Minidoka North Side
Resource Management Plan (RMP)
Final Environmental Assessment (EA) and
Finding of No Significant Impact (FONSI)

U.S. Bureau of Reclamation
Pacific Northwest Region
Snake River Area Office

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1.0 PURPOSE AND NEED FOR ACTION

1.1 Introduction

This Environmental Assessment (EA) evaluates the proposed Minidoka North Side Resource Management Plan (RMP). The RMP is being developed by the U.S. Bureau of Reclamation (Reclamation) to manage resources, facilities, and access on their lands and waters. Reclamation's lands in the Minidoka North Side RMP Study Area are shown on Figure 1.1-1, *Location Map*.

1.2 Authority

Title 28 of Public Law 102-575, Section 2805 (106 Stat. 4690; Reclamation Recreation Management Act of October 30, 1992) provides Reclamation with authority to prepare resource management plans.

1.3 Proposed Federal Action

The proposed Federal action is implementation of an RMP for Reclamation lands located at Minidoka Dam and in the Minidoka North Side Study Area. The intent of the RMP is to serve as a blueprint for the future use, management, and site development of Reclamation lands and resources in the RMP Study Area for the next 15 years. Development of the RMP has identified goals and objectives for resource management, specifies desired land and resource use patterns, and explains the policies and actions that would be implemented or allowed during the 15-year life of the plan to achieve these goals and objectives.

1.4 Purpose and Need for Action

1.4.1 Purpose of the Environmental Assessment

The purpose of this Federal action is to prepare an RMP to effectively manage scattered parcels of Reclamation land throughout the Minidoka North Side area. A plan is needed to address current and anticipated future uses to allow the orderly and coordinated development and management of lands and facilities under Reclamation jurisdiction. This RMP is needed to address Reclamation's future management of the 119 separate parcels (approximately 17,700 acres) that make up the Minidoka North Side area, and are spread out over approximately 527,000 acres. Reclamation obtained the majority of these parcels at the beginning of the 20th century. The parcels were either acquired or withdrawn from the public land base specifically for Reclamation's irrigation projects. Now, however, it is apparent that not all of the parcels are required for operation and maintenance of the irrigation projects. In the long term, some of these parcels are likely to be relinquished—that is, put back in public land status and managed by the U. S. Bureau of Land Management (BLM). The majority of the parcels will

remain under Reclamation's jurisdiction. The RMP is a 15-year plan to address management of the existing land base (all 119 parcels), including interim management for parcels that are no longer needed for Project purposes and long-term management for the parcels to be retained. The determination of parcels no longer needed for Project purposes, and the future relinquishment and/or disposal of these parcels is an ongoing and separate process.

The Minidoka North Side lands are currently managed without the guidance of a Reclamation RMP. The purpose of the RMP process is to develop a comprehensive vision to guide future uses and define land and resource management objectives. The 15-year RMP will be used as the basis for directing activities on Reclamation lands in a way that maximizes overall public and resource benefits consistent with Reclamation goals. The RMP will be reviewed, reevaluated, and amended to reflect changing conditions and management objectives on an as-needed basis. Future opportunities for public involvement would be provided on significant changes that affect resources or public use.

Several management issues exist to varying degrees throughout the 119 parcels. Many parcels contain agricultural trespass. Others have been grazed in the past, and several people in the area would like to have additional grazing leases. Some parcels are used as locations for target practice, which is in violation of Reclamation policy. Other violations include dumping and off-road vehicle (ORV) use. Some of the parcels contain remnant native habitat that benefits several wildlife species and would benefit from protection against unauthorized use. Fire management is addressed on a case-by-case basis and rehabilitation efforts are not consistent. Two large parcels are associated with Lake Walcott State Park, which is managed by the Idaho Department of Parks and Recreation (IDPR) for Reclamation. By developing an RMP, Reclamation's goal is to accumulate information about the parcels, and to provide staff and the public with a resource for approaching management issues in a uniform manner across all the parcels, based on Project needs and the features and resources of that parcel.

This EA is being prepared to assist Reclamation in finalizing a decision on a preferred RMP alternative and to determine whether to issue a Finding of No Significant Impact (FONSI) or a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS). An environmental analysis is required by the National Environmental Policy Act of 1969 (NEPA) for any Federal action that may have a significant impact on the environment.

NEPA requires Reclamation to explore a reasonable range of possible alternative management approaches and the environmental effects of these actions. Three alternatives are evaluated and compared in this document, including a No Action Alternative and a Preferred Alternative. The impacts of each alternative were evaluated for the affected resource areas, including soils; water quality and contaminants; vegetation; wildlife; aquatic biology; threatened, endangered, proposed, and candidate species; recreation and access; land use and management; socioeconomics; public services and utilities; environmental justice; cultural resources; Indian sacred sites; and Indian Trust Assets (ITAs). Geology, visual quality, climate and air quality, water resources and hydrology, topography, and transportation were also evaluated, but are not included in this document because it was determined that no impacts would occur on these resources.

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1.5 Location and Background

The Minidoka North Side RMP Study Area is located in parts of Minidoka, Cassia, Jerome, Lincoln, and Blaine counties, Idaho. The Study Area includes Minidoka Dam and 119 scattered land parcels, covering approximately 17,700 acres. The immediate Study Area includes the three counties where all of Reclamation's parcels are located—i.e., Minidoka, Cassia, and Jerome Counties. The Gravity Division and the North Side Pumping Division of the Minidoka Project were designed primarily to provide irrigation to the new communities of Heyburn, Paul, Acequia, and Rupert.

Minidoka Dam impounds Lake Walcott, one of five reservoirs associated within the larger Minidoka Project on the Snake River. Lake Walcott State Park is located on Reclamation property adjacent to the lake, and Reclamation is coordinating its RMP closely with Idaho Department of Parks and Recreation (IDPR) for future planning related to park lands. The U.S. Fish and Wildlife Service (FWS) manages the reservoir water surface and lands on the adjacent Minidoka National Wildlife Refuge (NWR). Unlike Lake Walcott State Park, the Minidoka NWR is considered outside the RMP Study Area. President Teddy Roosevelt designated this 25,000-acre area as the Minidoka NWR in 1909. Other lands in the vicinity are owned or managed by the BLM and private individuals and entities who use the land primarily for agriculture. A&B Irrigation District (A&B), formerly the Northside Pumping Division, and the Minidoka Irrigation District (MID), formerly the Gravity Division, operate and maintain the irrigation water system on these properties.

1.5.1 Historical Overview

Minidoka Dam was Reclamation's first Project in Idaho, with construction completed in 1906. The United States Congress designated its Project authorization to include irrigation and power generation, and the dam and powerplant were listed on the National Register of Historic Places in 1974. At the time the Project was initiated, large tracts of public land were withdrawn and transferred to Reclamation for homestead entry purposes and for the construction of Project facilities. Most of the Minidoka North Side Study Area lands were originally included in the North Side Extension Division, and were expected to become private irrigated farmland. However, because of economic conditions and water shortages, these lands were never developed. A portion of these remaining lands and land in MID are used for Project purposes. These parcels, many of which have trespass issues or other unauthorized uses, are scattered throughout the RMP Study Area among BLM and privately owned lands.

1.5.2 River and Reservoir System Operations

Minidoka Dam is one of five storage dams and two diversion dams included in the Minidoka Project. The lands that the Minidoka Project serves extend from Ashton, Idaho, to Bliss. The Project furnishes a full or supplemental water supply to 1.2 million acres. The actual acreage that Reclamation has acquired or withdrawn for the Minidoka Project is approximately 140,000 acres. Minidoka Dam is a multi-purpose structure with functions including irrigation, power production, flood control, recreation, and fish and wildlife conservation. The dam is

located on the mainstem of the Snake River, 13 miles northeast of Rupert, Idaho, and is an earth and rock filled structure. The dam forms Lake Walcott, which is used as part of the water supply for irrigating approximately 126,000 acres. Lake Walcott serves as a storage and regulation reservoir as well as a diversion point for two canals. Water is diverted at the dam and into a canal on each side of the river. The North Side Canal delivers water to MID and the South Side Canal delivers water to Burley Irrigation District (BID) and a small portion of MID.

Topography prohibits A&B from using gravity fed conveyance systems to divert irrigation water. A&B pumps water from the Snake River for Unit A (2 miles upstream from Milner) and delivers water to Unit B from 177 deep wells. Unit A serves approximately 14,000 acres and Unit B approximately 63,000 acres. By far the majority of the lands in the Study Area are within the boundaries of the A&B district. The lake extends 26 miles up the Snake River. Additional details are provided in Table 1.5-1, *Project Specifications*.

TABLE 1.5-1
Project Specifications

Lake Walcott at Normal Maximum Water Surface	
Elevation	4,195 feet
Total Storage Capacity	210,000 acre-feet
Active Storage for Irrigation	95,200 acre-feet
Shoreline	80 miles
Minidoka Dam	
Structural Height	86 feet
Crest Elevation	4,200 feet
Crest Length	4,475 feet
Spillway Capacity at Elevation 4245.0 feet	89,000 cubic feet per second
Powerplant Capacity	27,700 kW

Source: Reclamation 1999

1.6 Scoping

Public scoping activities were held prior to the development of this Draft EA, including the following:

- Conducting an initial public meeting
- Reviewing comments generated from the first public information newsbrief
- Gathering input on issues from the first Ad Hoc Work Group meeting

An initial public scoping meeting was held on March 6, 2002, in Burley, Idaho. The meeting was advertised through media announcements sent to local outlets and a public information newsbrief

that was sent to nearly 200 people. The purpose of the initial meeting and the newsbrief was to collect public input on the issues that should be addressed in the alternatives for the RMP and Draft EA. Following this meeting, an Ad Hoc Work Group was formed to assist with alternatives development and participation throughout the process. This group consisted of Tribal, agency, and interest group representatives, and met for the first time to discuss issues on April 11, 2002. The public involvement process is described fully in Chapter 4, *Consultation and Coordination*.

1.7 Summary of Issues

The RMP addresses all activities on Reclamation lands in the Study Area. Reclamation identified several issues that need to be addressed by the RMP. These issues were presented to the public, and the list was expanded through this process. A summary list of the primary issues follows.

- Overarching Concerns
  - Maintain a view of the "big picture," i.e., look beyond a tract-by-tract perspective to include area/regional needs & opportunities.
  - Consider area economic development in management decisions.
  - Availability of water and water rights.
- Land Status
  - Keep lands needed for Project purposes in Reclamation's jurisdiction.
  - Define criteria for Project purposes.
  - Support Irrigation District needs as a first priority.
  - Dispose of lands not needed for Project purposes.
  - Give preferences to adjoining owners in land sales or exchanges.
  - Expand agricultural and grazing lease opportunities on Reclamation lands.
  - Protect Reclamation Zone at Minidoka Dam.
  - Keep all lands in Reclamation jurisdiction—do not relinquish to BLM.
  - Allow exchanges/sales to "square up" farm units.
- Natural Resources
  - Inventory vegetation and wildlife resources on Reclamation lands.
  - Identify parcels with high resource value and restrict other uses.
  - Reduce impacts from ORV use, fire, weeds, dumping, and trespass.
  - Protect wetlands and sensitive species.
  - Explore opportunities with farmers for cooperative wildlife habitat/farming.
  - Coordinate efforts for weed/insect control (e.g., BLM/Reclamation).
  - Water quality management & protection, including recharge of aquifer.

- Recreation
  - Provide more recreation opportunities, such as interpretation/education opportunities for cultural resources and wildlife viewing.
  - Promote economic benefits through recreation.
  - Examine expanded use opportunities at the State Park.
  - Protect public access to the river.
  - Manage current unauthorized camping, examine potential for allowing/providing camping outside of State Park.
- Enforcement
  - Prevent illegal dumping, ORV use, and vandalism on Reclamation lands.
  - Address trespass and encroachment on Reclamation lands.
  - Protect public safety.
  - Need for boundary signage and/or fencing.
  - Need to control fires—fire management.
- Coordination
  - Conduct government-to-government consultation with affected Tribes.
  - Define relationships with other agencies (e.g., FWS, Idaho Fish and Game [IDFG], Irrigation Districts, BLM, Counties).
- Cultural Resources
  - Reclamation will meet its responsibilities under Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended.
  - Comply with Federal laws related to Tribes and cultural resources (e.g., Native American Graves Protection and Repatriation Act [NAGPRA]).
  - Need to protect historic cultural sites (e.g., Oregon Trail).
  - Need to protect archaeological resources.
- Indian Trust Assets (ITAs): Keep all lands in Federal ownership for protection of ITAs.

2.0 ALTERNATIVES

This chapter presents the alternatives being considered for implementation of the Minidoka North Side RMP. It describes the No Action Alternative and two action alternatives in detail and provides a summary comparison. IDPR manages Lake Walcott State Park; however, public entity non-Federal managing partner would also be required for any major recreational improvements described in the alternatives that are located outside of the State Park. Reclamation would allow these recreational developments to occur with cost share funding by a managing partner. Minor recreational developments, considered "minimum basic facilities", include improvements such as trails and signage and can be pursued and funded entirely by Reclamation. Also, cost-share conditions would need to be met, and Reclamation funds or other funding sources would have to be available. For comparison of the alternatives, it is assumed that all of the facilities would be built. Other actions, such as increased noxious weed control, do not require managing partners or cost-sharing agreements. Such actions may require memorandums of understanding (MOUs) with other agency partners, and are assumed to be implemented for the purpose of comparing and analyzing the alternatives.

2.1 Alternatives Development

NEPA requires agencies to evaluate a range of reasonable alternatives to a proposed Federal Action. For the Minidoka North Side RMP EA, the proposed Federal Action is the adoption and implementation of the RMP. Alternative management scenarios should meet the purpose and need of the proposal while minimizing or avoiding environmental impacts. The purpose of the RMP is to manage the Minidoka North Side parcel resources by maintaining Project purposes and protecting and enhancing natural and cultural resource values and recreational opportunities.

The RMP will serve as a blueprint for resource protection, management, and enhancement of programs and facilities for a 15-year period. The Draft Alternatives were developed from input provided through the first public meeting, newsbrief response forms returned to Reclamation, Ad Hoc Work Group (AHWG) meetings, and Reclamation's Planning Team. The NEPA alternative development process allows Reclamation to work with interested agencies and the public to formulate alternative management actions that respond to identified issues. This process is described in Chapter 4, *Consultation and Coordination*.

This process resulted in the development of two action alternatives that prescribe a range of natural, cultural, and recreation resource management actions. These actions would be applied depending upon the fate of the land parcels. Those parcels that will be retained for Project purposes (long-term management) may be treated differently than those that are not needed for Project purposes (interim management). These differences are described in this section under each alternative. The No Action Alternative, as required by NEPA, is also analyzed. Each alternative would result in different future conditions in the Minidoka North Side Study Area. The three alternatives are summarized below:

- **Alternative A (No Action Alternative)—Continuation of Existing Management Practices.** If implemented, this alternative would mean continuing to manage Reclamation lands according to existing agreements and under current laws and regulations. Alternative A is not a "status quo" situation. Management of the Study Area lands would be on an ad-hoc basis, without benefit of a management plan.
- **Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis.** This alternative emphasizes natural and cultural resource enhancement while maintaining current recreational opportunities. Some facility improvements are proposed.
- **Alternative C: Multiple Use Emphasis.** This alternative emphasizes multiple use of the parcels while maintaining resource values.

Table 2.1-1 summarizes the features of these alternatives. They are described in detail in Section 2.2.

2.1.1 Similarities Among Alternatives

Although the alternatives differ in many ways, several features are common to all alternatives:

- Continue to operate and maintain Reclamation lands and facilities. For safety and security reasons, require that Minidoka Dam and the security area surrounding the dam remain closed to public access.
- Continue to adhere to existing and future Federal, State, and County laws and regulations.
- Prior to any ground-disturbing action, the appropriate level of site-specific NEPA analysis would be completed. Necessary cultural resources surveys, tribal consultations about traditional cultural properties (TCPs), site evaluation actions, site protection or mitigation actions would occur when planning new actions. Tribal consultations to identify Indian sacred sites or ITAs would also occur as part of planning such actions.
- For recreation development and management aspects, follow the principles in Public Law 89-72, Federal Water Project Recreation Act of 1965, as amended by Title 28 of Public Law 102-575. Basically, if a non-Federal public entity has agreed to manage recreation on Reclamation lands, Reclamation may share development costs for up to 50 percent of the total cost.
- Coordinate with law enforcement entities regarding Public Law 107-69, which authorizes Reclamation to enter agreements with State, Tribal, and local law enforcement agencies to carry out law enforcement on Reclamation land.
- Follow Section 106 and 110 of the National Historic Preservation Act, including the process set forth in 36 CFR 800.
- Comply with current accessibility regulations and standards required at all new facilities and on retrofits of existing facilities.

All actions are dependent upon the availability of funding and must be within the authority of the applicable agency.

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
Land Use and Management						
Agricultural Leases	Consider new leases only when they contribute to the closure of drain wells and where water rights are legally appropriated.		Same as Alternative A, with the additional restriction of: • New leases only if no impacts to natural resources/ cultural resources/threatened and endangered species.	No agricultural leases.	Consider new leases on case-by-case basis; key criterion is benefit to Project purposes where water rights are legally appropriated. New leases only if no impacts to cultural resources/threatened and endangered species.	No agricultural leases.
Grazing Leases	Consider continuation of existing leases. No new leases considered.		Consider new grazing leases on designated parcels that do not affect operations and maintenance, and are based on protection and/or improvement of natural and cultural resource values and water quality concerns. Also, consider grazing as a potential fire management tool for cheatgrass parcels.		Consider new grazing leases on additional designated parcels that don't affect operations and maintenance and don't degrade natural and cultural resource and water quality values. Also, consider grazing as a potential fire management tool for cheatgrass parcels.	
Sand and Gravel Extraction/Sites	Consider on a case-by-case basis where it does not conflict with Reclamation needs.		Consider on a case-by-case basis where it does not conflict with other Reclamation needs or priority natural and cultural resource values.		Same as Alternative A.	
Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)	Not Applicable – pertains to **relinquishment and/or disposal** of lands not needed for Project purposes.	Consider on a case-by-case basis (within Reclamation authority).	Same as Alternative A.	Consider on a case-by-case basis (within Reclamation authority). Evaluate based on natural & cultural resource values, if applicable.	Same as Alternative A.	Same as Alternative B.

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
Pest Control (insects/rodents)	Prepare, implement, and follow recommendations of IPM Plan.		Same as Alternative A.		Same as Alternative A.	
Trespass & Encroachments	Monitor and address problems on a case-by-case basis. Potential actions include signage and public education (e.g., brochure development). Work to eliminate existing trespass.		Implement same actions as Alternative A, but prioritize actions, i.e., eliminate trespass and encroachment by: (1) establishing priorities; (2) surveying sites to determine extent of trespass; (3) updating GIS; (4) increasing enforcement (e.g., notification, fines); (5) working with adjacent landowners to eliminate existing trespass and rehabilitate/re-seed when appropriate; and (6) monitoring to prevent future trespass. (7) advertise Crime Witness Program for reporting dumping and other illegal and unauthorized use.		Same as Alternative B.	
Unauthorized Uses (including dumping)	Monitor and address problems on a case-by-case basis. Potential actions include dump cleanup, etc.		Survey sites to determine and define extent of problem (similar to process described above for trespass/encroachment). For dump sites, characterize contents and prioritize cleanup, as well as attempt to determine responsible parties. Monitor to prevent future dumping.		Same as Alternative B.	
Fire Management	Develop and implement a comprehensive fire management plan, including agreements for fire prevention, fuels management, and land rehabilitation in an effort to protect, restore, and enhance the natural resource values of RMP lands, as well as public safety-related concerns.		Same as Alternative A.		Same as Alternative A.	

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	**Not needed for Project Purposes Interim Management**	**Retain for Project Purposes Long-term Management**	**Not needed for Project Purposes Interim Management**	**Retain for Project Purposes Long-term Management**	**Not needed for Project Purposes Interim Management**
Public Information	Maintain existing interpretive facilities at Lake Walcott State Park and Cinder Pit site (news releases, signs).	No actions.	Same as Alternative A, plus: • Provide signage to emphasize natural and cultural resource values, recreation access, and no dumping.	Focus signage on no dumping; minimal other signage needs.	Same as Alternative B, plus: • Provide signage to emphasize safety and regulations due to multiple use activities.	Same as Alternative B.
Natural Resources						
Federal and State Listed and Sensitive Species	Implement required actions to avoid impacts to and facilitate recovery of ESA-listed species.		Same as Alternative A, plus: • Cooperate in the recovery of Idaho Conservation Data Center- and BLM-listed and sensitive species.		Same as Alternative A.	
Wetlands	Continue to create drain water wetlands to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis (intent is to close all drain wells by the end of 2006).	No wetlands development on lands not needed for Project purposes.	Same as Alternative A, plus: • Implement actions specifically to improve/ increase wetlands habitat value, in conjunction with and when compatible with drain water management. Coordinate with partners, such as Ducks Unlimited.	Same as Alternative A.	Same as Alternative A.	
Habitat Improvements and Rehabilitation	No active management program for habitat improvement.		Undertake proactive management to improve/ rehabilitate habitat, including: (1) Re-seed disturbed lands to reduce weeds, (2) Implement native vegetation restoration/ enhancement efforts, (3) Implement access/use restrictions on parcels with high habitat value. (4) Supplement fire management funds.	Same as Alternative A.	Similar to Alternative B, but more limited: • Funding restricted to fire rehabilitation program.	Same as Alternative A.

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
IDFG Wildlife Management Contracts	Let contracts remain until they expire. May or may not renew. If renewed, new terms would be developed.	Let contracts remain until they expire; cancel contracts if required for relinquishment and/or disposal process.	Cancel contracts and renegotiate possible new contract or agreement with IDFG. Negotiation will entail looking at all appropriate Study Area parcels, not just past agreement parcels.	Let contracts remain until they expire; cancel contracts if required for relinquishment and/or disposal process. Consider short-term contract or agreement until relinquishment and/or disposal process is complete.	Cancel contracts. Reclamation manages lands formerly under contract to IDFG management.	
Weed Control	Limited actions to manage/control weeds (in accordance with IPM Plan to be developed), including cooperation with County and irrigation districts.		Same as Alternative A, plus: • Develop and implement an active weed control program in accordance with IPM Plan. Efforts to be focused on areas with high habitat value (especially along watercourses).		Same as Alternative A.	
Cultural Resources						
General	Comply with Sections 106 and 110 of NHPA, with ARPA and NAGPRA, and regulations implementing these laws.		Same as Alternative A.		Same as Alternative A.	
Identification & Evaluation	Complete archaeological surveys in previously unsurveyed areas when new ground disturbing actions are proposed. Complete test excavations at archaeological sites if needed. Complete tribal consultations to determine if TCP's are present in areas of new ground disturbing actions, or are in or near focused use areas.		Same as Alternative A, plus: • Complete Section 110 (i.e., proactive) archaeological surveys.		Same as Alternative A.	

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
Protection	Unless justified, develop no new features or implement no new ground-disturbing actions within the boundaries of a National Register-eligible archaeological site or TCP. Design projects to avoid or minimize resource damage. Monitor Register-eligible or unevaluated sites or TCPs in or near focused use areas to allow early detection of damage. Implement management or mitigative actions to address identified adverse effects on Register-eligible sites or TCPs. In the event of discovery of human remains of Indian origin, or other cultural items that fall under the purview of NAGPRA, complete tribal consultation procedures as required by 45 CFR 10. In the event that future actions generate archaeological collections, curate those collections in accordance with 36 CFR 79 and 411 DM, which define Federal requirements.		Same as Alternative A, plus: • Include cultural resource protection strategies in IDPR Lake Walcott State Park Management Plan.		Same as Alternative A.	
Indian Sacred Sites						
Indian Sacred Sites	Comply with EO 13007 for any new undertakings on Federal land. Consult with tribes for new actions that have potential to affect sacred sites. Seek to avoid adversely affecting sacred sites, and to accommodate tribal access and use, when consistent with agency mission and law.		Same as Alternative A.		Same as Alternative A.	

