visitor contact station, trails, and blinds,
- Retargeting of the environmental education and interpretation programs to reach more on-site visitors,
- Increases in the quality of wildlife-dependent recreation through the removal of almost all nonwildlife-dependent upland uses, and
- Partnerships to improve water quality.

Negative impacts in Alternative 3 would mostly affect nonwildlife-dependent and consumptive wildlife-dependent recreation. Negative impacts to public uses from Alternative 3 would be related primarily to:

- Reductions in waterfowl and upland hunting acreage at Lake Lowell,
- Increased difficulty in reaching fishing sites in the East Pool due to the no-wake zone,
- Containment of high speed watercraft to the West Pool,
- Removal of almost all nonwildlife-dependent upland recreation, and
- Increases in closed areas over Alternative 2.

The enforcement of on-trail regulations would be expected to negatively impact wildlife observers and photographers.

**Alternative 4.** Alternative 4 is expected to result in the most long-term beneficial impacts to wildlife, habitats, and nonconsumptive wildlife-dependent public uses but would negatively impact nonwildlife-dependent users more than Alternatives 1, 2, and 3. Positive impacts from Alternative 4 would be related primarily to:

- Increases in habitat and wildlife protection from human-caused disturbance through larger and longer closures and no-wake zones than those found in Alternative 3,
- Regulations allowing upland uses on-trail only,
- Increases in planning, monitoring, and coverage area of invasive species removal,
- Enhancement of riparian, mudflat, and emergent-bed habitats through vegetation removal,
- Lower visitation rates than under Alternative 3, which would lead to less habitat and wildlife disturbance,
- Increased access to quality hunting and fishing opportunities for youth and visitors with mobility impairments,
- Increases in visitor facilities including a visitor contact station, trails, and blinds,
- Improvements to the environmental education program to better meet the needs of teachers,
- Increases in the quality of wildlife-dependent recreation through the removal of almost all nonwildlife-dependent uses, and
- Partnerships to improve water quality.

Negative impacts in Alternative 4 would mostly affect nonwildlife-dependent and consumptive wildlife-dependent recreation. Negative impacts to public uses from Alternative 4 would be related primarily to:

- Reductions in waterfowl hunting acreage at Lake Lowell,
- Removal of upland hunting from Lake Lowell,
- Increased difficulty in reaching fishing sites in the East Pool due to the entire lake being a no-wake zone,
- Removal of nonwildlife-dependent on-water recreation, and
- Removal of almost all nonwildlife-dependent upland recreation,

The enforcement of on-trail regulations would be expected to negatively impact wildlife observers and photographers.

More detailed information about the effects of various alternatives on wildlife, habitat, and public use can be found in Chapter 6.