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
Indian Trust Assets						
Indian Trust Assets (ITAs)	Consult on actions that may adversely affect ITAs.		Same as Alternative A.		Same as Alternative A.	
Recreation and Access						
Vehicular and Non-Vehicular Access	Enforce existing regulations. Educate public that motorized vehicular use is prohibited on Reclamation lands off of designated roads.		Same as Alternative A, plus: • Develop and implement an Access Management Plan; • Designate and formalize vehicular and non-vehicular trails and access routes; • Prohibit access to areas with high habitat values. Areas not designated as roads in the plan are off limits/closed to vehicular use.		Same as Alternative B, but: • Access Management Plan would not focus on habitat protection. • Greater access provided for multiple uses at established sites, relative to Alternative B (more existing roads would be open than under Alternative B).	
Concentrated Shooting/Target Practice	Prohibit concentrated shooting/target practice on Reclamation lands as required except as formally authorized by Reclamation policy (see Reclamation Manual ENV 02-07).		Same as Alternative A.		Same as Alternative A.	
Lake Walcott State Park	Continued management under agreement with IDPR for operation and maintenance of the park, but without a management plan in place.	Not Applicable.	Same as Alternative A, plus: • In coordination with IDPR and U.S. Fish and Wildlife Service, prepare and implement a Historic Preservation and Maintenance Plan for the park and wildlife refuge lands administered by Reclamation, outlining vegetation preservation/protection, use areas, hardscape areas, etc.	Not Applicable.	Same as Alternative B.	Not Applicable.

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
Day Use Sites	Lack of formalized management of sites would continue where ad hoc day use is occurring; no services or facilities provided. No development.		Increase management oversight at areas where ad hoc day use is occurring. Actively seek a non-Federal partner to provide more active management and facilities at selected day use sites outside the park boundaries. Consider compatible concession/recreation permits. Implement management strategies at Bishop's Hole, including providing minimum basic facilities (e.g., organized access and parking, accessible toilet facility) in coordination with the results and implementation of the spillway study. Monitor use and conditions to protect resources.	Not Applicable.	Same as Alternative B.	

TABLE 2.1-1 MINIDOKA NORTH SIDE RESOURCE MANAGEMENT PLAN –FINAL EA ALTERNATIVES

Area and Topic	Alternative A (No Action Alternative)[/1/]: Continuation of Existing Management Practices		Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis		Alternative C: Multiple Use Emphasis	
	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management	Retain for Project Purposes Long-term Management	Not needed for Project Purposes Interim Management
Camping	Lack of formalized management of ad hoc camping would continue at undeveloped, dispersed sites. No developed sites outside of State Park. Camping prohibited at sites with known cultural resources.		Increase management oversight at areas where ad hoc camping is occurring to protect resources and avoid land use conflicts; no services or facilities to be provided. No developed camping outside of State Park. No camping allowed at Bishop's Hole.		Not Applicable.	Actively seek a non-Federal partner to provide more active management and facilities at selected dispersed campsites, such as Bishop's Hole.

Notes:

[/1/]Alternative A is the No Action Alternative as required under NEPA. In this case, if implemented, it would mean continuing to manage the Reclamation parcels according to existing agreements and under current Federal laws and regulations. It is important to note that Alternative A is not necessarily a "status quo" situation. Rather, Alternative A would be a continuation of existing Reclamation, and where applicable managing partner management of these lands without benefit of a comprehensive management plan.

Any new or renovated facilities will be designed in accordance with current standards for accessibility for persons with disabilities.

2.2 Alternatives Considered in Detail

The three alternatives identified in Section 2.1 and summarized in Table 2.1-1 are described in the remainder of this chapter. The impacts of each alternative are described in Chapter 3, *Affected Environment and Environmental Consequences*. These alternatives are an important part of the planning process because they allow for a thorough exploration of a range of options and an analysis of the potential environmental impacts that may result from implementation.

2.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Alternative A is the No Action Alternative as required under NEPA. If implemented, it would mean continuing to manage Reclamation lands according to existing agreements and under current laws and regulations. It is important to note that Alternative A is not necessarily a status quo or "do nothing" situation. Rather, Alternative A would be continued management of the Minidoka North Side parcels on an ad hoc basis, without benefit of a comprehensive management plan. Some specific highlights of this alternative include the following:

- Agricultural leases would continue to be considered on a case-by-case basis, and only when contributing to the closure of drain wells.
- Existing grazing leases will be considered for renewal, but no new grazing leases would be considered.
- Sand and gravel extraction would continue to be allowed on a case-by-case basis.
- Required actions to avoid impacts to and facilitate recovery of Endangered Species Act (ESA)-listed species would be implemented.
- No active management program would be undertaken related to habitat improvement.
- Reclamation would begin to enforce existing regulations and educate the public that motorized vehicular use is prohibited on Reclamation lands off designated roads.
- Lack of formalized management of sites would continue where ad hoc day use is occurring; and no services or facilities provided.

As discussed in Chapter 1, *Purpose and Need for Action*, the land parcels in the Minidoka North Side RMP Study Area were identified for retention or relinquishment and/or disposal in a separate process and those designations may change, as needed to provide for Project purposes. The designation of the parcels will not change for any of these alternatives. Therefore, relinquishment and/or disposal of certain parcels would still occur under Alternative A. Figure 2.2-1, *Minidoka North Side Land Base and Parcels to Be Relinquished*, shows all parcels and which parcels are currently identified for relinquishment and/or disposal.

2.2.1.1 Retain for Project Purposes: Long-term Management

Land Use and Management

Agricultural Leases

New leases would only be considered when Project purposes dictate and where water rights are legally appropriated.

Grazing Leases

Only existing grazing leases would be considered for renewal, and no new leases would be permitted.

Sand and Gravel Extraction/Sites

Sand and gravel sites would be considered on a case-by-case basis, where such activities would not conflict with Reclamation needs.

Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)

Municipal uses would not be accommodated under Alternative A for parcels that are retained for Project purposes. This option only pertains to relinquishment and/or disposal of lands not needed for Project purposes.

Pest Control (insects/rodents)

Reclamation would prepare, implement, and follow the recommendations of an Integrated Pest Management (IPM) Plan. This plan would include aquatic, terrestrial, and airborne (mosquitoes) pests.

Trespass and Encroachments

Trespass and encroachment issues would continue to be monitored and addressed on a case-by-case basis. Potential actions include signage and public education (such as through development of a brochure). Reclamation would work to eliminate existing trespass.

Unauthorized Uses (including dumping)

Reclamation would monitor and address dumping and other unauthorized uses on a case-by-case basis. Current management actions include dump cleanup and closures.

Fire Management

Reclamation would develop and implement a comprehensive fire management plan, including agreements for fire prevention, fuels management, and land rehabilitation. The goals of the plan would be to protect, restore, and enhance the natural resource values of RMP lands, as well as address public safety-related concerns.

Public Information

No new public outreach activities would be implemented, beyond maintaining the existing interpretive facilities at Lake Walcott State Park and notices at the Cinder Pit site (using tools such as news releases and signs).

Insert Figure 2.2-1, *Minidoka North Side Land Base and Parcels to Be Relinquished*

11 x 17, front

Insert Figure 2.2-1, *Minidoka North Side Land Base and Parcels to Be Relinquished*

11 x 17, back

Natural Resources

Federal and State Listed and Sensitive Species

Under Alternative A, Reclamation would implement required actions to avoid impacts to and facilitate recovery of ESA-listed species. No actions beyond those required would be taken.

Wetlands

On lands retained for Project purposes, Reclamation would continue to create drain water wetlands to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis. It is the intent to close all drain water injection wells by the end of calendar year 2006.

Habitat Improvements and Rehabilitation

Under Alternative A, no active management program for habitat improvement would be undertaken.

IDFG Wildlife Management Contracts

Under Alternative A, contracts would remain in place until they expire. Reclamation would choose whether or not to renew the contracts. If renewed, new terms would be developed.

Weed Control

Reclamation would conduct limited actions to manage and control weeds (in accordance with the IPM Plan that is to be developed). Such actions would include cooperation with the counties and local irrigation districts.

Cultural Resources

General

Reclamation would comply with Sections 106 and 110 of the National Historic Preservation Act (NHPA), with the Archaeological Resources Protection Act (ARPA) and NAGPRA, and regulations implementing these laws.

Identification and Evaluation

Reclamation's approach to cultural resources identification and evaluation would be to conduct such activities only when needed, for example, only completing archaeological surveys in previously unsurveyed areas when new ground disturbing actions are proposed. Reclamation would also complete test excavations at archaeological sites if needed. In areas of new ground disturbing actions, or locations that are in or near focused use areas, Reclamation would complete tribal consultations to determine if TCP's are present.

Protection

Reclamation would not develop any new features, or implement any new ground-disturbing actions, within the boundaries of a National Register of Historic Places (National Register)-eligible archaeological site or TCP, unless justified. If such an action is justified, Reclamation would design projects to avoid or minimize resource damage. In accordance with Federal laws, Reclamation would monitor Register-eligible or unevaluated sites or TCPs in or near focused use

areas to allow early detection of damage, and implement management or mitigative actions to address identified adverse effects on Register-eligible sites or TCPs. If human remains of Indian origin, or other cultural items that fall under the purview of NAGPRA are discovered, Reclamation would complete tribal consultation procedures as required by 45 CFR 10. In the event that future actions generate archaeological collections, Reclamation would curate those collections in accordance with 36 CFR 79 and 411 DM, which define Federal requirements.

Indian Sacred Sites

For any new undertakings on Federal land, Reclamation would comply with Executive Order (EO) 13007, and consult with tribes for new actions that have potential to affect sacred sites. Reclamation would also seek to avoid adversely affecting sacred sites, and to accommodate Tribal access and use, when consistent with agency mission and law.

Indian Trust Assets

Reclamation would consult with the Tribes on actions that may adversely affect Indian Trust Assets (ITAs).

Recreation and Access

Vehicular and Non-Vehicular Access

Under Alternative A, Reclamation would continue to enforce existing regulations. Reclamation would educate the public that, by Federal regulation, motorized vehicular use is prohibited on Reclamation lands off designated roads.

Concentrated Shooting/Target Practice

Prohibit concentrated shooting/target practice on Reclamation lands as required except as formally authorized by Reclamation policy (see Reclamation Manual ENV 02-07).

Lake Walcott State Park

Under Alternative A, Reclamation would continue the existing ad hoc approach to management without the benefit of a plan.

Day Use Sites

The lack of formalized management of sites would continue where ad hoc day use is occurring. No services or facilities would be provided, and no development would take place.

Camping

The lack of formalized management of ad hoc camping would continue at undeveloped, dispersed sites. No sites would be developed outside of the State Park. Camping would be prohibited at sites with known cultural resources.

2.2.1.2 Not Needed for Project Purposes: Interim Management

Under Alternative A, all management activities listed for parcels that will be retained for Project purposes also apply to parcels that are not needed for Project purposes, at least on an interim basis, with the following exceptions:

- Land Use and Management
  - Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)
  - Public Information
- Natural Resources
  - Wetlands
  - IDFG Wildlife Management Contracts

These exceptions are described below.

Land Use and Management

Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)

Municipal uses are not considered for parcels that are being retained for Project purposes. However, parcels that will be managed on an interim basis for future relinquishment and/or disposal may be eligible for such uses. Reclamation will consider municipal uses on a case-by-case basis within their authority.

Public Information

Public information activities will be conducted for some parcels that will be retained, but not for parcels that are identified for relinquishment and/or disposal.

Natural Resources

Wetlands

No wetlands development will take place on lands that are not needed for Project purposes. Part of the screening process for what parcels would be retained was whether or not the parcel was in a suitable location for a potential future wetland. If the parcel did not meet this criteria, it was considered for relinquishment and/or disposal.

IDFG Wildlife Management Contract

Contracts would remain until they expire. If required for relinquishment and/or disposal process, contracts would be cancelled.

2.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

This alternative emphasizes improving implementation of Reclamation's regulations and policies as they relate to the Minidoka North Side lands while providing for natural and cultural resource enhancement in priority areas. Recreation-related development on these lands would require the need for a public entity non-Federal managing partner. Natural resource related activities would

be undertaken according to a prioritized schedule and some would be implemented working under a new MOU with IDFG. It is anticipated that some specific highlights of this alternative include the following:

- No new agricultural leases would be issued except for over-riding Project benefits, and new leases would only be issued if there are no impacts to natural or cultural resources, or threatened and endangered species, and if water rights are legally appropriated.
- New grazing leases would be considered on designated parcels, based on natural and cultural resource values (that is, areas with low habitat values and no cultural resource values).
- Sand and gravel extraction would be considered on a case-by-case basis where it does not conflict with other Reclamation needs or priority natural resource values.
- Facilitate recovery of state-listed and sensitive species as well as implementing required actions to avoid impacts to and facilitate recovery of species listed under the ESA.
- Actively improve habitat values by re-seeding disturbed lands to reduce weeds, implementing native vegetation restoration/enhancement efforts, and implementing access/use restrictions with areas with high habitat value.
- An Access Management Plan would be prepared and implemented designating which routes would be considered roads. Areas with high habitat values would be closed to vehicular use.
- Minimum basic facilities would be provided at selected day use areas, such as Bishop's Hole.

A key management difference between Alternatives B and C is the amount of land on which grazing would be considered. Figure 2.2-2, *Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis—Grazing*, shows the entire RMP Study Area and highlights which parcels would be considered for grazing under this alternative.

2.2.2.1 Retain for Project Purposes: Long-term Management

Land Use and Management

Agricultural Leases

Similar to Alternative A, new agricultural leases would only be considered for over-riding Project benefits and where water rights are legally appropriated. Additionally, such leases would only be considered if there will be no impacts to natural or cultural resources, or to threatened and endangered species.

Grazing Leases

New grazing leases would be considered on designated parcels that do not affect Project operations and maintenance. Criteria would include protection or improvement of natural and cultural resource values and addressing water quality concerns. Reclamation would also consider grazing as a potential fire management tool for cheatgrass parcels. Reclamation would implement a grazing lease monitoring schedule and protocols for all parcels that are leased.

Insert Figure 2.2-2, *Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis—Grazing*

(11 x 17 front)

Insert Figure 2.2-2, *Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis—Grazing*

(11 x 17 back)

Sand and Gravel Extraction/Sites

Reclamation would consider allowing sand and gravel sites on a case-by-case basis where it does not conflict with other Reclamation needs or affect priority natural and cultural resource values.

Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)

Same as Alternative A, municipal uses can only take place on parcels that are identified for relinquishment and/or disposal. Such uses are not applicable for long-term management parcels.

Pest Control (insects/rodents)

Same as Alternative A, pest control would follow the recommendations of the IPM Plan that would be developed for this area.

Trespass and Encroachments

Same as Alternative A, problems will be monitored and addressed on a case-by-case basis and Reclamation would work to eliminate trespass. Under Alternative B, such actions would be prioritized. Trespass and encroachment would be eliminated through the following actions:

1. Establishing a priority list of trespasses to resolve.
2. Surveying sites to determine the extent of trespasses.
3. Updating the geographic information system (GIS) maps and data.
4. Increasing enforcement, including notifications and fines.
5. Working with landowners involved in unauthorized use (trespass) of Reclamation land to eliminate that use and to rehabilitate and re-seed Reclamation land that has been disturbed, when appropriate.
6. Monitoring to prevent future trespass.
7. Reclamation will publicize the Crime Witness Program, which provides rewards for reporting illegal and unauthorized use of Reclamation land.

Unauthorized Uses (including dumping)

Similar to the process described above for trespass and encroachment, Reclamation would survey sites to determine and define the extent of the problem. For dump sites, Reclamation would characterize contents and prioritize cleanup, as well as attempt to determine responsible parties. Reclamation would also conduct monitoring to prevent future dumping. In addition, Reclamation would advertise and post signs about the Crime Witness Program and a toll-free number for reporting illegal and unauthorized uses on Reclamation land.

Fire Management

Same as Alternative A, Reclamation would develop and implement a fire management plan.

Public Information

In addition to the interpretive facilities at Lake Walcott State Park and the signage for the Cinder Pit described under Alternative A, Alternative B would include additional signage to emphasize natural and cultural resource values, recreation access, and no dumping. This signage would be placed on priority parcels as appropriate. In addition, Reclamation would advertise and post signs about the Crime Witness Program and a toll-free number for reporting illegal and unauthorized uses on Reclamation land.

Natural Resources

Federal and State Listed and Sensitive Species

Alternative B would go further in the protection of sensitive species than Alternative A by taking the additional measure of cooperating in the recovery of Idaho Conservation Data Center- and BLM-listed and sensitive species.

Wetlands

Wetlands that contribute to drain water management facilitate closure of groundwater injection wells and would continue to be created under Alternative B, just like under Alternative A. It is the intent to close all drain water injection wells by the end of calendar year 2006. In addition, Reclamation would continue to implement actions specifically to improve or increase wetlands habitat value, in conjunction and when compatible with drain water management. This includes coordination with partners such as Ducks Unlimited.

Habitat Improvements and Rehabilitation

Unlike Alternative A, under Alternative B Reclamation would undertake proactive management to improve and rehabilitate habitat, including the following:

- Re-seed disturbed lands to reduce weeds
- Implement native vegetation restoration/ enhancement efforts
- Implement access/use restrictions on parcels with high habitat value
- Supplement fire management funds

IDFG Management Contracts

Contracts would be cancelled, and potential new contracts or agreements would be considered with IDFG. Negotiation would entail looking at all appropriate Study Area parcels, not just past agreement parcels. Parcels would be identified and prioritized based on wildlife habitat values and/or potential water availability with water rights legally appropriated.

Weed Control

In addition to cooperating with local weed control districts as described for Alternative A, Reclamation would also develop and implement an active weed control program in accordance with an IPM Plan. Efforts would be focused on areas with high habitat value, especially along watercourses.

Cultural Resources

General

Same as Alternative A, Reclamation would comply with Federal laws and regulations.

Identification and Evaluation

Alternative A specifies a more reactive mode of only conducting archeological surveys as needed. Under Alternative B, Reclamation would complete Section 110 (more proactive) archaeological surveys.

Protection

In addition to the protection offered under Alternative A, Reclamation would include cultural resource protection strategies in the IDPR Lake Walcott State Park Management Plan.

Indian Sacred Sites

Same as Alternative A, Reclamation would comply with Federal laws and regulations.

Indian Trust Assets

Same as Alternative A, Reclamation would comply with Federal laws and regulations.

Recreation and Access

Vehicular and Non-Vehicular Access

Existing regulations would be enforced and the public education process would take place to eliminate motorized vehicle traffic off designated roads, as described for Alternative A. In addition, Reclamation would develop and implement an Access Management Plan, designate and formalize vehicular and non-vehicular trails and access routes, and prohibit access to areas with high habitat values. Areas not designated as roads in the plan would be closed to vehicular use.

Concentrated Shooting/Target Practice

Same as Alternative A, Reclamation does not allow concentrated shooting or target practice on any of their lands, except as authorized. Prohibit concentrated shooting/target practice on Reclamation lands as required except as formally authorized by Reclamation policy (see Reclamation Manual ENV 02-07).

Lake Walcott State Park

In coordination with IDPR, Reclamation would prepare and implement a Historic Preservation and Maintenance Plan for the park outlining vegetation preservation and protection, recreation use areas, hardscape areas, and other park features.

Day Use Sites

Under Alternative B, Reclamation would increase management oversight at areas where ad hoc day use is occurring. At selected day use sites, Reclamation would actively seek a public entity non-Federal partner to provide more active management and facilities. As part of this, Reclamation would consider compatible concession or recreation permits. In all of these areas, Reclamation would monitor use and conditions to protect natural and cultural resources.

At Bishop's Hole, Reclamation would implement management strategies, including providing minimum basic facilities such as organized access and parking and an accessible toilet facility. This would be developed in coordination with the results and implementation of the Minidoka Dam spillway study, which may dictate future use of this location as a staging area for spillway reconstruction.

Camping

No developed camping would be allowed outside of Lake Walcott State Park. This camping restriction includes Bishop's Hole (parcel number 925-5-A would be day use only). Reclamation would increase management oversight at areas where ad hoc camping is occurring to protect resources and avoid land use conflicts. No services or facilities would be provided.

2.2.2.2 Not Needed for Project Purposes: Interim Management

Under Alternative B, all management activities listed for parcels that will be retained for Project purposes also apply to parcels that are not needed for Project purposes, with some limited exceptions. Management exceptions occur for the following resources under Alternative B:

- Land Use and Management
  - Agricultural Leases
  - Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)
  - Public Information
- Natural Resources
  - Wetlands
  - Habitat Improvements and Rehabilitation
  - IDFG Wildlife Management Contracts

These exceptions are described below.

Land Use and Management

Agricultural Leases

No agricultural leases would be issued on parcels slated for relinquishment and/or disposal.

Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)

Municipal uses would be considered on a case-by-case basis and evaluated based on natural and cultural resource values, if applicable.

Public Information

Public information efforts would be focused on signage to prevent dumping and unauthorized use. Any other signage would be minimal and only provided if needed.

Natural Resources

Wetlands

Drain water wetlands would continue to be created as under Alternative A. No additional actions, such as those described for long-term management of parcels, would be conducted for parcels that are identified for relinquishment and/or disposal.

Habitat Improvements and Rehabilitation

As with Alternative A, no active management program for habitat improvement would be conducted.

IDFG Wildlife Management Contracts

Contracts would remain in place until they expire. If required for relinquishment and/or disposal process, contracts would be canceled. Reclamation would consider short-term contracts or agreements until the relinquishment and/or disposal process is complete.

2.2.3 Alternative C: Multiple Use Emphasis

Similar to Alternative B, this alternative also emphasizes improving implementation of Reclamation's regulations and policies as they relate to the Minidoka North Side lands. However, Alternative C emphasizes providing for increased accommodation of various uses on Reclamation lands. Recreation-related activities would require the need for a public entity non-Federal managing partner to an even greater degree under this alternative than for Alternative B. Like Alternative B, natural resource-related activities would be undertaken according to a prioritized schedule and some would be implemented working under a new MOU with IDFG. However, emphasis would be placed more on multiple uses of appropriate Reclamation lands and less on improving and restoring natural resource values. Some specific highlights of this alternative include the following:

- New agricultural leases would be considered on a case-by-case basis, and allowed if no impacts to cultural resources or threatened and endangered species are anticipated, and where water rights are legally appropriated.
- New grazing leases would be considered on any parcels that don't affect operations and maintenance, and natural and cultural resource values. Also, grazing would be considered as a potential fire management tool.
- Sand and gravel extraction would be considered on a case-by-case basis as in Alternative A.
- Required actions would be implemented to avoid impacts to and facilitate recovery of ESA-listed species as in Alternative A.
- Actions to improve habitat values would be similar to Alternative B, but more limited, and restricted to a fire rehabilitation program.
- Similar to Alternative B, an Access Management Plan would be prepared and implemented, but with a focus on multiple uses at established sites.

- Public entity non-Federal managing partner(s) would be sought to provide more active management and facilities and services at selected day use sites, such as Bishop's Hole and parcels along the Snake River.

A primary difference between Alternatives B and C is grazing management. Figure 2.2-3, *Alternative C: Multiple Use Emphasis—Grazing*, shows which parcels would be considered for grazing.

2.2.3.1 Retain for Project Purposes: Long-term Management

Land Use and Management

Agricultural Leases

Reclamation would consider new leases on a case-by-case basis. The key criterion is whether there is a benefit to Project purposes and where water rights are legally appropriated. New leases will be issued only if there are no impacts to cultural resources and threatened and endangered species.

Grazing Leases

New grazing leases would be considered on additional designated parcels that do not affect operations and maintenance and do not degrade natural and cultural resource and water quality values. Therefore, under Alternative C, a greater number of parcels are considered available for grazing than under Alternative B, but many of the same restrictions apply. Also, grazing would be considered as a potential fire management tool for cheatgrass parcels.

Sand and Gravel Extraction/Sites

Same as Alternative A, sand and gravel sites would be considered on a case-by-case basis where this use does not conflict with Reclamation's Project purposes.

Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)

Same as Alternatives A and B, municipal uses can only take place on parcels that are identified for relinquishment and/or disposal. Such uses are not applicable for long-term management.

Pest Control (insects/rodents)

Same as Alternatives A and B, pest control would follow the recommendations of the IPM Plan that would be developed for the Study Area.

Trespass and Encroachments

Same as Alternative B, Reclamation would undertake actions to eliminate trespass and encroachment according to a prioritized list.

Unauthorized Uses (including dumping)

Same as Alternative B, Reclamation would survey and clean up dumping sites using a process similar to that used for trespass and encroachments.

Insert Figure 2.2-3, *Alternative C: Multiple Use Emphasis—Grazing*

(11 x 17, front)

Insert Figure 2.2-3, *Alternative C: Multiple Use Emphasis—Grazing*

(11 x 17, back)

Fire Management

Same as Alternatives A and B, Reclamation would develop a comprehensive fire management plan.

Public Information

The signage and management actions described under Alternatives A and B would also be applied under Alternative C. In addition, Reclamation would provide signage to emphasize safety and regulations as a result of multiple use activities.

Natural Resources

Federal and State Listed and Sensitive Species

As with Alternative A, Reclamation would implement Federally required actions for protection of ESA-listed species.

Wetlands

Drain water wetlands would be created as needed to close groundwater injection wells, as described for Alternative A.

Habitat Improvements and Rehabilitation

Management actions taken under Alternative C would be similar to Alternative B, but more limited. Funding for habitat improvements and rehabilitation would be restricted to the fire rehabilitation program.

IDFG Wildlife Management Contracts

Contracts would be cancelled. Reclamation would manage lands formerly under contract to IDFG management.

Weed Control

Reclamation's approach to weed control under Alternative C would be the same as Alternative A, and consist of compliance with the IPM Plan and cooperation with the counties and irrigation districts.

Cultural Resources

General

Same as Alternatives A and B, Reclamation would comply with Federal laws and regulations.

Identification and Evaluation

Same as Alternative A, Reclamation would comply with Federal laws and regulations.

Protection

Same as Alternative A, Reclamation would comply with Federal laws and regulations.

Indian Sacred Sites

Same as Alternatives A and B, Reclamation would comply with Federal laws and regulations.

Indian Trust Assets

Same as Alternatives A and B, Reclamation would comply with Federal laws and regulations.

Recreation and Access

Vehicular and Non-Vehicular Access

Access would be similar to Alternative B, but the Access Management Plan would not focus on habitat protection. Also, greater access would be provided for multiple uses at established sites, relative to Alternative B. Therefore, more existing roads would be open than under Alternative B.

Concentrated Shooting/Target Practice

Target practice and concentrated shooting would be prohibited according to Reclamation policy as with Alternatives A and B.

Lake Walcott State Park

The state park would be managed as described in Alternative B through the development of a Historic Preservation and Maintenance Plan with IDPR.

Day Use Sites

All of the management oversight and action strategies would be the same as Alternative B. This includes seeking a public entity non-Federal cost share partner for selected day use sites, and providing minimum basic facilities at Bishop's Hole in coordination with the Minidoka Dam spillway study.

Camping

Reclamation would actively seek a public entity non-Federal partner to provide more active management and development of facilities at selected dispersed campsites, such as Bishop's Hole.

2.2.3.2 Not Needed for Project Purposes: Interim Management

Under Alternative C, all management activities listed for parcels that will be retained for Project purposes also apply to parcels that are not needed for Project purposes, with some limited exceptions. Management exceptions occur for the following resources under Alternative C:

- Land Use and Management
  - Agricultural Leases
  - Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)
- Natural Resources
  - Habitat Improvements and Rehabilitation

These exceptions are described below.

Land Use and Management

Agricultural Leases

No agricultural leases would be permitted on parcels slated for relinquishment and/or disposal.

Accommodation of Municipal Uses (i.e., resulting in relinquishment and/or disposal of Reclamation lands)

Same as Alternative B, municipal uses would be considered on a case-by-case basis and evaluated based on natural and cultural resource values.

Public Information

Same as Alternative B, public information efforts would be focused on signage to prevent dumping and unauthorized use. Any other signage would be minimal and only provided if needed.

Natural Resources

Habitat Improvements and Rehabilitation

As with Alternative A, no active management program for habitat improvement would be conducted on parcels that are identified for relinquishment and/or disposal.

2.3 Alternative Elements Eliminated from Consideration

Early in the alternatives development process, Reclamation's Planning Team assumed that only two alternatives would be needed: the No Action Alternative, and one action alternative describing the differing management scenarios for parcels that meet Project purposes and would be retained for long-term management versus those that are identified for relinquishment and/or disposal and would be managed on an interim basis. However, discussions with the AHWG indicated that a wide range of management scenarios could be applied to the parcels that are retained for long-term management. For example, different levels of grazing were desired, ranging from no grazing on any parcels to more intensive grazing for fire management. Some members of the public felt that Reclamation should develop more recreation facilities, while others encouraged less development, should the lands be needed in the future for irrigation facilities. Because of this wide range of opinion, the Reclamation Planning Team developed the two action alternatives that were presented in this chapter: one emphasizing resource preservation and protection (Alternative B), and another emphasizing more multiple uses of the parcels (Alternative C).

Most of the elements suggested by the public were included in one or more of the action alternatives. Other elements discussed included working with a partner to develop a formal target practice area at the Cinder Pit, allowing land exchanges or offering a general amnesty for farmers that are trespassing on Reclamation lands, and formalizing and providing for camping facilities outside of Lake Walcott State Park. These elements were reviewed, discussed, and analyzed among the AHWG members and the Reclamation Planning Team members but were eliminated from further consideration because of a lack of authority, conflicts with standard Reclamation policies, potential high costs, high potential for conflict with natural resources, and conflicts among users.

2.4 Summary of Impacts

The impact analysis is presented in Chapter 3. A summary of these impacts is provided in Table 2.4-1.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Soils	Addressing trespass on a case by case basis and enforcing motorized use regulations would result in improvement in soil productivity where compaction and erosion potential would be reduced by limiting vehicle access. Implementing a comprehensive fire management program would reduce erosion and productivity losses because fires could be avoided or minimized under this program.	In addition to the reductions under Alternative A, existing erosion and soil productivity losses would be further reduced with implementation of the Preferred Alternative. This improvement would come mainly from increased ORV management and Access Management Plan development, a more active weed control program, better trespass management, proactive improvement of habitat, and management of recreation sites.	Conditions as described for the Preferred Alternative would apply to Alternative C, except more roads would be open and less habitat improved, which could result in higher levels of runoff and subsequent erosion.
Water Quality and Contaminants	Implementation of Alternative A would result in some beneficial impacts to water quality as Reclamation continues to create drain water wetlands to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis as funds are available.	Implementation of Alternative B would result in similar benefits to water quality as the No Action Alternative. However, there is greater focus under Alternative B to implement actions specifically to improve/increase wetlands habitat value.	Implementation of Alternative C would result in similar minor benefits to water quality as the No Action Alternative.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Vegetation	Continuation of actions such as new agricultural leases, siting of sand and gravel extraction, a limited weed control approach, the lack of management and enforcement of ad hoc camping and motorized vehicle use of the parcels, and the resulting higher fire potential, would all have adverse impacts on native plant communities. The area of Reclamation lands that would be directly impacted by these activities is relatively low, probably less than 500 acres. Off-road driving under this alternative is likely to continue at present levels or increase into areas that currently have native vegetation, which removes vegetation cover and increases the likelihood of human-caused fires. Ad-hoc camping impacts vegetation by both directly damaging or destroying it and indirectly by increasing the potential for weed dispersion and increased risk of fires, with the same consequences as described above.	Alternative B focuses on the protection and enhancement of natural resource values. This would be a priority for all activities, which would minimize or avoid many of the impacts on native plant communities associated with Alternative A. Grazing would be limited and considered on only about 330 acres with native vegetation. Actions specifically aimed at improving wetland plants (wildlife habitat) would be implemented if cooperating partners such as Ducks Unlimited are identified. If successful, these efforts would increase the extent of wetland plants at drain water wetlands. A focus on weed control near high value habitats under this alternative would likely slow or halt the degradation of native plant communities. Major active habitat improvements and rehabilitation are planned that would benefit native plant communities. Compared to Alternatives A or C, reduced vehicular access is likely to result in less driving off-road into areas with native vegetation. This would lessen the potential that parcels with native vegetation would be degraded or destroyed by use or human-caused fire. Increased efforts to control ad-hoc camping would occur under Alternative B, thereby possibly reducing the potential for human-caused fires compared to Alternatives A or C. A proactive habitat restoration program would be implemented under Alternative B to improve and rehabilitate degraded native vegetation. Alternative B includes unspecified efforts to recover rare species.	Avoidance of impacts on natural resources, including sensitive species, would not be a priority under Alternative C. Therefore, actions such as new agricultural leases, sand and gravel extraction, more limited weed control, and less management of ORV use and the resulting higher fire potential have a higher likelihood of adversely affecting native plant communities than under Alternative B. Alternative C could also permit grazing on 567 acres of perennial grasslands compared to 209 acres under Alternative B and none under Alternative A. In addition, this alternative could allow grazing on 1,369 acres of native sagebrush grassland vegetation. Funding to rehabilitate and improve native vegetation and habitat would be restricted to funds available for fire rehabilitation. This would mean less restoration or rehabilitation of native plant communities than under Alternative B. Continuation of ad-hoc camping at dispersed sites as well as no priority for native vegetation protection and more open roads within the Access Management Plan would allow continued degradation of native vegetation and substantially increase the risk of fires compared to Alternative B. Alternative C does not include specific provisions to avoid impacts to sensitive species or to actively work toward their recovery. Potential impacts would be similar to those described under Alternative A.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Wildlife	Several actions that would be continued under Alternative A have the potential of impacting wildlife habitat values. Potential impacts include direct habitat loss, habitat fragmentation, and disturbance of wildlife. As a result of new agricultural leases, siting of sand and gravel extraction sites, the location of drain water wetlands, and the lack of management and enforcement of ad hoc camping and motorized vehicle use of the parcels. Weed control efforts would not increase substantially compared to current efforts. This is likely to result in continued slow spread of weeds on Reclamation parcels, resulting in degraded wildlife habitat values. By far the greatest potential current and future impact of ad-hoc day use or camping and ORV use would result from fires in areas with higher wildlife habitat values. Fires result in the immediate loss of sagebrush and other shrubs that are essential for sagebrush obligate species such as sage grouse, pygmy rabbits, and Brewer's sparrows as well as many other wildlife species. Sensitive wildlife species and their habitats could be adversely affected by actions such as disturbance during the breeding season and habitat loss and fragmentation from ORV use and fires caused by careless human use of Reclamation parcels.	Alternative B focuses on the protection and enhancement of natural resource values. This would be a priority for all activities, which would minimize or avoid many of the impacts to wildlife associated with Alternative A. Generally, lands with higher wildlife habitat values would not be converted to or degraded by other uses. Livestock grazing would be considered on about 330 acres with native vegetation, where cheatgrass is a component of sagebrush dominated landscapes. Grazing on these parcels would degrade wildlife habitat values by removing native plants including grasses and forbs. The improvements to vegetation listed above would also improve wildlife habitat values. Alternative B includes development and implementation of an Access Management Plan to control and restrict motorized vehicle use of parcels with higher wildlife habitat values. This would lessen the potential that parcels with native vegetation would be degraded or destroyed by fire and other habitat degradation. The priority for natural resource protection also extends to rare and sensitive species. All actions that have the potential of adversely affecting sensitive species would only be implemented after appropriate habitat evaluations followed by site clearances, if necessary, to assure that sensitive species and their habitats are not impacted. New management agreements with the Idaho Department of Fish and Game for some of the parcels that would be retained could result in improved habitat conditions if water and funding are available to implement habitat improvement measures.	Avoidance of impacts on natural resources, including sensitive species, would not be a priority under Alternative C. Therefore, actions such as new agricultural leases, sand and gravel extraction, more limited weed control, and less management of ORV use and the resulting higher fire potential have a higher likelihood of adversely affecting wildlife and habitat than under Alternative B. Many of the impacts would be similar to those described for Alternative A. Under Alternative C, livestock grazing would be considered on 10,505 acres, including 567 acres of perennial grasslands compared to 209 acres under Alternative B and none under Alternative A. In addition, this alternative could allow grazing on 1,369 acres of native sagebrush grassland vegetation. Wildlife habitat would be degraded by livestock grazing on parcels with native vegetation. More acres of wetlands and playas could also be grazed than under Alternatives A or B. Continuation of ad-hoc camping at dispersed sites, as well as no priority for natural resource protection and more open roads within the Access Management Plan, would allow continued degradation of wildlife habitat and substantially increase the risk of fires compared to Alternative B. Potential impacts on sensitive species would be similar to those described under Alternative A.
Aquatic Biology	If additional drain water wetlands are developed, these would provide more temporary aquatic habitat for frogs and aquatic insects.	Implementation of Alternative B may result in the development of a few additional drain water wetlands compared to Alternative A if funding partners can be found. Similar temporary aquatic habitat benefits would occur. Habitat improvements may be implemented at some existing or future wetlands under Alternative B if funding partners can be found.	Implementation of Alternative C may have the same minor benefits as the No Action Alternative.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Threatened, Endangered, Candidate, and Proposed Species	One of the commitments of each of the alternatives is that Reclamation will implement any necessary actions to avoid impacts to and facilitate recovery of ESA-listed species, including proposed and candidate species. Therefore, any permitted actions under all of the alternatives would only be allowed after appropriate site clearances so that potential impacts on listed, proposed, and candidate species would be avoided. If site clearances indicate that a protected species may be present, potential impacts would be avoided by either moving the location of the proposed activity or by not issuing the required permit. Alternative A would have no effect on bald eagles. None of the actions that would continue under Alternative A would have any direct or indirect effects on actual or potential yellow-billed cuckoo habitat. Reclamation actions and allowable public actions including unauthorized vehicle use that may affect pygmy rabbits or suitable pygmy rabbit habitat would be altered or eliminated so as to avoid impacts to pygmy rabbits or suitable pygmy rabbit habitat. This action will substantially minimize, but not completely eliminate, the potential for impacts on pygmy rabbits and actual or potential pygmy rabbit habitat because ad hoc camping and day use would continue. No adverse or beneficial impacts to protected fish or aquatic resources would result from implementation of Alternative A. None of the management actions planned for Alternative A would affect potential Ute ladies'-tresses orchid habitat along the Snake River. Therefore, Alternative A would have no effect on the Ute ladies'-tresses orchid.	There would be no effect on bald eagles or actual or potential habitat. There would be no adverse effects on yellow-billed cuckoos or their actual or potential habitat. Site clearances prior to Reclamation activities would reduce the potential for adverse effects on pygmy rabbits compared to Alternative A. However, potential effects of ad hoc camping and day use would be the same as Alternative A. No adverse or beneficial impacts on protected fish or aquatic resources would result from implementation of Alternative B. Implementation of these measures would avoid all potential impacts on the Ute ladies' tresses orchid and potential habitat and result in a determination of no effect.	All of the impact avoidance measures described for Alternative A would also be implemented under Alternative C, resulting in the same conclusions regarding potential impacts on protected wildlife, aquatic, and plant species.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Recreation and Access	Under Alternative A, management of Lake Walcott State Park and Reclamation lands would be without the benefit of a management plan, likely resulting in negligible impacts to recreation resources in the future. Specific proposals related to wetlands may have an indirect beneficial impact on recreation by possibly improving habitat for wildlife species and thus improving opportunities for consumptive and non-consumptive recreational activities.	Identifying a non-Federal partner to provide more active management and facilities, as proposed in Alternative B, would likely have a beneficial impact to recreation resources. Implementation of an Access Management Plan, as proposed in Alternative B, would likely have both moderate beneficial and adverse impacts on recreation and access, specifically hunting, since Reclamation would increase enforcement of existing regulations related to motorized vehicular use and prohibit vehicular access to areas with high habitat value. Implementation of a Historic Preservation and Maintenance Plan for Lake Walcott State Park would generally have beneficial effects on recreation. Actions proposed under Alternative B would enhance the recreation visitor experience at Bishop's Hole by providing minimum basic facilities such as parking and sanitation facilities. Specific proposals related to wetlands, including coordination with partners such as Ducks Unlimited, would, if successful, have an indirect beneficial impact on recreation by improving habitat for wildlife species and thus improving opportunities for recreational activities, specifically hunting.	In general, actions proposed under Alternative C are similar to those proposed under the other two alternatives; thus, effects are expected to be similar. However, the degree of proposed improvements for recreation resources and for the provision for public safety is greater in Alternative C than in Alternatives A and B. Thus overall, Alternative C would likely provide a slightly greater beneficial impact to recreation resources.
Land Use and Management	Trespass and encroachment would continue to be addressed on a case-by-case basis by consultation with the offending parties as well as through public education. These safeguards that are included in this alternative are expected to be sufficient to avoid adverse impacts on land use and management.	From a land use and management perspective, Alternative B would be an improvement relative to the No Action Alternative because this approach emphasizes strategic and coordinated management.	From a land use and management perspective, Alternative C would be relatively similar to Alternative B in terms of approach and impacts. The multiple use emphasis is expected to generally yield positive rather than negative impacts to land use and management.
Socioeconomics	As a continuation of existing management practices, the No Action Alternative would have little or no direct effect on the local economy, employment, population or demographics. As such, no impacts are expected.	Alternative B would have little or no direct effect on the local economy, employment, population or demographics. No impacts are expected to result from the Preferred Alternative.	If additional land became commercially productive through new leases, this could have very minor positive economic benefits for the Study Area, although population or demographics would not likely be affected.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Public Services and Utilities	In general, all three alternatives are nearly identical in terms of public services and utilities and related impacts. Reclamation would develop and implement a comprehensive fire management plan under Alternative A, which would likely improve coordination between resource managers and fire responders resulting in positive impacts. Alternative A contains several provisions affecting law enforcement. These include monitoring Reclamation lands for unauthorized uses such as dumping, beginning to enforce existing vehicular access regulations, and enforcement of prohibitions on concentrated shooting and target practice. Reclamation would continue to allow the irrigation districts to create drain water wetlands on lands retained for Project purposes to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis. This action would continue to have positive resource impacts.	Like the No Action Alternative, Alternative B would specifically address fire suppression, law enforcement, and irrigation wastewater. Alternative B does include a more proactive approach toward law enforcement. In addition to monitoring unauthorized use problems on a case-by-case basis, implementation of Alternative B would survey sites to determine the extent of the problems, characterize dump contents, prioritize cleanup, and attempt to identify those responsible for the offense. Also, in addition to enforcement of existing vehicular access regulations, implementation of Alternative B would include development and implementation of an Access Management Plan. From a law enforcement perspective, these actions would require greater enforcement efforts by Reclamation and coordinating agencies, but would nonetheless result in associated positive resource impacts.	Alternative C is similar to Alternative B in terms of fire suppression, law enforcement, and irrigation wastewater treatment. The only difference is with regard to access management. In contrast to the more restrictive access provisions included in Alternative B, the Access Management Plan envisioned under Alternative C would not focus on habitat protection and would close fewer access roads.
Environmental Justice	None of the alternatives are expected to affect environmental justice. Therefore, mitigation measures are not necessary because no substantial adverse or residual impacts to environmental justice are expected.	Same as Alternative A.	Same as Alternative A.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Cultural Resources	Cultural resources would continue to be identified, protected, and managed on a project-specific basis, in response to individual Reclamation-initiated or Reclamation-sponsored actions that pose a threat to cultural resources. The predominant mode for managing cultural resources would be one of reacting to specific actions on a case-by-case basis, instead of generating protection from within the cultural resources program (that is, a proactive approach). Significant cultural properties would be protected because of legal requirements to do so, not through any agency comprehensive plan or program initiative. Under existing management (as well as the other RMP alternatives), archaeological deposits that are exposed would continue to be degraded by natural forces such as erosion, by vandalism and relic collecting, and by Reclamation-sponsored or initiated actions within the RMP Study Area. Several activities routinely conducted under Alternative A within the RMP area can adversely affect cultural resources because of an informal, unstructured approach that may not consider far-reaching effects to natural and cultural resources. These activities include minimal public information programs; lack of proactive strategies for identifying, evaluating, and protecting cultural resources (i.e., Section 110 activities); lack of a vehicle access plan; continued ad hoc management at Walcott Park without a comprehensive management plan; lack of formalized management at day use sites; and minimal oversight of ad hoc camping.	There is a greater potential for beneficial effects to cultural resources from Alternative B than from Alternative A or Alternative C. Reclamation is required to account for the effects of its actions upon cultural properties under any of the alternatives. However, Alternative B does provide greater opportunities for proactive, non-reactive cultural resource management than either of the other alternatives. Alternative B (and to a lesser extent Alternative C) does not rely on reactions to Reclamation undertakings to trigger protection of cultural resources. Under Alternative B, Section 110 archaeological surveys would be conducted to identify new, previously unrecorded sites. Cultural resource protection would be included in the Lake Walcott State Park Historic Preservation and Maintenance Plan. New agricultural leases would be issued only if there are no impacts to cultural (and other) resources. More controlled and formalized access through an Access Management Plan will reduce inadvertent trampling on cultural resource sites. Increasing management oversight at areas where ad hoc day use and camping is occurring, and confining camping to Lake Walcott State Park, will minimize looting and artifact collection activities. Alternative B provides for a more extensive public information effort than Alternative A does by emphasizing cultural and other values, which could foster an appreciation and respect for those resources.	Impacts resulting from natural agents or human-caused factors would continue under this alternative. However, because Alternative C provides for higher levels expansion of recreation facilities and access than the Alternative B, it does have a greater potential to impact cultural resources, directly and indirectly. Under Alternative C, facilities would be provided at dispersed campsites, actions not envisioned under Alternative B. Alternative C also allows for greater access for multiple uses, resulting in the opening of more roads, causing effects similar to those described above for expanding recreation facilities.

TABLE 2.4-1
Summary of Impacts

Resource Topic	Alternative A (No Action Alternative)—Continuation of Existing Management Practices	Alternative B (Preferred Alternative)—Resource Protection/Enhancement Emphasis	Alternative C—Multiple Use Emphasis
Indian Sacred Sites	If sacred sites are located in the area of potential effect of a Reclamation Project, their integrity is compromised by actual physical disturbances as well as visual or auditory intrusions resulting in changes in character, feeling, and association of the site. In such cases, their "sacredness" and importance as a religious or sacred site is diminished. As with cultural resources, sacred sites are compromised by vandalism and relic collecting, by land use activities, and recreation and other development.	Alternative B is basically the same as Alternative A. However, because of more focused, controlled, and formalized land use activities—along with the cultural resources protection orientation of this alternative—potential impacts to sacred sites under Alternative B would be less than for Alternative A.	Potential impacts on Indian sacred sites under this alternative would be greater than for Alternative B because of the alternative placing less of an emphasis on cultural resources protection than Alternative B.
Indian Trust Assets	There is no universally accepted understanding as to the specific treaty rights to hunt and fish in the vicinity of the Minidoka North side lands since there has not been a settlement with either the Nez Perce Tribe, the Shoshone-Bannock Tribes or the Northwestern Band of the Shoshone Nation as to the extent and nature of their off-reservation hunting and fishing treaty rights. Thus, ITA's considered are tribal hunting and fishing rights that may exist. Water rights claims or lack of such claims within the Snake River Basin Adjudication are not necessarily determinative of these kinds of rights. There are no significant impacts to the right to hunt, right to fish or right to gather under Alternatives A, B, or C.	Same as Alternative A.	Same as Alternative A.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

Chapter 3 is organized by resource topic. Resource topics analyzed include soils, water quality and contaminants; vegetation; wildlife; aquatic biology; threatened, endangered, proposed, and candidate species; recreation and access; land use and management; socioeconomics; public services and utilities; environmental justice; cultural resources; Indian sacred sites; and ITAs. Geology, visual quality, climate and air quality, water resources and hydrology, topography, and transportation are not discussed because during the scoping and analysis process, no potential effects to these resources were identified.

The affected environment is addressed first and describes the current conditions for each resource within Reclamation lands. This is not a comprehensive discussion of every resource within the RMP Study Area, but rather focuses on those aspects of the environment that were identified as issues during scoping or would be affected by the alternatives. The focus for most resource topics is the three-county area (Minidoka, Cassia, and Jerome) where the parcels are located.

The effects of the alternatives are described next in the environmental consequences section for each resource topic. Under the alternatives subheading, the specific impacts of each of the alternatives are discussed in terms of the actions that would occur and specific information about the impact. Only impacts that cannot be fully avoided through the application of best management practices (BMPs), listed in Chapter 5, are described.

In the environmental consequences section, the depth of analysis of the alternatives corresponds to the scope and magnitude of the potential environmental impact. This chapter compares the effects of the three alternatives described in Chapter 2:

- Alternative A (No Action Alternative): Continuation of Existing Management Practices
- Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis
- Alternative C: Multiple Use Emphasis

Alternatives B and C are action alternatives. Alternative A, the No Action Alternative, describes the future without implementation of this RMP. Under Alternative A, lands would continue to be managed as they have been in the recent past. Impacts from the action alternatives are compared to the No Action Alternative. Mitigation measures and residual impacts remaining after implementation of mitigation measures are described for each of the alternatives. A summary of impacts for each alternative is provided at the end of Chapter 2.

3.1.1 Cumulative Impacts

No reasonably foreseeable cumulative impacts were identified during scoping or analysis. Therefore, the resource topics do not include discussions related to cumulative impacts.

3.2 Soils

3.2.1 Affected Environment

Soils in the RMP Study Area have formed under shrub and grassland vegetation types. Underlying parent materials consist of irregular topographic basalt flows, as well as alluvial and eolian deposits. Alluvial deposits are gradually formed along a river through deposition of sediments. Eolian deposits are wind deposited materials, frequently formed as a result of volcanic eruptions.

Most soils are deep to very deep and are formed on level to gently sloping ground, although rock outcrops and shallow soils are found throughout the RMP Study Area. Specifically, soils in the RMP Study Area vary from silt loam and fine sandy loam deposited by wind over basalt to silty clay loam deposited on low alluvial terraces. Subsurface materials range from fine sands to very stony sandy loam. Basalt is the predominant subsurface material.

Certain soils have weakly cemented calcium or silica hardpans of varying thickness at the 12- to 36-inch depth. Scattered areas of high water tables, and salinity-affected soils, can be found north of the Snake River in the southern part of the RMP Study Area. There is a moderate risk of wind and water erosion from certain soils, although this problem is not widespread. Shrink-swell potential is moderate in some soils.

3.2.1.1 Soil Considerations for Wetland Development

Various soil characteristics affect the difficulty with which wetlands can be created on a particular parcel. These characteristics include soil texture (relative percentages of sand, silt, and clay), prevalence of coarse fragments (rock, stone, and gravel); and presence of restrictive layers in the soil profile (hardpans or clay lenses). Characteristics conducive to wetlands creation include a high percentage of clay and silt, no to very few coarse fragments, and a clay lens deep in the soil profile. Physical limitations, such as steep slopes, may limit potential wetland development. Table 3.2-1 lists the potential wetland creation sites and known soil or physical constraints (if any) associated with the sites.

Many of the parcels listed for potential wetland development in Table 3.2-1 are quite large and include more than one soil type, as well as variations within a particular type. Additionally, specific locations for potential wetland development have not been identified. Therefore, additional site-specific information regarding site suitability for wetland development will need to be evaluated on a case by case basis once specific locations are identified.

TABLE 3.2-1
Soil Characteristics of Potential Wetland Creation Locations in the Minidoka Northside RMP Study Area

Parcel Number	Soil Survey	Dominant Soil Series	Soil Constraints/Opportunities	Other Constraints/Opportunities
724-2-W	Minidoka Area	Sluka Silt Loam, 1-4% slopes	5-18% clay will not hold water well; hardpan at 20-40 inches; low gravel content	
821-2-W	Jerome County	Power Silt Loam, 1-4% slopes	15-30% clay enhances water holding capacity; low gravel content	
822-1-W	Minidoka Area	Power-McCain Complex, 1-4% slopes	McCain part of complex has shallow depth to bedrock	
825-4-W	Minidoka Area	Portneuf Silt Loam, 1-4% slopes	6-13% clay will not hold water well	
	Minidoka Area	Sluka Silt Loam, 1-4% slopes	5-18% clay will not hold water well; hardpan at 20-40 inches; low gravel content	
921-12-W	Jerome County	Chiara Silt Loam, 1-8% slopes	<10% clay will not hold water; hardpan at 10-20 inches	
	Jerome County	Dolman Silt Loam, 1-4% slopes	<15% clay will not hold water; hardpan at 20-40 inches	
	Jerome County	Barrymore-Starbuck Complex, 1-4% slopes	Shallow (18-25 inches to bedrock)	
921-13-W	Jerome County	Chiara Silt Loam, 1-8% slopes	<10% clay will not hold water; hardpan at 10-20 inches	
	Jerome County	Dolman Silt Loam, 1-4% slopes	<15% clay will not hold water; hardpan at 20-40 inches	
	Jerome County	Barrymore-Starbuck Complex, 1-4% slopes	Shallow (18-25 inches to bedrock)	
	Jerome County	Tulch Silt Loam, 0-2% slopes	10-30% clay is variable relative to water holding	
921-5-W	Jerome County	Chiara Silt Loam, 1-8% slopes	<10% clay will not hold water; hardpan at 10-20 inches	
	Jerome County	Sluka Silt Loam, 1-4% slopes	5-18% clay will not hold water well; hardpan at 20-40 inches; low gravel content	

TABLE 3.2-1
Soil Characteristics of Potential Wetland Creation Locations in the Minidoka Northside RMP Study Area

Parcel Number	Soil Survey	Dominant Soil Series	Soil Constraints/Opportunities	Other Constraints/Opportunities
922-3-W	Minidoka Area	Bahem Silt Loam, 4-8% slopes	10-18% clay is variable relative to water holding capacity; low gravel content	
	Minidoka Area	Pocatello Silt Loam, 12-30% slopes		May get too steep
925-6-W	Minidoka Area	Gravel Pits		May already have water table established
	Minidoka Area	Tindahay Sandy Loam, 0-1% slopes	Predominately sandy soils greater than 23 inches in depth; will not hold water	
921-6-W	Jerome County	Sluka Silt Loam, 1-4%slopes	5-18% clay will not hold water well; hardpan at 20-40 inches; low gravel content	
1022-6-W	Minidoka Area	Pocatello Silt Loam, 12-30% slopes		

Source: Compilation of data from Natural Resource Conservation Service (NRCS) 1975, 1994, and 1998 by CH2M HILL

3.2.2 Environmental Consequences

3.2.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

In general, impacts to soils from implementation of the alternatives would be expected to be minor. The landscape is relatively flat and rainfall is very low. Flat terrain and low precipitation has resulted in very little water-related erosion. Wind-generated erosion has a greater potential to occur in the RMP Study Area, but is not evident as a problem.

Soil conditions (productivity and erosivity) would, for the most part, remain the same as existing conditions. Certain features of the No Action Alternative would be expected to slightly improve the soil over current conditions. Addressing trespass on a case by case basis and beginning to enforce motorized use regulations would result in improvement in soil productivity where compaction would be reduced by limiting vehicle access. There would also be a benefit from reduced erosion potential. Implementing a comprehensive fire management program would reduce erosion and productivity losses because fires could be avoided or minimized under this program. Limited management of weeds would allow limited native vegetation to re-establish, which is generally better able to prevent wind and water erosion than are weeds. Continued ad hoc management of camping and day use sites would not reduce any impacts currently impinging to soil productivity or erosion rates.

Mitigation and Residual Impacts (Alternative A)

No mitigation is proposed and therefore residual impacts would be the same as described above.

3.2.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Existing erosion and soil productivity losses would be reduced with implementation of the Preferred Alternative compared to Alternative A. This improvement would come mainly from improved off-road vehicle management and Access Management Plan development, a more active weed control program, better trespass management, fire plan implementation, proactive improvement of habitat, and management of recreation and recreation sites. All of these actions would either remove soil surface disturbing activities or encourage active establishment of vegetation, which will increase the capacity of the soil to resist erosion and restore productivity over time.

Mitigation and Residual Impacts (Alternative B)

All roads, trails, and new or upgraded facilities shall employ designs that will not contribute to short-term or long-term soil loss during and following construction and revegetation. Residual impacts would be the same as described above.

3.2.2.3 Alternative C: Multiple Use Emphasis

Conditions as described for the Preferred Alternative would apply to Alternative C except more roads would be open and less habitat improved, which could result in increased runoff and subsequent erosion.

Mitigation and Residual Impacts (Alternative C)

Same as Alternative B.

3.3 Water Quality and Contaminants

3.3.1 Affected Environment

The land surface of the Snake River Plain in the RMP Study Area is flat to gently rolling, with smooth benches and small knolls. While the Snake River itself is deeply incised, the land area nearby often lacks well defined stream drainage patterns and has many local catchments formed within the landscape. As a result, relatively shallow depressions with no natural drainage outlets act as closed basins for low to moderate storm events.

In 1991, the Environmental Protection Agency (EPA) designated the Snake River Plain Aquifer as a sole source of drinking water under the Federal Safe Drinking Water Act. The EPA designation of the eastern Snake River Plain Aquifer as a sole source of drinking water has resulted in increasingly more stringent water quality standards.

3.3.1.1 Surface and Groundwater

Data obtained from the Idaho Department of Water Resources (IDWR) indicates that the depth of groundwater below ground surface for wells in the RMP Study Area ranges from less than 10 feet to 400 feet. Depth to groundwater will likely be more shallow than indicated by well head values due to the perched water table. Perched water tables are irregular mounds in the regional water table that are often created through irrigation. All of the water diverted to the MID from the Snake River is delivered through a network of canals and laterals that are predominantly gravity fed. Occasionally, pumps are used in the MID to lift surface water from a canal or drain where it enters a new lateral for distribution. A&B gets most of its water from wells (Unit B). The A&B has a limited canal system in the far southwest end of the district where it pumps water from the Snake River (Unit A).

Because of the lack of natural surface drainage outlets to the Snake River and constraints associated with drainage into the southern portions of the MID, most drainage return flows and storm water from Unit B are disposed of through injection wells that pass water directly into the underlying groundwater aquifer. There are 78 injection wells within A&B, of which 27 are still active. Within the MID, there are 5 injection wells, of which at least 2 are still active.

In 1973, IDWR, through a grant from EPA, conducted an investigation to evaluate the impact of injection wells on the water quality of the Snake River Plain aquifer. A study site was selected in the A&B irrigation district where the basalt formations represented typical geologic conditions at injection well sites. Study results indicated that discharge to the injection wells was not symmetrical in the recharge zone, and the extent of the water in this zone became larger during each successive discharge sequence. This indicated that the discharge water in the receiving zone rapidly moves laterally into the receiving system. Groundwater flow in the upper receiving system moved through fractures and channels in the overlying basalt after the discharge zone had become saturated.

Purification of the discharged water moving both laterally through the recharge zone and vertically through the underlying basalt was limited. Bacterial levels within the recharge zone of both the deep perched water zone and the confined aquifer were similar to those of the

discharged water. Turbidity, however, was reduced as the discharge water percolated downward through the basalt formations.

3.3.1.2 Water Quality

The quality of return flows is highly variable, depending on its source, method and rate of application, amount of fertilizer added, and other factors (Seitz 1977). In general, dissolved solids are increased because of leaching of minerals from the soil and from application of fertilizers. Nutrient concentrations are generally significantly higher in irrigation waste water than in the applied water. Bacteria concentrations are also significantly higher.

Drain water quality for six drains within A&B is summarized on Table 3.3-1. Overall, the drain water quality within A&B is about as expected for agricultural drain water. Suspended sediments are within normal limits. Nitrogen values within H Drain are higher than other drain locations and all were high compared to water quality standards. Bacteria levels were also substantially higher than water quality standards, especially within the D Drain.

Drain water quality for six drains within MID is summarized on Table 3.3-2. Drain data are summarized from upstream to downstream discharges into the Snake River. Overall, the drain water quality within MID is good. Bacteria and suspended sediments are all within normal limits. Total phosphorus and turbidity values are relatively low and are actually better than expected for irrigation drain flows. Nitrogen values within the D-4 Drain are higher than other drain locations and all were high compared to water quality standards. Again, drain water is not intended for primary human contact. Phosphorous levels were also higher substantially than water quality standards, especially in the D-3 and D-4 drains. But this, too, was expected for agricultural drain water. No data was evaluated for the Southside Canal within MID.

Recent data (1996 to 2001) within MID suggest that concentrations of nitrate/nitrogen dioxide (NO_3/NO_2), fecal coliform bacteria, and total coliform bacteria are generally lower than those found in the Minidoka North Side Pumping Division from 1981 to 1992, which is summarized in Table 3.3-3. Fecal coliform bacteria concentrations in A&B are higher than MID. No significant concentrations of nitrates or trace elements have been found to date.

Results of drain water monitoring indicate that return flows entering project injection wells commonly exceed the Safe Drinking Water Act maximum contaminant level for coliform bacteria and turbidity. Because of the generally poor biological and physical quality of irrigation return flows, continued injection of untreated wastewater could potentially impact points of diversion for domestic use in the project area, and could contribute to contamination of the Snake River Plain Aquifer.

TABLE 3.3-1
A&B Irrigation District Drain Water Quality

Location and Analysis Method	Sample ID	NO3/NO2 mg/L	Fecal Coliform ct/100mL	Totals ct/100mL	E. coli ct/100mL	Suspended Solids mg/L
D-Drain						
average	26AD724 D-drain	2.02	2,126	4,638	—	4
median	26AD724 D-drain	2.03	700	1,120	—	4
max	26AD724 D-drain	2.53	15,100	39,000	—	7
min	26AD724 D-drain	1.65	2	20	—	1
F-Drain						
average	F-drn end infl to Cap@Hwly Weir	0.90	287	468	39	12
median	F-drn end infl to Cap@Hwly Weir	0.75	160	370	28	5
max	F-drn end infl to Cap@Hwly Weir	2.41	1,060	1,600	90	60
min	F-drn end infl to Cap@Hwly Weir	0.07	30	70	10	<1
average	F-drain below Cemetery Pond	2.94	257	755	—	34
median	F-drain below Cemetery Pond	2.94	257	755	—	34
max	F-drain below Cemetery Pond	3.97	1,060	3,000	0	93
min	F-drain below Cemetery Pond	2.13	16	20	0	4
H-Drain						
average	Infl to drn WLL5AD923ON Hdrn	5.03	918	1,210	—	9
median	Infl to drn WLL5AD923ON Hdrn	5.02	600	960	—	4
max	Infl to drn WLL5AD923ON Hdrn	5.36	2,200	2,300	—	33
min	Infl to drn WLL5AD923ON Hdrn	< 0.01	30	70	—	2

TABLE 3.3-1
A&B Irrigation District Drain Water Quality

Location and Analysis Method	Sample ID	NO3/NO2 mg/L	Fecal Coliform ct/100mL	Totals ct/100mL	E. coli ct/100mL	Suspended Solids mg/L
average	Goyne Sump S10 T9 R23	0.02	957	1,148	—	4
median	Goyne Sump S10 T9 R23	0.02	957	1,148	—	4
max	Goyne Sump S10 T9 R23	0.05	3,200	3,600	—	11
min	Goyne Sump S10 T9 R23	< 0.01	14	50	< 2	< 1
E-Drain						
average	Edrn@Edrn Stlngpnd nr rd clvrt	3.35	448	767	245	9
median	Edrn@Edrn Stlngpnd nr rd clvrt	3.35	448	767	245	9
max	Edrn@Edrn Stlngpnd nr rd clvrt	4.21	2,400	2,600	430	20
min	Edrn@Edrn Stlngpnd nr rd clvrt	2.38	12	70	16	<1
ALL DRAINS 1999-2001						
average		2.04	713	1,284	95	10
median		2.48	524	863	137	5
max		5.36	15,100	39,000	430	93
min		0.07	2	20	0	1

Source: Compilation of available data by CH2M HILL

TABLE 3.3-2
Minidoka Irrigation District Drain Water Quality

Sample ID	Analysis Method	NO3/NO2 mg/L	Ortho-P mg/L	T-Phos mg/L	NH3 mg/L	TKN mg/L	Fecal ct/100mL	Totals ct/100mL	Suspended Solids mg/L	Turbidity NTU
D-3 d/s A1 Canal	average	2.43	0.08	0.10	0.05	0.40	201	392	3	2
D-3 d/s A1 Canal	median	2.42	0.08	0.11	0.04	0.39	120	240	2	2
D-3 d/s A1 Canal	max	5.01	0.22	0.24	0.27	0.78	1100	1900	8	4
D-3 d/s A1 Canal	min	0.83	0.01	0.03	< 0.01	0.16	10	22	< 1	< 1
D-4 1/4 Mi u/s Snake River	average	4.80	0.09	0.11	0.03	0.46	203	680	6	2
D-4 1/4 Mi u/s Snake River	median	4.70	0.08	0.10	0.03	0.46	136	320	4	2
D-4 1/4 Mi u/s Snake River	max	7.98	0.26	0.28	0.09	0.75	900	5800	44	6
D-4 1/4 Mi u/s Snake River	min	1.20	0.01	0.03	< 0.01	0.19	10	62	< 1	< 1
D-16 nr old MID Flume	average	0.93	0.03	0.06	0.07	0.47	121	449	5	2
D-16 nr old MID Flume	median	0.88	0.03	0.06	0.06	0.47	90	305	3	2
	max	1.84	0.11	0.13	0.17	0.84	640	1250	50	5
D-16 nr old MID Flume	min	0.24	0.00	0.01	0.01	0.14	10	40	< 1	< 1
D-6	average	0.48	0.05	0.07	0.06	0.41	196	427	3	2
D-6	median	0.46	0.05	0.07	0.03	0.38	89	290	3	2
D-6	max	1.36	0.11	0.14	0.41	0.75	2200	> 2000	6	3
D-6	min	0.03	0.00	0.02	< 0.01	0.26	12	60	< 1	< 1
D-12A	average	1.99	0.04	0.10	0.09	0.65	154	400	8	3
D-12A	median	2.02	0.03	0.10	0.07	0.72	85	250	7	3
D-12A	max	3.03	0.12	0.18	0.36	1.29	1100	> 2000	42	10
D-12A	min	1.05	0.01	0.04	< 0.01	0.08	12	24	1	< 1

TABLE 3.3-2
Minidoka Irrigation District Drain Water Quality

Sample ID	Analysis Method	NO3/NO2 mg/L	Ortho-P mg/L	T-Phos mg/L	NH3 mg/L	TKN mg/L	Fecal ct/100mL	Totals ct/100mL	Suspended Solids mg/L	Turbidity NTU
Main Drain 1/4 Mi u/s Snake R	average	0.32	0.04	0.10	0.06	0.59	263	636	34	11
Main Drain 1/4 Mi u/s Snake R	median	0.30	0.04	0.08	0.04	0.57	220	520	14	6
Main Drain 1/4 Mi u/s Snake R	max	0.79	0.14	0.31	0.16	1.80	1100	2300	264	61
Main Drain 1/4 Mi u/s Snake R	min	0.05	0.01	0.02	< 0.01	0.28	20	60	< 1	2
ALL DRAINS 1996-2001	average	1.58	0.05	0.09	0.06	0.49	169	441	10	4
	median	0.88	0.04	0.08	0.04	0.46	90	290	4	2
	max	7.98	0.26	0.31	0.41	1.80	2200	5800	264	61
	min	0.01	0.00	0.01	0.01	0.08	10	2	1	2

Note: Ortho-P = Ortho-Phosphorous; T-Phos = Total Phosphorous; NH_3 = Ammonia; TKN = Total Kjeldahl Nitrogen; NTU = nephelometric turbidity units

Source: Compilation of available data by CH2M HILL

TABLE 3.3-3
Water Quality Characteristics of Drain Water on the Minidoka North Side Pumping Division (1981-1992)

	Standards/Criteria			Drainwater Concentrations		
Parameter[1]	**Drinking Water**	**Aquatic Life[2]**	**Irrigation Water[3]**	**No. of Samples**	**Range**	**Mean[4]**
Electrical Conductivity (μS/cm)	—	—	750[5]	1021	6—1079	638
Turbidity (FTU)	—	—	—	1127	1—1400	66
Nitrate + Nitrate -N (mg/L)	10	—	—	986	0.1—10.0	2.0
Arsenic, Total	50	850	100	41	1—20	6
Boron	—	—	750	43	20—580	188
Cadmium, Total	5	3.9	10	77	<1—<2	1
Chromium, Total	100	16	100	77	<1—<26	6
Copper, Total	1000	18	200	77	<1—<28	6
Iron, Total	3000[6]	—	5000	77	60—20,300	2930
Lead, Total	15	82	5000	77	1—23	7
Lithium, Total	—	—	75	73	25—85	44
Manganese, Total	50[6]	—	200	77	2—645	100
Mercury, Total	2	2.4	—	78	<0.2—1.0	0.24
Selenium, Total	50	20	20	37	<1—2	2
Zinc, Total	5000	120	2000	77	1—132	30
Total Coliform Bacteria (counts/100 mL)	<1	—	—	888	5—34,000	1843
Fecal Coliform Bacteria (counts/100 mL)	<1	—	4000	888	<2—9,000	251

[1]Units are micrograms/liter except where noted: mS/cm = microsiemens per centimeter; mg/L = milligrams per liter; NTU = Nephelometric Turbidity Units; mL = milliliters
[2]EPA aquatic life criteria used by U.S. Fish and Wildlife Service in the 1991 Minidoka North Side Contaminants Assessment
[3]Adapted from Water Quality Criteria for Agriculture, Environmental Protection Agency (1972)
[4]Mean of samples exceeding detection limits
[5]Problems for sensitive crops such as beans
[6]Secondary standards

Source: Reclamation 1993

As noted, Reclamation has historically injected these drain waters back into the shallow groundwater aquifer. However, concerns over contamination of this aquifer with poor quality water have led to efforts to close the injection wells. In order to get rid of the irrigation runoff, Reclamation and the irrigation districts have constructed a series of artificial wetlands; the main purpose of which is to allow and facilitate evaporation and evapotranspiration of irrigation drain water. Secondary benefits of the constructed wetlands include wildlife habitat and potential water quality improvement.

In 1992, a research and demonstration project to evaluate the use of wetland systems for irrigation drainwater management was initiated at the end of the H Main Drain under Reclamation's wetlands program. Preliminary study results based on 2 years of monitoring by Reclamation indicated a net decrease in suspended solids. There are currently 11 drain water wetlands totaling about 218 acres and ranging in size from about 5 to 44 acres. Consolidation of injection wells and the construction of evaporation wetlands have allowed 51 injection wells to become inactive or capped, leaving 27 in operation in 2003 within A&B. The intent is to close all drain wells by the end of calendar year 2006.

3.3.2 Environmental Consequences

Water quality within the Study Area would generally remain the same under all Alternatives as the current use of injection wells would generally continue under all Alternatives. Additional beneficial impacts to water quality would occur when funds become available to develop new evaporation wetlands as they eliminate or reduce the need for drain water injection.

3.3.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Implementation of Alternative A would result in some beneficial impacts to water quality as Reclamation continues to create drain water wetlands to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis as funds are available.

Because Reclamation's regional-level Wetland Program is not funded for fiscal year 2004, available funding for wetlands will be greatly reduced. The regional program is separate from the drain water management program and is focused more on wetland habitat creation or enhancement.

In the past, the regional program has been used to compliment the drain water management program. The local Drain Water Management program targets elimination or reduction of injection wells. Funding for this program will continue. This program looks at a number of options for closing injection wells, including wetland development. However, any future wetland development would occur under drain water management and would not include funding for habitat development associated with drain water wetlands. Therefore, the opportunity to develop new wetlands will be reduced but not eliminated.

Mitigation and Residual Impacts (Alternative A)

No mitigation measures are proposed and residual impacts would be as stated above.

3.3.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Implementation of Alternative B would result in similar benefits to water quality as the No Action Alternative because drain water wetlands would continue to be created. However, there is greater focus under Alternative B to implement actions specifically to improve/increase wetlands habitat value. Habitat improvements may be implemented at some existing or future wetlands under Alternative B if funding partners can be found. Therefore, the opportunity to develop new wetlands will be greatest under Alternative B and would result in the most beneficial impacts to water quality.

Mitigation and Residual Impacts (Alternative B)

No mitigation measures are proposed and residual impacts would be as stated above.

3.3.2.3 Alternative C: Multiple Use Emphasis

Implementation of Alternative C would result in similar minor benefits to water quality as the No Action Alternative as Reclamation continues to create drain water wetlands to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis. However, Alternative C would benefit water quality less than the other Alternatives as there is less emphasis on improving and restoring natural resource values.

Mitigation and Residual Impacts (Alternative C)

No mitigation measures are proposed and residual impacts would be as stated above.

3.4 Vegetation

Historically, the vegetation on uplands within and surrounding the RMP Study Area consisted of shrub-steppe habitat (Tisdale and Hironaka 1981). Shrub-steppe habitats in western North America are characterized by woody, mid-height shrubs, perennial bunchgrasses, and forbs (Daubenmire 1978, Dealy et al. 1981, Tisdale and Hironaka 1981, Short 1986). Periodic drought, extreme temperatures, wind, poor soil stability, and only fair soil quality (Wiens and Dyer 1975, Short 1986) create a stressful environment for biotic communities. The original shrub-steppe vegetation of the RMP Study Area was dominated by big sagebrush (*Artemisia tridentata*) with an understory of native perennial grasses and forbs, consisting mainly of bluebunch wheatgrass (*Agropyron/Pseudoroegneria spicatum*), Sandberg's bluegrass (*Poa secunda*), needlegrasses (*Stipa* spp.), lupine (*Lupinus* spp,), Indian paintbrush (*Castilleja* spp.), and penstemon (*Penstemon* spp.) (Hironaka et al. 1983). Most of the original bunchgrass-sagebrush communities in the vicinity of the RMP Study Area have been replaced by irrigated agriculture and pasture or are dominated by exotic species that have become established as a result of human disturbance, livestock grazing, and a higher fire frequency compared to pre-European settlement.

3.4.1 Affected Environment

Currently, most of the lands within the RMP Study Area have been converted to irrigated agriculture. Remaining native vegetation exists primarily on RMP Study Area parcels that are interspersed within farmland. The western-most Reclamation parcels have the most remaining native sagebrush-grassland with native understory species of bunchgrasses and forbs, while the eastern parcels generally have had more disturbance and are dominated by rabbitbrush (*Chrysothamnus* spp.) and cheatgrass (*Bromus tectorum*). In some areas, protection from fire, coupled with heavy and prolonged livestock grazing, have resulted in sagebrush stands with an impoverished understory. With forb and grass depletion, biodiversity values are lost and the ability to withstand weed invasion decreases as well. Therefore, many sagebrush stands have an understory of exotic annuals dominated by cheatgrass. Cheatgrass enables a regime of frequent fires, which removes sagebrush cover and perpetuates cheatgrass dominance on these sites. Five major vegetation cover types were identified in the Study Area during vegetation mapping conducted in 2002 (Table 3.4-1, *Current Vegetation on Minidoka North Side Parcels*):

- Sagebrush or shrub-steppe
- Grasslands
- Wetlands
- Playas
- Forested areas

The shrub-steppe cover type on the west side of the RMP Study Area is dominated by big sagebrush. Rabbitbrush is scattered throughout all sites but is dominant mostly on the eastern parcels. Several internally drained basins contain silver sagebrush (*Artemisia cana*) as the dominant shrub, with lesser amounts of three-tip sagebrush (*A. tripartita*). These sites tend to have a sparse understory. There are also scattered stands of winterfat (*Ceratoides lanata*), which is rarely observed in this geographic region.

TABLE 3.4-1
Current Vegetation on Reclamation Parcels in the Minidoka North Side RMP Study Area

Cover Type	Existing Habitat Value[a]	Approximate Total Acres (Hectares)
Sagebrush Habitat		
Sagebrush: Low Cover (<25% sagebrush cover and <60 cm tall)	Medium	400 (162)
Sagebrush: Medium-Low Cover (<25% sagebrush cover and >60 cm tall)	Medium	2,251 (911)
Sagebrush: Medium Cover (>25% sagebrush cover and <60 cm tall)	Medium-High	2 (1)
Sagebrush: High Cover (>25% sagebrush cover and >60 cm tall)	High	2,082 (843)
Grasslands		
Annual Grassland	None	7,054 (2,855)
Crested Wheat Grasslands	Low	842 (341)
Perennial Grassland	Low-Medium	876 (342)
Agriculture	None	864 (350)
Wetland	Low-High	321 (130)
Disturbed	None	91 (37)
Playas	Low	1 (<1)
Wooded	Medium-High	30 (12)
Unsurveyed	Unknown[b]	2,892 (1,207)
Total Acres (Ha)		17,706 (7,165)

[a]Based upon amount and number of native species present and amount of canopy structural diversity.
[b]Generally, unsurveyed parcels likely have low habitat value because they are small and subject to disturbance and weed invasion

Source: Vegetation mapping conducted by CH2M HILL in 2002

Sites that have been protected from livestock grazing for several years and have not burned recently contain a variety of native grasses and forbs mixed with cheatgrass. These sites are typical of the shrub-steppe that are in relatively good range condition. Some of the native plants found in these areas are Sandberg's bluegrass, squirreltail (*Sitanion hystrix*), bluebunch wheatgrass, western wheatgrass (*Agropyron smithii*), basin wildrye (*Elymus cinereus*), needlegrass, Indian ricegrass (*Oryzopsis hymenoides*.), lupine, penstemon, phlox (*Phlox hoodii*), paintbrush, death camas (*Zigadenus* spp.), larkspur (*Delphinium* spp.), and gooseberryleaf globemallow (*Sphaeralcea grossulariifolia*).

Wooded areas are defined by the presence of trees, whether native or invasive. The native species, Rocky mountain juniper (*Juniperus scopulorum*), is only found in a few areas along the Snake River. Russian olive (*Elaeagnus angustifolia*), an aggressive exotic tree that displaces

native species, is taking on a dominant role along the water's edge of most of the wooded parcels along the Snake River.

Disturbed areas were dominated by either the non-native grasses listed under grassland (Table 3.4-1) or by non-native forbs. Forbs on disturbed sites include tumble mustard (*Sisymbrium altissimum*), bur buttercup (*Ranunculus testiculatus*), prickly lettuce (*Lactuca serriola*), goatsbeard (*Tragopogon* spp.), and pepperweed (*Lepidium perfoliatum*). These weedy and exotic forbs also are typical of the herbaceous cover found on disturbed areas.

The annual grassland cover type is dominated by cheatgrass with few forbs or other grasses. The cheatgrass-dominated areas are a result of increased fire frequency depressing the competitive ability of native vegetation. Some areas designated as grasslands were seeded with the non-native perennial grass crested wheatgrass (*Agropyron cristatum*). These areas were distinguished from native perennial grasslands dominated by native grass species because they lack structural diversity and have few, if any, forbs or other plant species that would make them as valuable to wildlife as the native perennial grassland species. Basin wildrye, a large native bunchgrass, occurs in limited areas on wetter sites such as the lower ends of irrigated fields and adjacent to irrigation canals.

Irrigation of RMP Study Area lands results in irrigation drain water that must be disposed. Historically, Reclamation injected these waters back into the shallow groundwater aquifer. However, concerns over contamination of this aquifer with poor quality water have led to efforts to close the injection wells. To dispose of the irrigation runoff, Reclamation and the irrigation districts have constructed a series of artificial wetlands, the main purpose of which is to allow and facilitate evaporation and evapotranspiration of irrigation drain water. Secondary benefits of the constructed wetlands include wildlife habitat and potential water quality improvement. There are 11 drain water wetlands, totaling about 218 acres and ranging in size from about 5 to 44 acres. Other wetlands on the RMP Study Area are generally small, scattered, and usually associated with irrigation water runoff. In addition to the drain water wetlands, these other wetlands cover slightly more than 100 acres. Three wetland types are present: scrub-shrub, emergent, and open water (Cowardin et al. 1979). Scrub-shrub wetlands are dominated primarily by willows (*Salix* spp.). Emergent wetlands are dominated by cattails (*Typha* spp.) and bulrush (*Scirpus* spp.). The open water wetlands include stock ponds and drain water areas with no wetland vegetation.

Playas are unique natural areas where water collects temporarily following larger rain events. However, the water does not remain long enough to support wetland plants. There are several playas within some sagebrush-dominated parcels on the western side of the RMP Study Area. These playas are very rare, contain an uncommonly seen plant, combleaf (*Polyctenium fremontii*), and often contain large areas of soil covered by a cryptogramic or biological soil crust, consisting of cyanobacteria, green algae, lichens, mosses, and/or microfungi. Such crusts protect the soil surface from wind and water erosion by binding the soil surface together and also facilitate rain water percolation into the upper soil horizon.

Agricultural lands are comprised mostly of row crops, small grains, and hay. The primary irrigated crops are alfalfa, beans, corn, peas, potatoes, small grains, and sugar beets.

3.4.1.1 Weed Infestations

Weeds are an important issue across all land uses and cover types. Their presence on agricultural land can decrease harvest potential and increase the cost of farming. Their presence in areas with native plant cover decreases habitat values. Weed species are especially dominant where ground disturbance has occurred and along roads. Some areas are relatively weed free, especially on the larger western parcels where native species dominate and human-related disturbance within the parcels is relatively low. Cheatgrass is the most widespread weed. Bur buttercup is also ubiquitous on most areas with any sort of disturbance. Other weeds that are most often encountered are Canada thistle (*Circium arvense*), bull thistle (*Circium vulgare*), tumble mustard, bulbous bluegrass (*Poa bulbosa*), and kochia (*Kochia scoparia*).

3.4.1.2 Rare and Sensitive Species

Rare and sensitive species listed by the FWS as occurring in one or more of the counties in which the RMP Study Area occurs and that may be present in the Study Area are listed in Table 3.4-2. Expected presence in the Study Area is based on habitat suitability, known distribution, Idaho Conservation Data Center (CDC) information, and published literature.

TABLE 3.4-2
Rare and Sensitive Plant Species Listed by FWS for Counties in RMP Study Area

Species	Potential Occurrence by County[a]			Known Status in RMP Area
	CAS	JER	MIN	
Goose Creek milkvetch *(Astragalus anserinus)*	X			Barren slopes with substrate of white volcanic sand. Unlikely in the RMP area.
Davis' wavewing *(Cymopterus davisii)*	X			Alpine and subalpine slopes, ridges, and summits with calcareous or dolomitic soils. Not expected in the RMP area.
Idaho penstemon *(Penstemon idahoensis)*	X			Utah juniper, bitterbrush and bluebunch wheatgrass with volcanic outcrops. Possible, but unlikely in the RMP area.

[a]Counties: CAS=Cassia; JER=Jerome; MIN=Minidoka

Source: Compilation of on habitat suitability, Idaho CDC information, and published literature by CH2M HILL

3.4.2 Environmental Consequences

3.4.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Regardless of the alternative, the greatest future threats to native vegetation on Reclamation parcels are continued weed invasion and spread and the more frequent fires that occur in cheatgrass infested areas.

Avoidance of impacts on natural resources, including sensitive species, would not be a priority under Alternative A. Therefore, continuation of actions such as new agricultural leases, siting of sand and gravel extraction, relatively limited weed control, the lack of management and enforcement of ad hoc camping and motorized vehicle use of the parcels, and the resulting higher fire potential, would all have adverse impacts on native plant communities. Except for fire, the

area of Reclamation lands that would be directly impacted by these activities is relatively low, probably less than 500 acres. Fires have the potential of adversely impacting much larger areas.

Currently, grazing occurs on less than 1,900 acres of Reclamation parcels in the RMP Study Area. No new grazing leases would be issued under this alternative. Most current grazing occurs on annual grasslands (primarily cheatgrass). These areas have few native plants and little species diversity. Limiting grazing leases to the current acreage would protect native plant communities from degradation by livestock, but it would also prevent livestock from being used as a potential management tool to suppress cheatgrass on the 7,054 acres dominated by cheatgrass. Control of cheatgrass through the use of intensively managed selective grazing could reduce fire potential, thereby reducing threats to adjacent native vegetation. No additional wetlands or playas would be grazed under this alternative.

No Access Management Plan would be developed under this alternative, so off-road driving is likely to continue at present levels or increase into areas that currently have native vegetation. ORV use damages and removes vegetation cover. Removing cover from the soil, particularly on slopes, leads to unstable soil, loss of soil from wind or rain erosion, and deposition of sediment in down-slope areas. ORV use also increases the likelihood of human-caused fires, thereby further increasing the potential for degradation of native vegetation. Ad hoc camping at dispersed sites would continue under this alternative. Ad hoc camping impacts vegetation by both directly damaging or destroying it and indirectly by increasing the potential for weed dispersion and increased risk of fires, with the same consequences as described above.

Development and implementation of an Integrated Pest Management Plan is likely to improve weed control efforts under all alternatives, including this one, but it is unlikely to improve native plant diversity or restore historic habitat values under this alternative.

Sensitive Species. Sensitive plant species are often habitat specialists, requiring specific soils and micro-habitat conditions. Such species are generally in jeopardy because they are more sensitive to disturbance and habitat fragmentation than species that occupy a broad range of habitats or do not have very specific requirements. The fact that protection of natural resource values and sensitive species is not a priority under Alternative A means that sensitive plant species could be adversely affected by actions that would continue under this alternative. The lack of specific protection for sensitive plants during consideration of new agricultural leases, siting of sand and gravel extraction sites, the location of drain water wetlands, as well as continued ORV use, means that sensitive plants could be adversely affected.

Mitigation and Residual Impacts (Alternative A)

BMPs listed in Chapter 5, *Environmental Commitments*, are applicable to all alternatives. BMPs would slightly reduce some of the impacts described above. However, for the most part, residual impacts would be the same as those discussed in detail above.

3.4.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Alternative B focuses on the protection and enhancement of natural resource values. This would be a priority for all activities, which would minimize or avoid many of the impacts on native plant communities associated with Alternative A. Actions that would only be implemented under Alternative B if they did not result in impacts to native plants include new agricultural leases,

consideration of new grazing leases, siting of sand and gravel extraction sites, and the location of drain water wetlands. Better management and enforcement of ad hoc camping and day use to protect natural resources, decreased ORV use, and efforts to eliminate current and prevent future trespass and encroachment onto Reclamation lands would benefit native plants.

Under Alternative B, new grazing leases would be considered only on designated parcels and only if natural and cultural resource values are protected or improved (Figure 2.2-1). Grazing would be considered on 4,998 acres under this alternative. Of these acres, most (3,708 acres) are annual grassland, primarily cheatgrass, and an additional 431 acres are crested wheatgrass, a non-native species with very little wildlife habitat value. Potential control of cheatgrass through the use of intensively managed selective grazing could reduce fire potential on those parcels, thereby reducing threats to adjacent native vegetation. Limiting grazing to monotypic stands of cheatgrass would have little detrimental impact to native vegetation. Grazing would also be considered on about 330 acres with native vegetation, that is, parcels where cheatgrass is a component of sagebrush dominated landscapes. Grazing on these parcels would degrade native plants including grasses and forbs. Under this alternative, less than 8 acres of wetlands and playa would be considered for grazing. This is more than Alternative A and less than Alternative C.

As under Alternative A, drain water wetlands would be created to manage drain water for closure of groundwater injection wells. Actions specifically aimed at improving wetland plants would be implemented if cooperating partners such as Ducks Unlimited are identified. If successful, these efforts would increase the extent of wetland plants at drain water wetlands.

A focus on weed control near high value habitats under this alternative would likely slow or halt the degradation of native plant communities. Under this alternative, active habitat improvements and rehabilitation are planned that would benefit native plant communities. This includes reseeding disturbed lands to reduce weeds, implementing native vegetation restoration and enhancement, and supplementing fire management funds for the restoration and improvement of lands. These efforts would be implemented to the extent that funding is available, but weed control would become a higher priority than under Alternative A. A proactive habitat restoration program would be implemented under Alternative B to improve and rehabilitate degraded native vegetation. Planned actions would likely slow the spread of weeds and improve native vegetation on lands where it is implemented. As with weed control, the extent to which the restoration program is implemented would depend on the availability of funding.

An Access Management Plan would be developed and implemented under this alternative, which would designate existing roads within the RMP Study Area as either open or closed to motorized vehicles. Vehicular access would be most restrictive under this alternative to protect natural resources. Compared to Alternatives A or C, reduced vehicular access is likely to result in less driving off-road into areas with native vegetation and fewer human-caused fires. This would lessen the potential that parcels with native vegetation would be degraded or destroyed. Increased efforts to control ad hoc camping would occur under Alternative B, thereby possibly reducing the potential for human-caused fires compared to Alternatives A or C.

Sensitive Species. The priority for natural resource protection also extends to rare and sensitive species. Alternative B includes unspecified efforts to recover rare species. Therefore, all actions that have the potential of adversely affecting sensitive species would only be implemented after

appropriate habitat evaluations followed by site clearances, if necessary, to assure that sensitive species and their habitats are not impacted and so that recovery efforts are furthered.

Mitigation and Residual Impacts (Alternative B)

If grazing is permitted on parcels with native vegetation, that is, parcels where cheatgrass is a component of sagebrush dominated landscapes, it shall be timed to occur only in late fall/early winter or early spring when cheatgrass is green and is most palatable to livestock and native vegetation is unavailable. If soil is saturated with water, grazing shall be postponed until soil dries to avoid hoof impact damage to soils and soil biotic crusts. Once cheatgrass is under control, the site shall be reseeded to native shrubs, grasses, and forbs and livestock shall be removed. Livestock will be kept out of playas and wetlands and a 200-foot perimeter around these areas will be maintained to avoid damage to these resources. By adhering to these restrictions, livestock grazing would not likely substantially reduce native grasses and forbs on those parcels with a mixture of native vegetation and cheatgrass. This would reduce the potential for impacts on native grasses and forbs on about 330 acres that would be considered for grazing and that would be high priorities for rehabilitation with native species.

Weed control efforts using herbicides shall be administered by a certified applicator. This person would have knowledge of native plants and specific training on identifying the sensitive species listed in Table 3.4-2 so that these plants can be avoided.

In addition to Reclamation's overall planned increase in noxious and invasive weed control efforts, all sites that are disturbed for facilities and trail construction shall be actively monitored for these plants. All infestations shall be treated in accordance with accepted methods and agreements with IDFG and local counties and in accordance with Reclamation's Integrated Pest Management Plan.

BMPs listed in Chapter 5, *Environmental Commitments*, are applicable to all alternatives. The implementation and adherence to these BMPs, combined with the mitigation measures, make it possible to avoid the need for additional measures because these actions are not anticipated to have substantial residual adverse impacts on vegetation resources in the RMP Study Area. The other residual impacts are the same as those discussed in detail above.

3.4.2.3 Alternative C: Multiple Use Emphasis

Avoidance of impacts on natural resources, including sensitive species, would not be a priority under Alternative C. Therefore, actions such as new agricultural leases, sand and gravel extraction, limited weed control, and less management of ORV use and the resulting higher fire potential would have a higher likelihood of adversely affecting native plant communities than under Alternative B.

Grazing would be considered on approximately 10,505 acres under this Alternative. Approximately 5,436 acres of these are in annual grasslands (cheatgrass) with another 502 acres in the non-native crested wheat grass. Alternative C could also permit grazing on 567 acres of perennial grasslands compared to 209 acres under Alternative B and none under Alternative A. In addition, this alternative could allow grazing on 1,369 acres of native sagebrush grassland vegetation. Alternative C would result in relatively large patches of native vegetation being subjected to livestock grazing, which would remove native forbs and bunchgrasses. Because the

vegetation on most parcels is not either completely exotic or completely native, relatively smaller patches of native vegetation located within a larger matrix of exotic vegetation would also be degraded by livestock grazing. More acres of wetlands and playas could also be grazed than under Alternatives A or B.

Drain water wetlands would only be created as local funding is available. No additional efforts to improve habitat values would be implemented, so no additional wetland vegetation would be planted.

Funding to rehabilitate and improve native vegetation and habitat would be restricted to funds available for fire rehabilitation. This would mean less restoration or rehabilitation of native plant communities than under Alternative B. Under this alternative less re-seeding of disturbed lands would either require an escalated level of weed control or result in more weed-infested lands because spraying alone without rehabilitating the site is an ineffective means of controlling weeds over the long term.

Continuation of ad hoc camping at dispersed sites as well as no priority for native vegetation protection and more open roads within the Access Management Plan would allow continued degradation of native vegetation and substantially increase the risk of human-caused fires compared to Alternative B.

Sensitive Species. Alternative C does not include specific provisions to avoid impacts to sensitive species or to actively work toward their recovery. Therefore, impacts to sensitive species could result from most of the actions that would be implemented under Alternative C. Potential impacts would be similar to those described under Alternative A.

Mitigation and Residual Impacts (Alternative C)

Because of the substantially larger area that would be considered for grazing and the limited funds available to administer such a program, it is unlikely that the mitigation measures described under Alternative B could be implemented and enforced under Alternative C. Therefore, much of the potential degradation of native plant communities on parcels that may be grazed under Alternative C would not be avoided. The focus of this alternative on multiple uses means that other impacts described above would not be avoided and that the residual impacts would be the same as described above.

3.5 Wildlife

3.5.1 Affected Environment

In 1989, the FWS completed a study of wildlife and wildlife habitat on a portion of Reclamation withdrawn lands in the Minidoka North Side RMP Study Area (FWS 1989). The study was conducted to prepare a wildlife habitat management plan for parcels within the proposed Minidoka North Side Extension project. That project was not completed. However, data collected on the Reclamation parcels in the RMP Study Area provide the most comprehensive discussion of wildlife and wildlife habitat for the RMP Study Area. Information presented in that report (FWS 1989) was supplemented with information from Reclamation and IDFG biologists, Reclamation GIS files, published and unpublished literature, Idaho CDC data, and observations by CH2M HILL biologists. The FWS (1989) study focused on 73 of the 113 withdrawn parcels. There are only a few major habitat types on the parcels and within each type there is little variation, suggesting that the results of the FWS study broadly apply to all of the withdrawn lands and the surrounding agricultural lands. Information from FWS (1989) has been updated in those instances where more current data are available.

Historically, the vast Snake River Plain, on which the RMP Study Area is located, was covered by shrub/steppe vegetation dominated by sagebrush and a wide variety of bunch grasses and forbs. Habitat value of the original shrub/steppe for wildlife has been substantially reduced and degraded by agricultural and related development, which eliminated most of the original habitat and fragmented much of what remains within predominantly agricultural areas. Remaining habitats have been further degraded by grazing and noxious weed invasion.

While the Reclamation parcels have been fragmented and degraded as described, they do represent the only remnants of native vegetation within a much larger area of irrigated lands served by the Minidoka project, and thus, those parcels that support native vegetation still do have value for wildlife. The highest wildlife habitat values are generally associated with the largest parcels supporting native vegetation. The parcels also provide virtually the only permanent cover for wildlife over a large expanse.

Wildlife using the RMP Study Area lands are generally restricted to species tolerant of the interspersed sagebrush-cropland habitat. Removal of native vegetation and plant structural diversity, through overgrazing and fire, has reduced the abundance and diversity of wildlife (Kindschy 1978, McAdoo and Klebenow 1979, Ryder 1980). Reclamation ended grazing on most of the parcels in 1998, allowing some recovery of native grasses and forbs. However, no quantitative studies or inventories to document vegetation changes on these lands have been conducted.

Big game species on the project area include a few mule deer (*Odocoileus hemionus*) and pronghorn (*Antilocarpa americana*). Some mule deer are resident and others are migrant. In recent years, the number of migrant mule deer has increased to a few hundred deer during severe winters. Fires occurring north of the project area have destroyed winter range, apparently forcing mule deer south onto the Minidoka North Side area (FWS 1985). The loss of native shrublands

from fire and past conversion to agriculture has reduced and degraded mule deer winter range, resulting in increased depredations on private lands (FWS 1985, Reclamation 1986).

Large fur bearing mammals occurring in upland parts of the Study Area include coyote (*Canis latrans*), red fox (*Vulves vulpes*), badger (*Taxidea taxus*), and striped skunk (*Mephitis mephitis*). Raccoons (*Procyo lotor*), muskrats (*Ondatra zibethica*), long-tailed weasels (*Mustela frenata*), and mink (*Mustela vison*) occur on parcels along the Snake River or those containing larger wetlands or canals. Small mammals common to the area include black-tailed jackrabbits (*Lepus californicus*), montane voles (*Microtus montanus*), and deer mice (*Peromyscus maniculatus*).

Some of the conspicuous nongame birds breeding on parcels with native vegetation include common nighthawks (*Chordeiles minor*), western kingbirds (*Tyrannus verticalis*), sage thrashers (*Oreoscoptes montanus*), loggerhead shrikes (*Lanius ludovicianus*), and Brewer's sparrows (*Spizella breweri*).

More than 230 species of birds have been observed at the Minidoka NWR since 1950, according to FWS (2002). The more common breeding raptors are northern harrier (*Circus cyaneus*), red--tailed hawk (*Buteo Jamaicensis*), American kestrel (*Falco sparverius*), and burrowing owl (*Athene cunicularia*). Less common raptors that are present during migration or summer include prairie falcon (*E. mexicanus*), Swainson's hawk (*B. swainsoni*), ferruginous hawk (*B. regalis*), turkey vulture (*Cathartes aura*), short-eared owl (*Asio flammeus*), and great horned owl (*Bubo virginianus*). The most abundant wintering raptors are the rough-legged hawk (*Buteo lagopus*), red-tailed hawk, and prairie falcon. Northern goshawks (*Accipiter gentilis*), may be present in the winter, especially near the Snake River, and golden eagles (*Aguila chrysaetos*) may also be present during winter.

As discussed in Section 3.4, *Vegetation*, Reclamation and the irrigation districts have constructed a series of artificial wetlands; the main purpose of which is to allow and facilitate evaporation and evapotranspiration of irrigation drain water. There are 11 drain water wetlands totaling about 218 acres and ranging in size from about 5 to 44 acres. Other wetlands on the RMP Study Area are generally small, scattered, and usually associated with irrigation water runoff. In addition to the drain water wetlands, these other wetlands cover slightly more than 100 acres. Vegetation cover associated with these drain water wetlands varies considerably. The larger drain water wetlands provide the most valuable wildlife habitat.

The larger wetlands provide feeding and loafing habitat for migrating waterfowl as well as some nesting habitat. No surveys have been conducted to document wildlife use. However, it is likely that several of the species that are common to abundant at the Minidoka NWR would also use the larger drain water wetlands at times. The Minidoka NWR bird lists (FWS 2002 and 1989) indicate that the waterfowl species most likely to use Study Area wetlands and nearby grain fields include mallards (*Anas platyrhynchos*), gadwalls (*A. strepera*), and cinnamon teal (*A. cyanoptera*). Fewer numbers of redheads (*Aythya americana*), ruddy ducks (*Oxyura jamaicensis*), pintails (*Anas acuta*), American wigeon (*Anas americana*) and northern shovelers (*Anas clypeata*) breed in the refuge area and may occasionally use drain water wetlands. Wintering waterfowl include Canada geese (*Branta canadensis*), mallards, pintails, gadwalls, American wigeon, northern shovelers, and green-winged teal (*Anas crecca*). Tundra swans (*Cygnus columbianus*) forage in grain fields in relatively low numbers during migration.

Great blue herons (*Ardea herodias*), American avocets (*Recurvirosta americana*), long-billed curlews (*Numenius americanus*), killdeer (*Charadrius vociferous*), and other shorebirds would also be expected to use the larger wetlands, as would red-winged blackbirds (*Agelaius phoeniceous*).

Historically, Minidoka County had some of the highest densities of pheasants in Idaho (Thomas 1985, FWS 1985). The pheasants reached peak densities between 1955 and 1965. The increase in grain production—in combination with weedy areas along canals, roadside vegetation, spoil areas, and interspersion of remaining sagebrush lands—created excellent habitat for pheasants (Reclamation 1986). In recent years, however, pheasants have declined drastically (Rybarczyk and Connelly 1985). Much of the decline is due to loss of permanent and carry-over wintering and nesting habitat that resulted from changes in farming practices. Conversion of rangelands to agriculture, and more efficient and intensive farming, has resulted in larger farms, loss of roadside cover, removal of riparian vegetation, increased use of herbicides and insecticides, and burning of fence rows and ditch banks. Croplands are usually fallow during fall and winter, making waste grain unavailable as a pheasant food source. In addition to clean farming practices, human-caused and wild fires have converted sagebrush to annual grasslands, destroying valuable winter and escape cover for pheasants.

In addition to pheasants, other upland game species in the Study Area include gray partridge (*Perdix perdix*), mourning dove (*Zenaida macroura*), Nuttall's cottontail (*Sylvilagus nuttallii*).

Amphibians and reptiles expected to occur include long-toed salamanders (*Ambystoma macrodactylum*), pacific treefrogs (*Hyla regilla*), western chorus frogs (*Pseudacris triseriata*), longnose leopard lizards (*Gambelia wislizenii*), side-blotched lizard (*Uta stansburiana*), racers (*Coluber constrictor*), gopher snakes (*Pituophis melanoleucus*), garter snakes (*Thamnophis* spp.), and western rattlesnakes (*Crotalus viridis*).

The Snake River immediately downstream of Minidoka Dam is included in the RMP Study Area. Most of the wildlife species noted as using wetlands and river side parcels would be expected in this area. In addition, white pelicans (*Pelicanus erythrohynchus*) and several species of gulls use the area just below the dam during the summer.

Executive Order 13186 defines the responsibilities of Federal agencies to protect migratory birds under the four Migratory Bird Treaties (MBT Conventions) to which the United States is a signatory. Most birds in North America are considered migratory under one or more of the MBT Conventions. The Executive Order mandates that all Federal agencies cooperate with the FWS to increase awareness and protection of the nation's migratory bird resources. Each agency is supposed to have developed an MOU with FWS stating how it intends to cooperate. Reclamation is in the process of finalizing an MOU with FWS, which includes provisions for analyzing Reclamation's effect on migratory birds.

3.5.1.1 Rare and Sensitive Species

Rare and sensitive species listed by the FWS as occurring in one or more of the counties in which the RMP Study Area occurs and that may be present in the Study Area are listed in Table 3.5-1. Expected presence in the Study Area is based on habitat suitability, occurrence in similar habitats at the nearby Minidoka NWR, and published literature including Groves et al.

(1997). Other rare or sensitive species listed by the FWS for these counties but that are not expected to occur in the RMP Study Area are not included in Table 3.5-1. With few exceptions, there are no data regarding the occurrence of rare and sensitive species or their habitats on Reclamation parcels.

TABLE 3.5-1
Rare and Sensitive Wildlife Species Listed by FWS for Counties in RMP Study Area Containing Reclamation Parcels

Species	Potential Occurrence by County[a]			Known Status in RMP Area
	CAS	JER	MIN	
Mammals				
Yuma myotis *(Myotis yumanensis)*				Often associated with water, ranges throughout southern Idaho. Likely near the Snake River and possible drain water wetlands.
Long-eared myotis *(Myotis evotis)*	X			More common in forested areas but may be present in riparian habitat along the Snake River
Western small-footed myotis *(Myotis ciliolabrum)*	X			Occurs in arid areas especially associated with cliffs; this habitat occurs on some of the western parcels along the Snake River
Townsend's big-eared bat *(Corynorhinus townsendii)*	X			Occurs throughout southern Idaho in shrub/steppe, among other habitats. Suitable habitat on larger parcels of native habitat.
Birds				
Columbian sharp-tailed grouse *(Tympanuchus phasianellus)*				Not likely in the RMP parcels but there has been a lek on the Minidoka NWR just east of the RMP Study Area since 1998.
Greater sage-grouse *(Centocercus urophasianus)*	X	X	X	Sign observed at one of the western parcels and suitable, but not high quality habitat present
Trumpeter swan *(Cygnus buccinator)*	X		X	Occasional at Minidoka NWR so possible, though rare, on larger Study Area drain water wetlands
Northern goshawk *(Accipiter gentilis)*	X			Present along the Snake River, especially during winter and migration. Expected along the Snake River parcels with trees.
Ferruginous hawk *(Buteo regalis)*	X			Suitable foraging habitat present on the Study Area and on the Minidoka NWR
Black tern *(Chlidonias niger)*	X			Migrates through the Minidoka NWR for a brief period in September, so could occur at the larger drain water wetlands. Has not nested at the Minidoka NWR and is unlikely to nest at the drain water wetlands because of limited habitat.
Long-billed curlew *(Numenius americanus)*	X	X	X	Likely present, and may nest, especially near larger wetland areas
Western burrowing owl *(Speotyto cunicularia hypugaea)*	X			May be present, uncommon on the Minidoka NWR

TABLE 3.5-1
Rare and Sensitive Wildlife Species Listed by FWS for Counties in RMP Study Area Containing Reclamation Parcels

Species	Potential Occurrence by County[a]			Known Status in RMP Area
	CAS	JER	MIN	
Invertebrates				
Idaho Dunes tiger beetle *(Cicindela arenicola)*			X	Known to be present on at least one parcel
Amphibians and Reptiles				
Northern leopard frog *(Rana pipiens)*	X	X	X	Likely present near wetlands and along the Snake River; fairly common around Lake Walcott.
Common garter snake *(Thamnophis sirtalis)*	X	X	X	Likely present along the Snake River, canals and drains, and drain water wetlands
Short-horned lizard *(Phrynosoma douglassi)*	X	X	X	Likely present on some larger parcels with native vegetation; have been observed by FWS on the Minidoka NWR.

[a]Counties: CAS=Cassia; JER=Jerome; MIN=Minidoka

Source: Compilation of available data by CH2M HILL

3.5.2 Environmental Consequences

3.5.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Many of the beneficial and adverse impacts of the RMP alternatives on wildlife would result directly from changes in vegetation on the Reclamation parcels. Actions that degrade native plant communities or provide greater human access would be detrimental to wildlife. Actions that protect or improve native habitat would be beneficial for wildlife. Impacts are related actions that would improve or degrade native plant communities such as different levels of weed control and livestock grazing, ORV access and ad hoc motorized use of the parcels, habitat rehabilitation, and especially actions that increase or decrease the risk of fire. These topics will be addressed briefly below as they relate to wildlife. However, the reader is directed to Section 3.4, *Vegetation*, for discussion of changes in vegetation that affect wildlife habitat.

Several actions that would be continued under Alternative A have the potential of impacting wildlife habitat values because protection of natural resource values is not a priority when new actions are considered and implemented. Potential impacts include direct habitat loss, habitat fragmentation, and disturbance of wildlife. These RMP actions include new agricultural leases, siting of sand and gravel extraction sites, the location of drain water wetlands, and the lack of management and enforcement of ad hoc camping and motorized vehicle use of the parcels. Natural resource protection would not be a priority in the future under Alternative A and lands with higher wildlife habitat values could be converted to other uses. The area of Reclamation lands that would be directly impacted by these activities is relatively low, probably less than 500 acres. Indirect impacts would affect larger areas at the sites of any of the above activities and fires have the potential of adversely impacting much larger areas of native wildlife habitat.

No new grazing leases would be considered. This would protect parcels with higher habitat values from degradation by livestock. Parcels that are dominated by cheatgrass would not be grazed, which may increase the potential for fire on these parcels that could spread to areas of better habitat. However, most of the parcels are separated by farmed land so the threat of a fire in a cheatgrass stand spreading to a different parcel with good habitat is probably fairly low.

Alternative A includes development and implementation of a comprehensive fire management plan, including agreements for fire prevention, fuels management, and land rehabilitation in an effort to protect, restore, and enhance the natural resource values of RMP lands. An element of this plan would be identification of parcels with high habitat values so that fire suppression and vegetation rehabilitation efforts could be focused on these sites. This would reduce the risk that parcels with higher habitat values would be totally destroyed by fire and would improve the prospects of restoration of habitat values following fires.

Weed control efforts would not increase substantially compared to current efforts. This is likely to result in the continued slow spread of weeds on Reclamation parcels, resulting in degraded wildlife habitat values and an increased risk of fires.

On parcels to be retained, Reclamation may renew management contracts with IDFG. Renewed contracts would have new terms defining management responsibilities and monitoring requirements. New contract terms would likely result in some degree of wildlife habitat improvement compared to current conditions if water and funding are available to implement habitat improvement measures.

Reclamation would begin to enforce existing regulations regarding motorized vehicle use of the parcels through a program to educate the public that motorized vehicle use is prohibited on Reclamation lands off of designated roads. This may help to slightly reduce some potential future degradation of wildlife habitat values and the risk of fire. However, lack of an Access Management Plan that would include designation of open and closed roads and trails to protect natural resource values and enforcement of closures, as in Alternative B, would mean that wildlife habitat values would continue to be degraded by ORV use and that the potential for human-caused fires would not decrease substantially.

Alternative A does not include any management or oversight of ad hoc day use or camping. These activities degrade wildlife habitat values through disturbance of animals, trampling and removal of vegetation, and human-caused fires. Although the extent of these ongoing impacts is not known, they would continue in the future.

By far the greatest potential current and future impact of ad hoc day use, camping, and ORV use would result from fires in areas with higher wildlife habitat values. Fires result in the immediate loss of sagebrush and other shrubs that are essential for sagebrush obligate species such as sage grouse, pygmy rabbits, and Brewer's sparrows as well as many other wildlife species. As noted in Section 3.4, *Vegetation*, cheatgrass enables a regime of frequent fires, which permanently removes sagebrush cover and perpetuates cheatgrass dominance on these sites, resulting in the loss of virtually all wildlife habitat value.

Habitat for migratory birds would likely be degraded by actions that would continue under Alternative A. Direct habitat losses would result from conversion of lands to other uses and ORV use. As noted above, the greatest potential migratory bird habitat losses would result from fires in areas with higher wildlife habitat values.

Sensitive Species. Sensitive wildlife species are often habitat specialists, requiring specific habitat components and multiple vegetative layers such as shrubs as well as native grasses and forbs. Populations of sensitive species are generally in jeopardy because these species are more sensitive to disturbance, habitat loss and degradation, and habitat fragmentation than species that can occupy a broad range of habitats. The fact that protection of natural resource values is not a priority under Alternative A means that sensitive wildlife species and their habitats could be adversely affected by actions that would continue under Alternative A. The greatest threats to sensitive species in the RMP Study Area are disturbance during the breeding season, habitat loss and fragmentation from ORV use, and especially human-caused fires associated with careless human use of Reclamation parcels. Also, the lack of specific protection of natural resource values during the consideration of new agricultural leases, siting of sand and gravel extraction sites, and the location of drain water wetlands means that sensitive species and their habitats could be adversely affected by these actions.

Mitigation and Residual Impacts (Alternative A)

No mitigation measures are proposed and the residual impacts are as described above.

3.5.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Alternative B focuses on the protection and enhancement of natural resource values. This would be a priority for all activities, which would minimize or avoid many of the impacts to wildlife associated with Alternative A. Several actions under Alternative A would only be implemented under Alternative B if they did not result in impacts to natural resources, including wildlife and wildlife habitat. These actions include new agricultural leases, consideration of new grazing leases, siting of sand and gravel extraction sites, the location of drain water wetlands, better management and enforcement of ad hoc camping, day use, and ORV use to protect natural resources, and efforts to eliminate current and prevent future trespass and encroachment onto Reclamation lands. The natural resource protection priority under Alternative B generally means that lands with higher wildlife habitat values would not be converted to or degraded by other uses.

Livestock grazing would be considered on about 330 acres with native vegetation, that is, parcels where cheatgrass is a component of sagebrush dominated landscapes. Grazing on these parcels would degrade wildlife habitat values by removing native plants, including grasses and forbs.

Reclamation would attempt to improve wildlife habitat values at existing and new drain water wetlands by seeking out cooperating partners. If successful, these efforts would increase and improve wildlife habitat at and around drain water wetlands, probably also including better weed control.

Fire management would be the same as Alternative A but greater emphasis would be placed on habitat improvements following fire, general land disturbance, and weed control. Restoration of

native habitats would be a higher priority and would likely focus on those parcels with healthy native plant communities that are threatened with weed infestations.

On parcels to be retained, Reclamation may negotiate new management contracts with IDFG. New contracts would be considered on any parcel with higher actual or potential wildlife habitat values and would have terms defining management responsibilities and monitoring requirements. Parcels would be identified and prioritized based on wildlife habitat values and/or potential water availability with water rights legally appropriated. Because more parcels would be considered for IDFG management compared to Alternative A, habitat improvements could occur on more land if funding is available.

Alternative B includes development and implementation of an Access Management Plan to control and restrict motorized vehicle use of parcels with higher wildlife habitat values. Vehicular access would be most restrictive under this alternative to protect natural resources. Compared to Alternatives A or C, reduced vehicular access is likely to result in less driving off-road into areas with native vegetation, which is the highest value wildlife habitat, and fewer human-caused fires that destroy habitat. This would lessen the potential that parcels with native vegetation would be degraded or destroyed by fire and other habitat degradation.

Potential migratory bird habitat loss would be less than under Alternative A because of the higher priority on protection of natural resources. Potential losses resulting from human-caused fires would also be lower because of better control of ad hoc use of Reclamation parcels and more effective weed control.

Sensitive Species. The priority for natural resource protection extends to rare and sensitive species. Alternative B also includes unspecified efforts to recover rare species. Therefore, all actions that have the potential of adversely affecting sensitive species would only be implemented after appropriate habitat evaluations followed by site clearances, if necessary, to assure that sensitive species and their habitats are not impacted. This would be a two-step process. First, it would be determined if suitable habitat types for sensitive species are present in the vicinity of a proposed action. If suitable habitat is present, then site clearances following established survey protocols would be conducted before actions are implemented.

Mitigation and Residual Impacts (Alternative B)

Mitigation measures that would benefit wildlife habitat were described in Section 3.4, *Vegetation*. These measures would reduce the potential for impacts on higher value wildlife habitat on about 330 acres that would be considered for grazing. Other residual impacts would be the same as described above.

3.5.2.3 Alternative C: Multiple Use Emphasis

Avoidance of impacts on natural resources, including sensitive species, would not be a priority under Alternative C. Therefore, actions such as new agricultural leases, sand and gravel extraction, more limited weed control, and less management of ORV use and the resulting higher fire potential have a higher likelihood of adversely affecting wildlife and habitat than under Alternative B. Many of the impacts would be similar to those described for Alternative A and as described for Alternative C in Section 3.4, *Vegetation*.

Under Alternative C, livestock grazing would be considered on 10,505 acres, including 567 acres of perennial grasslands compared to 209 acres under Alternative B and none under Alternative A. In addition, this alternative could allow grazing on 1,369 acres of native sagebrush grassland vegetation. Wildlife habitat would be degraded by livestock grazing on parcels with native vegetation because natural resource protection is not a priority under Alternative C. More acres of wetlands and playas could also be grazed than under Alternatives A or B.

Drain water wetlands would only be created as local funding is available, but no additional efforts to improve wildlife habitat values would be implemented. Funding to rehabilitate and improve wildlife habitat would be restricted to funds available for fire rehabilitation. This would mean less restoration or rehabilitation of wildlife habitat than under Alternative B. Under this alternative less re-seeding of disturbed lands would either require an escalated level of weed control or result in more weed-infested lands because spraying alone without rehabilitating the site is an ineffective means of controlling weeds over the long term, resulting in additional degraded wildlife habitat and higher fire potential.

No management of ad hoc camping at dispersed sites, as well as no priority for natural resource protection and more open roads within the Access Management Plan, would allow continued degradation of wildlife habitat and substantially increase the risk of human-caused fires compared to Alternative B.

Potential impacts on migratory birds would be similar to those described for Alternative A.

Sensitive Species. Alternative C does not include specific provisions to avoid impacts to sensitive species or to actively work toward their recovery. Therefore, impacts on sensitive species or their habitat could result from a number of actions that would be implemented under Alternative C. Potential impacts would be similar to those described under Alternative A.

Mitigation and Residual Impacts (Alternative C)

As described in Section 3.4, *Vegetation*, because of the substantially larger area that would be considered for grazing, the limited funds available to administer such a program, and the focus of Alternative C on multiple use, it is unlikely that the mitigation measures described under Alternative B could be implemented and enforced under Alternative C. Therefore, much of the potential degradation of wildlife habitat on parcels that are grazed under Alternative C would not be avoided. Furthermore, the focus of this alternative on multiple uses means that additional mitigation measures are not included. Therefore, impacts described above would not be avoided and the residual impacts would be the same as described.

3.6 Aquatic Biology

3.6.1 Affected Environment

The Snake River below Minidoka Dam near Burley is predominantly a good quality fishery when water conditions are optimal (Personal Communication, Doug Megargle, May 29, 2003). The fishery is directly affected by seasonally fluctuating water levels and flows, and its quality typically deteriorates during dry periods. Poor water quality conditions are predominantly caused by irrigation return flows, high water temperatures, and algal blooms (*ibid.*). Water quality issues are exacerbated during periods of minimal flow.

The fishery is important to some and contains trophy size trout, but is generally considered to be a moderate use area for sport fishing (*ibid.*). Trout and bass are the main game species present in the Snake River below Minidoka Dam and fishing is permitted all year. Although some parts of the Snake River are stocked, this reach supports a self-sustaining trout population and is not supplemented (*ibid.*). This trout population is often affected by fluctuating water levels and flows, thriving during good water years and declining during dry periods (*ibid.*). Trout species found in this area include rainbow trout (*Oncorhynchus mykiss*), brown trout (*Salmo trutta*), cutthroat trout (*Oncorhynchus clarki*), and rainbow trout—cutthroat trout hybrids (IDFG 2001).

Warm water game fish species present in this area of the Snake River include largemouth bass (*Micropterus salmoides),* smallmouth bass (*Micropterus dolomieu*), bluegill (*Lepomis macrochirus*), brown bullhead (*Ameiurus nebulosus*), channel catfish (*Ictalurus punctatus*), and yellow perch (*Perca flavescens*) (IDFG 2001). The bass population, which is also self-sustaining, is more successful at maintaining itself and is less affected by poor quality water conditions than the trout population.

The only aquatic habitat present on the Study Area parcels are the drain water wetlands created to evaporate irrigation drain water. These are temporary in nature and only exist when there is excess irrigation drain water. The temporary nature of these wetlands prevents their use by all aquatic species except perhaps a few frogs and aquatic insects.

3.6.1.1 Rare and Sensitive Species

No state sensitive fish or other aquatic species were identified as occurring within the Snake River immediately below Minidoka Dam (IDFG 2003 and FWS 2003a) and none occur on any of the parcels. Three snail species listed as Federally threatened or endangered and occurring within Minidoka and Cassia Counties are addressed in Section 3.7, *Threatened, Endangered, Candidate, and Proposed Species*.

3.6.2 Environmental Consequences

The RMP would not affect operation of Minidoka Dam or water releases into the Snake River below the dam, which are controlled by water delivery contracts. Therefore, there would be no impacts on aquatic resources of the Snake River under any of the alternatives.

3.6.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Reclamation's regional-level Wetland Program was not funded for fiscal year 2004 and available funding for additional wetland development will be greatly reduced. Existing drain water wetlands that provide temporary aquatic habitat for a few species would not be affected by the elimination of funding. A few more drain water evaporation wetlands may still be developed if local office funds are available, but this is uncertain. If additional drain water wetlands are developed, these would provide more temporary aquatic habitat for frogs and aquatic insects.

Mitigation and Residual Impacts (Alternative A)

No mitigation measures are required and there would be no residual impacts.

3.6.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Implementation of Alternative B may result in the development of a few additional drain water wetlands compared to Alternative A if funding partners can be found. Similar temporary aquatic habitat benefits would occur. Additionally, there would be a greater focus under Alternative B on implementing actions specifically to improve/increase wetlands habitat value for wildlife through planting of aquatic plants. Habitat improvements may be implemented at some existing or future wetlands under Alternative B if funding partners can be found. These habitat improvements would improve temporary habitat for frogs and aquatic insects.

Mitigation and Residual Impacts (Alternative B)

No mitigation measures are required and there would be no residual impacts.

3.6.2.3 Alternative C: Multiple Use Emphasis

Implementation of Alternative C may have the same minor benefits as the No Action Alternative as Reclamation continues to create drain water wetlands to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis. However, there would be less emphasis on improving natural resource values of existing or future drain water wetlands.

Mitigation and Residual Impacts (Alternative C)

No mitigation measures are required and there would be no residual impacts.

3.7 Threatened, Endangered, Candidate, and Proposed Species

3.7.1 Affected Environment

The RMP Study Area is located within parts of four counties. This area also includes a limited number of plant communities and cover types, compared to the wide variety of these present in the four counties. Topographic variation within the RMP Study Area is also limited compared to that of these four counties. The FWS web site for Idaho (FWS 2003a) lists all of the listed, proposed, and candidate species for each of the counties. These species are listed in Table 3.7-1, along with information regarding the species' known or expected status within the RMP Study Area. Species that are known or expected to occur in the Study Area or that occur near the Study Area are discussed below. Threatened and endangered species, listed by the ESA, along with candidate and proposed species that do not occur in the Study Area, are only discussed in Table 3.7-1. Expected presence in the Study Area is based on habitat suitability, occurrence in similar habitats at the nearby Minidoka NWR, and published literature including Groves et al. (1997).

3.7.1.1 Wildlife

Bald Eagle

Bald eagles were listed as endangered on March 11, 1967 (32 Federal Register [FR] 4001). Its recovery allowed a reclassification to threatened on July 12, 1995 (60 FR 35999-36010). Bald eagles are closely associated with lakes and large rivers in open areas, forests, and mountains. They nest near open water in late-successional forest with many perches or nest sites, and low levels of human disturbance (McGarigal 1988, Wright and Escano 1986). The nest site is usually within one-quarter to 1 mile of open water with less than 5 percent of the shore developed within 1 mile. Perches are generally at the edge of forest stands, near foraging areas, or near the nest tree and have panoramic views of surrounding areas. They need large trees along rivers with good visibility, preferably snags, for perching. Protected deep ravines with large trees are often used as night roosts. Critical winter habitat is located near food sources, such as lakes, rivers, and uplands with big game winter range. These sites have adequate perch sites and sheltered roost sites. Human activity may be a major factor limiting bald eagle distribution on wintering habitats (Steenhof 1976).

One pair of bald eagles nest on the Minidoka NWR (Personal Communication, Steve Bouffard, June 16, 2003). There are typically 10 to 20 bald eagles along the Snake River within the refuge during the winter until the water freezes. When the reservoir freezes, the eagles at the west end of the reservoir move downstream below the dam, where they continue to feed on waterfowl and fish. They generally roost in large cottonwoods. Bald eagles would not be expected to use any of the parcels that are not located immediately adjacent to the Snake River. Parcels along the river would only be used if there are large trees suitable for perching and if these trees are located near areas that support suitable and accessible prey species including fish or waterfowl.

TABLE 3.7-1
Threatened and Endangered Species, Proposed Species, Candidate Species, and Species Petitioned for ESA Listing for Counties in RMP Study Area Containing Reclamation Parcels

Species[a]	Potential Occurrence by County[b]			Expected or Known Status in RMP Area
	CAS	JER	MIN	
Listed Species				
Mammals				
Canada lynx (LT) *(Lynx canadensis)*	X			No suitable habitat present in RMP area or on adjacent lands
Gray wolf (XN) *(Canis lupus)*	X	X	X	No suitable habitat present in RMP area or on adjacent lands
Birds				
Bald eagle (LT) *(Haliaeetus leucocephalus)*	X	X	X	Present along the Snake River especially during winter and spring migration; no known nests in the RMP Study Area
Invertebrates				
Bliss Rapids snail (LT) *(Taylorconcha serpenticola)*	X	X	X	Occurs downstream of RMP Study Area reach of the Snake River—see text
Snake River physa snail (LE) *(physa natricina)*	X	X	X	Occurs downstream of RMP Study Area reach of the Snake River—see text
Utah valvata (LE) *(Valvata utahensis)*	X	X	X	Possible, though not expected in RMP Study Area reach of the Snake River—see text.
Fish				
Bull trout (LT) *(Salvelinus confluentus)*				Not present in the Study Area reach of the Snake River
Plants				
Ute ladies'-tresses (LT) *(Spiranthes diluvialis)*	X	X	X	Not expected to occur on RMP lands that are not adjacent to the Snake River because these wetlands did not exist before project implementation and were created as a result of the project and irrigation. Wetlands on the few parcels along the Snake River have a low potential for Ute ladies'-tresses.
Proposed/Candidate				
Birds				
Yellow-billed cuckoo (C) *(Coccyzus americanus oxidentalis)*	X	X	X	Suitable riparian habitat may exist along the Snake River
Amphibians				
Spotted frog (*Rana luteiventris)*	X	X	X	Does not occur in this portion of southern Idaho (Groves et al. 1997)

TABLE 3.7-1
Threatened and Endangered Species, Proposed Species, Candidate Species, and Species Petitioned for ESA Listing for Counties in RMP Study Area Containing Reclamation Parcels

Species[a]	Potential Occurrence by County[b]			Expected or Known Status in RMP Area
	CAS	JER	MIN	
Mammals				
Pygmy rabbit (PE) *(Brachylagus idahoensis)*	X	X	X	Possibly seen on one of the parcels. Pygmy rabbits, active burrows, and fresh sign observed on two parcels in 2003. Suitable habitat may be present on several other parcels.
Plants				
Christ's paintbrush (*Castilleja christii*)	X			This rare paintbrush covers approximately 200 acres near the summit of Mount Harrison on the Sawtooth National Forest. This is the only known population in the world (Moseley 1996). It does not occur in the RMP Study Area.

[a]Species: C = Candidate; P= Proposed for listing by FWS; LE = Listed endangered; LT = Listed threatened; XN = Experimental/non-essential population; PE Petitioned for listing under ESA
[b]Counties: CAS=Cassia; JER=Jerome; MIN=Minidoka

Source: FWS 2003 and compilation of available data by CH2M HILL

Yellow-billed Cuckoo

A petition to list this species was filed in 1998. The petitioners stated that "habitat loss, overgrazing, tamarisk invasion of riparian areas, river management, logging, and pesticides have caused declines in yellow-billed cuckoo." In the 90-day finding published on February 17, 2000 (FR 65[33]: 8104-8107), FWS indicated that these factors may have caused loss, degradation, and fragmentation of riparian habitat in the western United States, and that loss of wintering habitat may be adversely affecting the cuckoo. The yellow-billed cuckoo has status as a Candidate species for protection under the ESA. In July 2001, FWS announced a 12-month finding for a petition to list the yellow-billed cuckoo as threatened or endangered in the western United States. As of June 2003, this species continues to have Candidate status (67 FR 4065740679).

This secretive bird is a neotropical species that breeds in North America and winters primarily south of the U.S.-Mexico border. Cuckoos may go unnoticed because they are slow-moving and prefer dense vegetation. In the West, they favor areas with a dense understory of willow (*Salix* spp.) combined with mature cottonwoods (*Populus* spp.) and generally within 100 meters of slow or standing water (Gaines 1974; Gaines 1977; Gaines and Laymon 1984). They appear to be dependent on the combination of a dense willow understory for nesting and a cottonwood overstory for foraging. The yellow-billed cuckoo is also known to use non-riparian, dense woody vegetation at times but these habitats are not preferred (Finch 1992; DeGraff et al. 1991). It feeds on insects, mostly caterpillars, but also beetles, fall webworms, cicadas, and fruit (especially berries). Populations seem to fluctuate dramatically in response to fluctuations in caterpillar abundance. These fluctuations are erratic, but not necessarily cyclic (Kingery 1981).

Most Idaho records are of isolated, non-breeding individuals (FWS 1985). Although occasional reports of this bird are noted, including several birds at Lawyers Creek in Lewis County in 1979 and six at Cartier Wildlife Management Area in 1980, no nesting attempts or young have been observed and breeding populations of yellow-billed cuckoos in Idaho are believed to be extirpated (Reese and Melquist 1985). Suitable habitat for the cuckoo exists in the more dense riparian stands along the Snake River within the RMP reach, some of which may occur on a few of the parcels bordering the river. None of the upland parcels provide suitable cuckoo habitat.

Pygmy Rabbit

The FWS was petitioned to list the pygmy rabbit as a threatened or endangered species throughout its range on April 14, 2003. Pygmy rabbits are uniquely dependent on sagebrush, which comprises up to 99 percent of its winter diet. It is one of only two North American rabbits that digs its own burrows. It is a strict sagebrush obligate, inhabiting sagebrush dominated habitats in the Intermountain Region and Great Basin. The historical range of the pygmy rabbit encompassed more than 100 million acres in 8 western states, including Idaho. Pygmy rabbits are one of a very few species, including pronghorn antelope and sage grouse, that can ingest large amounts of sagebrush leaves laden with terpenoids without major digestive disturbances and death (White et al. 1982, Katzner 1994).

This combination of small body size, specialized feeding strategies, and unique habitat requirements are unusual among leporids. Pygmy rabbits have the greatest surface area to volume ratio (and thus heat loss) of any rabbit species in their known geographic range and endure harsh climatic extremes characterized by cold winters and dry summers where drought is common (Katzner 1994).

The pygmy rabbit is an extreme habitat specialist at all levels, from the landscape level to placement of burrows and use of surrounding areas (Gabler 1997, Heady 1998, Heady et al. 2001). It is closely associated with native sagebrush stands, including clumps of tall dense sagebrush coupled with deep loose textured soils for burrow construction. Herbaceous vegetation is also important to pygmy rabbits (Lyman 1991), which augment their sagebrush diet with forbs and grasses. Pygmy rabbits choose tall dense sagebrush for their burrows. Wisdom et al. (2000) assumed that this vegetation cover, which provides protection from predators, is important and that areas of bare ground would be avoided. Burrows are typically occupied by one individual that has particular feeding use areas. It is found in aggregations or colonies in areas of suitable habitat.

Pygmy rabbits are slow and vulnerable to predators in open areas. They elude predators by maneuvering in dense shrub cover (66 FR 231). Big sagebrush provides both essential year-round food and critical protection from predation. Habitat fragmentation readily isolates populations, as disruptions in sage brush cover and open areas provide barriers to dispersal. The pygmy rabbit has very limited dispersal abilities and is reluctant to cross open areas, amplifying the effects of fragmentation.

A possible pygmy rabbit sighting was noted by CH2M HILL biologists on one of the Reclamation parcels during vegetation mapping in the fall of 2002. Pygmy rabbits, active burrows, and fresh sign were seen at two locations on one of the larger parcels in the western third of the Study Area during surveys conducted by a Reclamation biologist in 2003. Habitat on

some of the larger Reclamation parcels that support predominantly native vegetation may also be suitable for pygmy rabbits but has not been searched. As noted above, movement across agricultural or cheatgrass areas between parcels of suitable habitat is unlikely. Therefore, any larger parcels that contain occupied or suitable habitat is very important to pygmy rabbits. Pygmy rabbits present on the parcels would likely be isolated from other Reclamation parcels or larger blocks of suitable habitat on BLM lands to the west and north.

3.7.1.2 Fish and Other Aquatic Species

No Federally-listed proposed, candidate, threatened or endangered fish species were identified as occurring within the Snake River immediately below Minidoka Dam (IDFG 2003 and FWS 2003a).

Three snail species are listed as Federally threatened or endangered and occur within Minidoka and Cassia Counties. The listed species include the Bliss Rapids snail (*Taylorconcha serpenticola*), Federally threatened; the Utah valvata snail (*Valvata utahensis*), Federally endangered; and the Snake River physa snail (*Physa natricina*), Federally threatened (FWS 2003b). Remnant snail populations inhabit a small fraction of their historical range, and mostly exist near springs and other high quality water areas of the Middle Snake River with free-flowing, cool water. In 1992, the FWS reported known and suspected Utah valvata snail populations near Lake Walcott and near Burley, respectively, and suspected Snake River physa populations near Lake Walcott (Reclamation 1998a). More recent distribution estimates described in the FWS Snake River Aquatic Species Recovery Plan (1995) and by the FWS (2003b) for each of the identified snail species are as follows:

- Bliss Rapids snail—Found in the main stem of the Snake River from King Hill to Banbury Springs, Idaho, well downstream of the RMP Study Area, and in several unpolluted springs adjacent to the Snake River, including Thousand Springs, Banbury Springs, Box Canyon Spring, and Niagra Springs.
- Snake River physa snail—Found only at a few main stem Snake River locations, mostly in the Hagerman and King Hill reaches, which are also well downstream of the Study Area, with possibly a third colony immediately downstream of Minidoka Dam where live specimens were collected in 1987.
- Utah valvata snail—Found only in a few springs and mainstem sites from American Falls Reservoir to the Hagerman Valley, Idaho, including immediately downstream and upstream (in Lake Walcott) of Minidoka Dam, which includes the Study Area reach of the Snake River.

These three snail species are typically associated with free-flowing, cool water environments, which have been greatly modified in the Snake River (FWS 1995). However, as noted above, both the Utah valvata snail and Snake River physa snail are reported to occur immediately downstream of Minidoka Dam (FWS 1995), while the Utah valvata snail is reported to occur throughout Lake Walcott, which is not considered cool or free-flowing water according to the FWS (comment letter from Steve Boufford, Appendix C). The snails are vulnerable to continued adverse habitat modification and deteriorating water quality from one or more of the following: hydroelectric development, peak-loading effects from existing hydroelectric project operations,

water withdrawal and diversions, water pollution, and inadequate government regulatory mechanisms (Reclamation 1998a).

3.7.1.3 Plants

Ute Ladies'-tresses Orchid

The Ute ladies'-tresses orchid (*Spiranthes diluvialis*) is the only Federally protected plant species that may occur in or near the Snake River in the RMP Study Area. It typically occupies floodplains and wet meadows with little overhanging shrub or tree canopy. Wetland and riparian habitats such as springs, wet meadows, and point bars within river meanders are potential habitat. Ute ladies'-tresses orchids have been found in southeast Idaho and eastern Washington and may occur in suitable habitats between these locations. The most suitable potential tress habitat would occur in riparian communities along the Snake River. Wetlands within the Minidoka North Side area that are not adjacent to the Snake River would probably not be considered as potential habitat because these areas were only developed recently. No searches for this species have been conducted on Reclamation lands.

3.7.2 Environmental Consequences

One of the commitments of each of the alternatives is that Reclamation will implement any necessary actions to avoid impacts to and facilitate recovery of ESA-listed species, including proposed and candidate species. Therefore, any permitted actions under all of the alternatives would only be allowed after appropriate site clearances and necessary changes to proposals are made so that potential impacts to listed, proposed, and candidate species would be avoided. If site clearances indicate that a protected species may be present, potential impacts would be avoided by either moving the location of the proposed activity or by not issuing the required permit.

3.7.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Wildlife

Bald eagles using the Snake River below Minidoka Dam or any of the Reclamation parcels bordering the river would not be directly or indirectly affected by any of the actions that would continue under Alternative A. Alternative A would have no effect on bald eagles. Similarly, none of the actions that would continue under Alternative A would have any direct or indirect effects on actual or potential yellow-billed cuckoo habitat. The ESA determination is no effect for bald eagles and yellow-billed cuckoos.

Continued unauthorized use of dirt roads and trails by motorized vehicles and ad hoc camping have the potential of adversely affecting pygmy rabbit habitat. Reclamation would enforce regulations regarding motorized vehicle use and educate the public regarding regulations that prohibit vehicles off designated roads in areas of known or potentially suitable pygmy rabbit habitat. Reclamation would prioritize enforcement actions and immediately focus its initial efforts on those parcels that harbor pygmy rabbits and on parcels with better stands of native vegetation including sagebrush so that potential pygmy rabbit habitat is not further degraded by motorized vehicles.

Fish and Other Aquatic Species

The RMP would not affect operation of Minidoka Dam or water releases into the Snake River below the dam, which are controlled by water delivery contracts. There are no permanent aquatic resources present on any of the parcels. Therefore, no adverse or beneficial impacts to protected fish or aquatic resources would result from implementation of Alternative A.

Plants

None of the management actions planned for Alternative A would affect potential Ute ladies'-tresses orchid habitat along the Snake River. Therefore, Alternative A would have no effect on the Ute ladies'-tresses orchid.

Conservation Measures and Residual Impacts (Alternative A)

No additional conservation measures are proposed to further minimize impacts on listed, candidate, or proposed species, except for the pygmy rabbit. Reclamation will continue to conduct informal field surveys of its lands to identify those that may harbor pygmy rabbits or suitable habitat. In the event of a listing, formal field surveys of all potential pygmy rabbit habitat on Reclamation lands in the RMP Study Area would be conducted. Reclamation actions and allowable public actions including unauthorized vehicle use that may affect pygmy rabbits or suitable pygmy rabbit habitat would be altered or eliminated so as to avoid impacts to pygmy rabbits or suitable pygmy rabbit habitat. These actions would substantially minimize, but not completely eliminate, the potential for impacts on pygmy rabbits and actual or potential pygmy rabbit habitat. Residual impacts, including those from ad hoc camping and day use, would be as discussed above.

3.7.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Wildlife

As stated for Alternative A, there would be an ESA determination of no effect to bald eagles or actual or potential habitat.

Improvements at Bishop's Hole including parking spaces would be implemented without disturbing any existing riparian vegetation. Regular human use already occurs at the site and this would not change. Therefore, there would be no adverse effects on yellow-billed cuckoos or their actual or potential habitat. The ESA determination is no effect for yellow-billed cuckoos.

Potential adverse effects on pygmy rabbits would be similar to those described for Alternative A. However, site clearances following established protocols would be conducted on all parcels with potentially suitable habitat before any of the activities that may be undertaken or permitted under Alternative B would be implemented. Pygmy rabbit and pygmy rabbit habitat surveys will be conducted on relevant parcels resulting from work/project proposals. Site clearances will be conducted for the purpose of determining the presence of pygmy rabbits and suitable pygmy rabbit habitat. If pygmy rabbits, or suitable habitat are found, all Reclamation activities and allowable public activities will be evaluated and conducted in a manner so as to protect and preserve the rabbits and their habitat. This includes, but is not limited to, the following: modifying project designs, modifying techniques, project/work relocation, project/work cancellation, and limiting public and vehicle access. In addition, habitat enhancement and

protection measures will be implemented on parcels where pygmy rabbits, or pygmy rabbit sign, are found.

Continued unauthorized use of dirt roads and trails by motorized vehicles and ad hoc camping have the potential of direct and indirect adverse impacts on pygmy rabbit habitat. Reclamation would develop and enforce an Access Management Plan that prohibits motorized vehicle access into parcels with high habitat values, including areas of actual and potential pygmy rabbit habitat. Reclamation would prioritize road closures and enforcement actions and immediately focus its initial efforts on those parcels with better stands of native vegetation including sagebrush so that potential pygmy rabbit habitat is not further degraded by motorized vehicles.

Fish and Other Aquatic Species

The RMP would not affect operation of Minidoka Dam or water releases into the Snake River below the dam, which are controlled by water delivery contracts. There are no aquatic resources present on any of the parcels. Therefore, no adverse or beneficial impacts on protected fish or aquatic resources would result from implementation of Alternative B.

Plants

The Ute ladies'-tresses orchid is the only Federally protected plant species that may occur on Reclamation lands in or near the RMP Study Area. Alternative B of the RMP does not include any plans to modify or disturb lands along the Snake River that could be suitable for Ute ladies'-tresses orchids. Therefore, there would be no effects to this species. If some unforeseen need to disturb potential Ute ladies'-tresses orchid habitat arises during the term of this RMP Reclamation would determine if the habitat is suitable and if orchids are present following established protocols. In areas of potential habitat, Reclamation would either change the location of a proposed facility or not construct the facility. Implementation of these measures would avoid all potential impacts on the Ute ladies' tresses orchid and potential habitat and result in an ESA determination of no effect to this species. Reclamation would coordinate with FWS before undertaking actions that would be considered exceptions to this habitat avoidance policy.

Conservation Measures and Residual Impacts (Alternative B)

No additional conservation measures are proposed to further minimize impacts on listed, candidate, or proposed species except for the pygmy rabbit. Reclamation will continue to conduct informal field surveys of its lands to identify those that may harbor pygmy rabbits. In the event of a listing, formal field surveys of all potential pygmy rabbit habitat in the RMP Study Area would be conducted. All proposed activities to be conducted on sites where pygmy rabbits or their sign have been observed or sites with suitable habitat, will be evaluated for potential impacts to pygmy rabbits and their habitat. Reclamation actions and allowable public actions including unauthorized vehicle use that may affect pygmy rabbits or suitable pygmy rabbit habitat would be altered or eliminated so as to avoid impacts to pygmy rabbits or suitable pygmy rabbit habitat. These actions would substantially minimize, and eventually avoid all potential impacts on pygmy rabbits and actual or potential pygmy rabbit habitat. Residual impacts, including those from ad hoc camping and day use, would be as discussed above.

3.7.2.3 Alternative C: Multiple Use Emphasis

Wildlife

All of the impact avoidance measures described for Alternative A would also be implemented under Alternative C, resulting in the same conclusions regarding potential impacts on protected wildlife species.

Fish and Other Aquatic Species

The RMP would not affect operation of Minidoka Dam or water releases into the Snake River below the dam, which are controlled by water delivery contracts. There are no aquatic resources present on any of the parcels. Therefore, no adverse or beneficial impacts on protected fish or aquatic resources would result from implementation of Alternative C.

Plants

All of the impact avoidance measures described for Alternative B would also be implemented under Alternative C, resulting in the same conclusions regarding potential impacts on Ute ladies'-tresses orchids.

Conservation Measures and Residual Impacts (Alternative C)

No additional conservation measures are proposed to further minimize impacts on listed, candidate, or proposed species. Residual impacts would be as discussed above for Alternative A.

3.8 Recreation and Access

3.8.1 Affected Environment

Recreation is an important use of Federal and private lands in the Study Area, often tied to roads and accessible water bodies. The primary water bodies in the Study Area are the Snake River and Lake Walcott. Much of the property along the river corridor is privately owned, with public access points concentrated at Lake Walcott. Several recreation facilities are located within the Study Area vicinity. Many of these facilities are associated with the Snake River and provide similar recreation opportunities, such as camping, boating, picnicking, swimming, and fishing, as those found at facilities within the Study Area. Recreation providers in the region include IDPR, BLM, IDFG, Idaho Power, Inc., and various local agencies.

3.8.1.1 Recreation Activities within the Study Area Boundary

Numerous land- and water-based recreation activities occur in the Study Area, including fishing, hunting, wildlife viewing, camping, day use (such as picnicking and swimming), boating, trail use, ORV use, skiing, and snowmobiling. Table 3.8-1 provides an overview of the more typical recreation activities known to occur on specific Reclamation parcels in the Study Area.

Fishing access is an important component of the outdoor recreation experience at parcels along the Snake River. IDFG maintains three Sportsman Access Areas within the Study Area (not on Reclamation lands): Peterson Island, near the town of Declo; Minidoka Pond, east of Heyburn; and Ponderosa Pond, just north of Burley. Each of these areas provides parking, a boat dock, and fishing access. There is an accessible fishing dock at Minidoka Pond (IDFG 2002). None of these areas are on Reclamation land. In addition to these established fishing access sites, several of the Reclamation parcels along the Snake River are currently serving as informal river access sites (see Table 3.8-1).

Camping is allowed on BLM land, and dispersed camping occurs on much of the Federal land in the Study Area. In addition, camping is allowed at most of the Sportsman Access Sites maintained by IDFG. Camping is a popular activity in several areas just downstream of Minidoka Dam, particularly on holiday weekends (see Table 3.8-1). Camping in these areas is potentially hazardous, because large fluctuations in water flow occur with little or no warning.

Hunting is a popular activity in the Study Area and occurs on nearly all of the Reclamation parcels. Exceptions include Lake Walcott State Park, parcels near dam facilities, parcels where firearms are specifically prohibited, urban parcels, and very small parcels. Primary hunting activities include waterfowl and upland game birds. Much of the hunting activity on Reclamation parcels is generally focused around constructed wetland areas as a result of the concentration of waterfowl. Hunting is also allowed on IDFG access sites and is a popular activity on BLM land near Lake Walcott (Personal Communication, A. Crump, Recreation Technician, BLM Burley Field Office, June 3, 2002). Intermittent target practice and shooting occur in the Study Area (see Table 3.8-1); however, concentrated target practice and shooting ranges are prohibited on Reclamation lands unless specifically authorized for such use. Because of safety concerns, a portion of parcel 824-8-W was closed to firearms and vehicles by the A&B Irrigation District. In

addition, Reclamation has worked closely with Minidoka County in developing an ordinance (Minidoka County Ordinance No. 96-3) that prohibits the discharge of firearms, and subsequently target practice/shooting, on parcel 1022-FW. This ordinance is posted at parcel 1024-1-W. Reclamation also recently closed the Cinder Pit (parcel 1022-5-W) to target practice and shooting due to safety concerns.

TABLE 3.8-1
Recreation Activities on Specific Reclamation Parcels in the Study Area

Parcel Number/Name	Recreation Activities						
	Fishing	Hunting	ORV Use[1]	Wildlife Viewing	Target Practice[1]	River Access	Camping[2]
824-7-W/E Pond		x		x			
922-6-W		x			x		
923-4-W		x	x				
925-4-W[3]	x					x	x
1022-5-W		x			x		
824-8-W/F-Drain		x			x		
825-8-W		x					
825-16-A							
D-5 Drain	x	x				x	
925-9-W	x	x				x	
925-1-W		x					x
925-5-A							x
1021-5-W	x	x				x	
1024-1-W	x	x				x	
1022-5-W (Cinder Pit)		x			x		

[1]Unless specifically opened for such use, ORV use and concentrated target practice/shooting ranges are unauthorized activities on Reclamation lands

[2]The only designated camping area is on Parcel 925-1-W. All other camping is on an ad-hoc basis.

[3]Camping is not allowed on the Minidoka NWR portion of this parcel; however, ad hoc camping does occur in the area of Bishop's Hole.

Source: USBR 2002

ORV use is occurring in the Study Area; however, unless specifically opened for such use, ORV use is prohibited on Reclamation lands. At this time, no Reclamation parcels within the Study Area are open to ORV use.

3.8.1.2 Recreation Facilities

Few developed recreation facilities occur on Reclamation lands in the RMP Study Area. Exceptions include Lake Walcott State Park and Minidoka National Wildlife Refuge.

Lake Walcott State Park

Lake Walcott State Park is located at the northwest end of Lake Walcott, 11 miles northeast of Rupert, accessed from State Highway 24. Dating from the earliest days of the Minidoka Project, the park was developed somewhat informally in response to various needs and policies of Reclamation. The park area nearest the dam first served as a construction camp for the dam, and later uses included housing camps for Reclamation employees and Civilian Conservation Corps enrollees. While Reclamation officially named the area "Walcott Park" in 1912, it was not developed for public recreational purposes until the 1930s. Much of the site development in the park, including the rock walls still visible today, was completed by the Civilian Conservation Corps. A formal master plan was developed for the park in 1938, yet funding cutbacks and the disbandment of the Civilian Conservation Corps limited the improvements made at the park. Although closed to the public during World War II, the popularity and use of Walcott Park grew steadily once open again in the 1950s. The park was briefly under the jurisdiction of the FWS in the mid-1960s and became a state park in 1996 (Reclamation 1998b).

The park is open year round; however, the camping season extends from May 1 through October 1. Lake Walcott State Park is the only developed park on the reservoir, and the only place where camping is allowed. The entire park, managed by IDPR for Reclamation, is situated within the Minidoka National Wildlife Refuge and the refuge headquarters building is located within the park. The 140-acre park is in a quiet, grassy setting with many large, mature shade trees. Activities include camping, fishing, boating, waterskiing, bird watching, basketball, horseshoes, and picnicking. The park also has an 18-hole disc (Frisbee™) golf course that serves as the venue each April for the Lake Walcott Open disc golf tournament. Wading and beach swimming are not allowed at Lake Walcott State Park.

The park is generally divided into three separate use areas: day use, camping, and boating. The day use area is on the west end, the camping is approximately in the middle, and the boat launch is on the east end of the park. Paved trails wind throughout the park and provide foot access and some waterfront trails to each of the different use areas and to Minidoka Dam. There is also a dirt hiking trail that leaves the park near the boat ramp and follows the shoreline for approximately 1.5 miles. The park provides extensive picnicking opportunities, with five picnic shelters and approximately 200 individual picnic sites. The day use area also provides an interpretive kiosk that provides historical information about the local area and the construction of Minidoka Dam.

The park has four camping areas, one for recreational vehicles (RVs) and three separate tent areas. The RV area provides 23 sites with water and electric hook-ups, including one site for a campground host. The three separate tent areas each accommodate approximately eight tent sites. Each tent area has a small parking area adjacent to it, as the tent areas are for walk-in camping only.

Additional camping opportunities are available in two new camper cabins that have been placed for use in the 2004 recreation season. These wood cabins, which are approximately 200 square

feet, are located to the west of the RV camping area adjacent to the upper parking lot. Each cabin has a deck facing Lake Walcott, electrical outlets, heating and air conditioning, and outdoor water spigots. Paved trails are planned to provide pedestrian access to the restrooms, parking lot, and other trails throughout the park. Each cabin has a maximum occupancy of five; however, the maximum accessible occupancy is three. Each cabin has a bunk bed and futon couch. The cabins are open from May 1 through October 1. The cost to rent these cabins is approximately $41.00 ($35.00 for cabin, $4.00 entrance fee, plus appropriate taxes).

Boat ramps are open at Lake Walcott State Park from April 1 through September 30. A two-lane concrete boat ramp with approximately 60 parking spaces is located at the east end of the park. Approximately 5 miles of shoreline are available for year-round bank fishing; however, fishing is not allowed from the boat dock. Available species include rainbow trout, largemouth bass, and yellow perch.

A number of special events are held in the park throughout the year. These events do not require a permit; however, the group hosting the event must contact the park office in advance. Popular group events include family reunions, company picnics, and group camping. Specific special events held at the park include a disc golf tournament, the Reclamation-sponsored “Catch a Special Thrill” event, and high school cross-country running meets.

The park provides a no-fee shower building with four showers. The shower building is located in the RV area, although it is open to all campers. There are a total of seven restroom buildings scattered throughout the park. The restrooms and showers are open only during the camping season and remain closed throughout the winter. There is an RV dump station located in the park. User fees in 2004 are $18/night for RVs and $12/night for tents. The park also charges a Motorized Vehicle Entrance Fee of $4 for any non-camping visit; however, an Annual State Park Passport ($25 in 2003) allows unlimited day use. New in 2004, the Motorized Vehicle Entrance Fee is not waived for campers; that is, campers are charged the fee in addition to the overnight camping fee. Also new in 2004, state sales tax is added to all entrance fees.

Maintenance in the park is performed by a crew of four seasonal maintenance workers. In addition, volunteers from organizations such as Boy Scouts and Idaho Youth Ranch help maintain the park. Security in the park is provided by the park ranger. Volunteer camp hosts stay in the campground during the summer. In addition, firefighters from two local fire districts (East End and North End Fire Districts) act as volunteer security personnel during busy weekends.

Minidoka National Wildlife Refuge

Minidoka NWR, managed by FWS, includes about 80 miles of shoreline around Lake Walcott, stretching about 25 miles upstream from Minidoka Dam. About half of the refuge’s 20,699 acres is open water and wetlands (FWS 2001). The diversity of habitats at Minidoka NWR supports a wide variety of birds and mammals. While the refuge is open to visitors year-round, public access may be limited in certain places throughout the year to protect wildlife. Designated recreation areas within the refuge include public hunting land areas, public hunting water areas, boat fishing areas, and Lake Walcott State Park. Fishing from boats on Lake Walcott is permitted from April 1 through September 30. Fishing from shore is permitted year-round in accordance with state fishing regulations. Motorized vehicles are permitted only on designated roads and several hunter parking areas are provided. Improved access roads are closed to vehicles

January 15 to September 20; however, foot access is allowed at any time throughout the refuge. There are two boat ramps in the refuge, one at Lake Walcott State Park and the other just downstream of Tule Island. Wading and beach swimming are not allowed within the refuge and camping is allowed only within Lake Walcott State Park.

3.8.1.3 Visitor Profile and Use Levels

In 2000, a survey of recreation users at Lake Walcott State Park was administered with a sample size of 197 (IDPR, EDAW 2000). Limited survey data are also available from visitor surveys conducted by IDPR in 1999, 2000, and 2001. Results from each survey provide information regarding visitor profiles and perceptions of the park and its facilities. The results of these completed surveys are the basis for the visitor information presented below. It should be noted, however, that in each of the 3 years for which the IDPR survey data are available, the sample size was quite small (ranging from 13 to 36 completed surveys). Therefore, these data are not statistically significant, but do provide an overall idea of general use and visitation patterns.

The survey provided information regarding the location of the primary residence of visitors. Eighty-four percent of respondents were from Idaho. The majority of visitors were from Minidoka County (37 percent) and Cassia County (30 percent). These numbers indicate that Walcott State Park primarily serves visitors from the immediate area.

The survey asked respondents to indicate all of the types of recreation activities they participated in while visiting Walcott State Park. Picnicking was the activity most participated in by park users, followed by rest/relaxing, sightseeing, other activities, fishing, and numerous other activities (see Table 3.8-2).

TABLE 3.8-2
Primary Activities at Lake Walcott State Park

Activity	Respondents (percent)
Picnicking	66
Rest/relaxing	28
Sightseeing	18
Other activities	17
Fishing	16
Wildlife observation	10
Hiking	10
Waterskiing	10
Camping	9
Swimming*	8
Powerboating	6
Sightseeing	5

*Although swimming is not allowed at Lake Walcott, survey respondents noted that it is an activity that some of them participate in.

Source: IDPR, EDAW 2000

Overall, visitors perceive few problems with capacity and conflict in the area. Several questions related to social capacity were included in the survey to determine how visitors felt about crowding at the park. Nearly 4 out of 10 respondents (38 percent) indicated problems with disruptive behavior by others as "a big problem." This value may indicate that high use levels could be creating conditions that lead to conflicts among visitors. Such conflicts, however, do not apparently significantly detract from visitors' overall satisfaction with their visit to the park. Almost all survey respondents (94 percent) indicated that they were either "extremely satisfied" or "somewhat satisfied" with their visit. Overall, visitors who participated in the survey were satisfied with their visit to Walcott State Park.

The IDPR survey also asked respondents to choose from a list of what facilities and/or activities they would like to see offered in the park. These survey results indicate different preferences among user groups as well as change in preference over time. It is interesting to note that the preferences of each user group are in direct conflict with one another on at least two desired changes: a playground and children's programs. This may indicate that the demographics of each user group is changing over time, with more families with children using the park as day visitors and more visitors without children using the park as campers. The significant increase in the desire for overflow parking by day use visitors suggests that overcrowding may be an issue.

3.8.1.4 Access

Access to the scattered parcels in the Minidoka North Side RMP Study Area is primarily by secondary, rural roads. Main roads are shown on Figure 1-1, *Location Map*, in Chapter 1. Interstate 84 (I-84) runs east and west through the RMP Study Area. East of the Study Area, I-84 turns to the south towards Ogden, Utah. I-86 continues east to American Falls and Pocatello, Idaho. I-84 and I-86 follow the Snake River and link the major population centers of southern Idaho, including Boise, Twin Falls, and Pocatello. The communities of Burley and Heyburn are located immediately adjacent to and south of I-84, and Rupert and Paul lie further to the north. Four freeway exits serve the Study Area communities. The Study Area also contains two-lane state routes. The rural roads in the RMP Study Area generally follow a grid system, except where diverted around such features as canals, railroad tracks, and the Snake River. The roads are numbered north and south parallel to Baseline Road, roughly following State Route (SR) 25, and east and west parallel to Meridian Road.

Dirt, two-track roads traverse many of the Reclamation parcels in the Minidoka North Side RMP area. Some are used to access Reclamation facilities. Most have been created by public use over many years and some result from trespass and ORV use. Table 3.8-3 shows the number of roads in each parcel in terms of the parcel size, as identified from low level aerial photographs. This qualitative analysis, based on review of 100 parcels in aerial photos, indicates that 95 percent of the parcels contain roads. All but four of the small-sized parcels and one of the medium-sized parcels contain roads.

Of the seven large parcels reviewed (greater than 1 section, or 1 square mile), all contained roads and more than half contained more than five roads. Likewise, more than half of the 10 medium-sized parcels ranging from 1/4 section to 1 section in size contained more than 5 roads per parcel. Only one medium-sized parcel did not contain roads. Small parcels, those less than 160 acres, were often physically too small to contain many roads. However, nearly 10 percent of those

small parcels contained more than five roads. Approximately 22 percent contained three or four roads, and 64 percent contained one or two roads.

TABLE 3.8-3
Dirt Roads through Parcels as Related to Parcel Size

	Road Frequency				
Parcel Size	**High: More than 5 roads on parcel**	**Medium: 3 to 4 roads on parcel**	**Low: 1 or 2 roads on parcel**	**None: No roads in parcel**	**Total Parcels of Each Size**
Small: Less than 160 acres or 1/4 section	8	18	53	4	**83**
Medium: 1/4 section to 1 section	6	1	2	1	**10**
Large: Greater than 1 section	4	2	1	0	**7**
Total Parcels of Each Road Frequency	**18**	**21**	**56**	**5**	**100**

Note: Linear parcels that follow canals and roads are not included

Source: Compilation of available GIS data and aerial photography by CH2M HILL

3.8.2 Environmental Consequences

3.8.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Under Alternative A, management of Reclamation lands and Lake Walcott State Park would be without the benefit of an RMP and subsequent Historic Preservation and Maintenance Plan, likely resulting in negligible impacts to recreation resources in the future. Particularly as the natural and recreation resources experience pressure and potential degradation from use over time, the impact of no management plan would likely result in some adverse impacts to recreation resources.

Actions in some resource areas under Alternative A may have indirect beneficial effects on recreation. Specific proposals related to wetlands may have an indirect beneficial impact on recreation by possibly improving habitat for wildlife species and thus improving opportunities for consumptive and non-consumptive recreational activities. Implementation of a fire management plan would result in indirect beneficial impacts to recreation by better protecting the land and preserving it for appropriate recreational uses.

Other reasonably foreseeable impacts on recreation resources include continued regional population growth and a likely increase in visitor use. Specifically, this growth would increase the demand for consumptive and non-consumptive recreation activities. These impacts would be evident more quickly under Alternative A since no expansion of recreation facilities and fewer programs to protect and enhance natural resources are proposed.

Mitigation and Residual Impacts (Alternative A)

Mitigation measures are not necessary because no substantial impacts are expected under the No Action Alternative. Residual impacts are as discussed above.

3.8.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Alternative B contains several actions that would maintain current recreational opportunities and provide minimal increased recreation facility capacity. Identifying a public entity non-Federal partner to provide more active management and facilities, as proposed in Alternative B, would likely have a beneficial impact to recreation resources if management could be provided that is consistent with Reclamation's goals and objectives for the adequate provision and maintenance of recreation resources.

The most significant differences between Alternative B and the No Action Alternative are focused on recreation and access. Recreation resources potentially affected by implementation of Alternative B include various recreation user groups (such as campers and hunters), physical space available for recreation activities, and various recreation experience variables such as availability of public information and level of regulatory enforcement of access/use restrictions.

Implementation of an Access Management Plan, as proposed in Alternative B, would likely have a minor adverse impact on dispersed recreation and a moderate positive impact on access to Reclamation parcels. Reclamation would increase enforcement of existing regulations related to motorized vehicular use and prohibit unauthorized vehicular access to areas with high habitat value. Formalizing vehicular access would designate specific roads for use on Reclamation parcels. These actions, as well as increased enforcement and signage would result in a more coordinated approach to allowing access on Reclamation's lands, thus a beneficial effect on access in general.

Implementation of a Historic Preservation and Maintenance Plan for Lake Walcott State Park would generally have beneficial effects on recreation. A Historic Preservation and Maintenance Plan would likely enhance the overall recreation experience by reducing the potential for conflict and safety hazards among various user groups and protecting and preserving cultural and natural resources. Actions proposed at Lake Walcott State Park under Alternative B would likely have beneficial effects by providing a Historic Preservation and Maintenance Plan for the park resulting in organized and systematic implementation of future activities. Providing basic facilities at dispersed day use areas, as also proposed under Alternative B, will have a minor positive beneficial impact on day use-related activities.

Other primary differences between Alternative B and the No Action Alternative are focused on increased recreation facility capacity and management oversight at Bishop's Hole and selected day use sites. Actions related to day use sites under Alternative B would have a beneficial impact to recreation by encouraging users through management strategies to use appropriate lands, particularly at and adjacent to Bishop's Hole. These actions would enhance the recreation visitor experience at Bishop's Hole by providing minimum basic facilities such as parking and sanitation facilities. At selected day use sites, more active management and significant improvements would only be undertaken if Reclamation entered into an agreement with a non-

Federal (public entity) managing partner. These management strategies, however, may have adverse effects on recreation user groups who want a less formal recreation experience.

Public information management actions would also have a minor beneficial impact to recreation by improving the visitor's knowledge of Reclamation regulations and recreation opportunities.

Actions in other resource areas under Alternative B may have both adverse and beneficial effects on recreation, given their emphasis on resource enhancement. Specific proposals related to wetlands, including coordination with partners such as Ducks Unlimited, would, if successful, have an indirect beneficial impact on recreation by improving habitat for wildlife species and thus improving opportunities recreational activities, specifically hunting. Additional proposals related to habitat improvements and rehabilitation would likely adversely affect recreation reducing the physical space available for recreation use through the implementation of access/use restrictions on parcels with high habitat value.

Mitigation and Residual Impacts (Alternative B)

Mitigation measures are not necessary because no substantial impacts are expected under Alternative B. Specific mitigation requirements, if needed, would be determined during site-specific facility designs. Access for and use of all planned improvements by persons with disabilities is required under Section 10 of the Rehabilitation Act, as amended. All new facilities will be installed, and all existing facilities and access routes will be retrofitted in accordance with current accessibility standards. No residual impacts are expected under Alternative B.

3.8.2.3 Alternative C: Multiple Use Emphasis

In general, recreation and access related actions proposed under Alternative C are similar to those proposed under Alternative B, with the following exceptions:

1. The Access Management Plan proposed under Alternative C would not focus on habitat protection and would provide greater access for multiple uses at established sites (i.e., more roads would be open than under Alternative B).
2. No developed camping outside of Lake Walcott State Park is proposed under either Alternative A or B, while a public entity non-Federal partner to provide facilities at selected dispersed campsites, such as Bishop's Hole, would be sought under Alternative C.

The additional signage and open roads proposed under Alternative C, combined with potential camping at Bishop's Hole (although unlikely in the foreseeable future) would result in having a greater beneficial impact on recreation resources than Alternatives A or B.

Mitigation and Residual Impacts (Alternative C)

Mitigation measures are not necessary because no substantial impacts are expected under Alternative C. Specific mitigation requirements, if needed, would be determined during site-specific facility designs. Access for and use of all planned improvements by persons with disabilities is required under Section 10 of the Rehabilitation Act, as amended. All new facilities will be installed, and all existing facilities and access routes will be retrofitted in accordance with current accessibility standards. No residual impacts are expected under Alternative C.

3.9 Land Use and Management

3.9.1 Affected Environment

This EA addresses 119 individual parcels comprised of about 17,700 acres of land. Most of this land was originally withdrawn from BLM holdings and a small portion was acquired or purchased from individual landowners. These lands were either acquired or withdrawn for the Minidoka project during the early 20th century when the MID was developed. During the 1950s, the A&B Irrigation District was created on previously withdrawn lands.

Water is diverted from the north side of Lake Walcott into the North Side Canal, a gravity canal and lateral system operated by MID. This system, called the Minidoka project Gravity Division, was constructed by Reclamation in 1905 and serves 72,000 acres of land in the vicinity of Rupert, Idaho. Reclamation began construction on the North Side Pumping Division of the Minidoka project in 1948. It consists of approximately 77,000 acres of irrigable lands that have been withdrawn by Reclamation, of which 62,000 acres (Unit B) are irrigated by pumping groundwater from deep wells, and 15,000 acres (Unit A) by pumping from the Snake River. A&B operates the North Side Pumping Division.

Operation and maintenance of the respective systems were taken over by MID in 1917 and by A&B in 1966. Construction costs of the systems are reimbursed to Reclamation through long-term repayment contracts by the irrigation districts.

The lands addressed by this RMP are scattered throughout a rural agricultural setting near the communities of Rupert, Paul, Heyburn, Declo, and Burley. Most of the lands are undeveloped. There are currently some uses occurring on these lands such as wetland development and drain runoff for the irrigation districts, wildlife enhancements, municipal sewage treatment, grazing, and agriculture, as well as a variety of unauthorized uses such as ORV use, encroachments, and dumping.

Reclamation also has lands that it manages below Minidoka Dam on the Snake River that are addressed in the RMP. Some of these lands are within the Minidoka Wildlife Refuge. The area is known for good fishing and both sides of the river are frequently used by local fishermen.

The majority of the parcels were originally withdrawn from the public domain for the North Side Pumping Division, and were to become private lands irrigated by A&B as part of the North Side Pumping Division Extension Plan (Extension Plan). The Extension Plan was developed in 1984, and was to be authorized by Congress. Land was to be set aside for new irrigation development, wildlife habitat tracts, and municipal purposes. This Extension Plan was never finalized and sent through Congress because of a critical groundwater shortage in the area. The remainder of the parcels that were not under the Extension Plan have been withdrawn or acquired by Reclamation over the years for project purposes such as gravel removal, material sites, ponding areas for drainwater cleanup, and other purposes.

3.9.1.1 Project Facilities

Minidoka Dam and Lake Walcott

Minidoka Dam is a multi-purpose structure providing irrigation, power production, flood control, recreation, fish and wildlife conservation, and flood control for the lower portion of the Minidoka project. The dam is located on the main stem of the Snake River, 11 miles northeast of Rupert, Idaho, and is a zoned earth and rockfill structure constructed, operated, and maintained by Reclamation. The project specifications were described in Chapter 1, Section 1.5.2, *River and Reservoir System Operations*.

North Side Canal

Water is diverted on the north side of Minidoka Dam into the North Side Canal, a gravity canal and lateral system serving 72,000 acres of land called the Gravity Division, in the vicinity of Rupert, Idaho. The 8-mile canal is operated by MID and has an initial capacity of 1,700 cubic feet per second.

South Side Canal

Water is diverted on the south side of Lake Walcott near the left abutment of Minidoka Dam into the South Side Canal system, operated by BID which includes three large pumping plants. Each plant lifts the water about 30 feet, for a total lift of about 90 feet. The system, known as the South Side Pumping Division, serves 48,000 acres adjacent to Burley and Declo. The canal is 13 miles long and has an initial capacity of 1,325 cubic feet per second.

Title to the South Side Canal, as well as all rights-of-way, pumping plants, canals, laterals, drains, transmission lines, and appurtenant facilities, were transferred to the BID (the operating agency for the South Side Pumping Division) on February 24, 2000.

3.9.1.2 Land Management

IDFG Wildlife Management

As described earlier, Reclamation manages about 17,700 acres in the RMP Study Area, divided among 119 parcels. Under the Extension Plan, a portion of these lands were set aside for wildlife purposes, primarily upland habitat. This acreage originally included 34 of the 119 parcels. Portions of 39 other parcels were also included. These lands were to be managed according to three separate contracts between Reclamation and IDFG. The first of the IDFG contracts (#14-06-100-5429) was dated March 15, 1966, included two parcels, and encompassed approximately 60 acres. This 25-year contract expired in 1991 and was not renewed; however, two other contracts are still active, containing a total of 3,406.04 acres. Contract No. 0-07-10-L0388 is for 1,019.24 acres and will expire September 23, 2005. Contract No. 6-07-10-L791 is for 2,386.8 acres and will expire on November 1, 2011. Under the terms of the contracts, the IDFG-managed lands are open to the public and IDFG is responsible for law enforcement and weed control. The contracts also authorize IDFG to construct site improvements such as roads, trails, and other infrastructure. In addition, IDFG issued farm cooperative agreements on some of these lands that permitted some agricultural practices in exchange for habitat improvements. Resource constraints have limited IDFG's ability to implement many of the provisions of the contracts, but IDFG is still considered a partner in the management of these lands.

Lake Walcott State Park

Lake Walcott State Park, which is adjacent to Lake Walcott and Minidoka Dam and within the Minidoka National Wildlife Refuge, is a Reclamation-developed public recreation site with boating, day use and camping facilities. Reclamation has a lease agreement with IDPR to administer the 140-acre Lake Walcott State Park for public recreation. IDPR assumed responsibility for operation and maintenance of recreation facilities at the park either constructed by Reclamation or IDPR per the lease agreement. The term of the lease agreement is 20 years, from the effective date of July 1, 1996, through June 30, 2016, and is subject to additional terms listed in the lease agreement, with Reclamation providing funding cost-share for operation and maintenance costs incurred by IDPR. Some assistance with maintenance services at the park are performed through an agreement with IDPR by Idaho Youth Ranch. Historically, the park has received a great deal of local support in terms of cost sharing and volunteer services for construction of park projects and serves as the primary local park for Minidoka and Cassia Counties and the community of Rupert.

National Wildlife Refuge

The Minidoka National Wildlife Refuge is managed by FWS subject to an MOU signed between the two agencies on April 23, 1964. FWS management includes the water surface of Lake Walcott and most lands adjacent to the lake with the exception of the State Park and Reclamation Zone surrounding Minidoka Dam. Part of the Refuge is open to public hunting and fishing. FWS does not currently have a refuge management plan in place; however, there are management objectives established. A management plan is scheduled for completion in the near future.

Reclamation Zone

Reclamation has retained exclusive management of an area immediately upstream and downstream of the Minidoka Dam for operations, maintenance, and security purposes.

3.9.1.3 Easements and Leases

Transferred Works

Although ownership was retained by the United States (Reclamation), responsibility for care operation, and maintenance of various property and facilities associated with project purposes was transferred to the irrigation districts for continued operation and maintenance of the irrigation systems. Examples of transferred works include irrigation facilities such as pumps, wells, pumping plants, and laterals as well as ditch rider's homes, vehicles, and tools transferred by Reclamation to A&B on March 1, 1966.

Agriculture and Grazing

Farming and grazing has been authorized on many of the parcels over the years. Reclamation currently administers nine such leases on 2,162 acres. Six agricultural leases total 196 acres, while three grazing leases total 1,966 acres (two dry for 1,918 acres and one irrigated for 48 acres). The term of each lease is 1 year with the option to extend four successive additional periods of 1 year each. Agricultural leases issued in 2003 cannot be extended beyond February 28, 2008. Whether future leasing will occur would be determined at that time. Agricultural leases require soil protection by mandatory rotation of cover crops and planting of grasses on all cultivated acreage at the end of any lease that is not reissued. Many of the terms

and conditions of agricultural leases are similar to those governing the grazing leases except the rental charges are substantially higher for agriculture leases. Rather than protecting the resource through crop rotation, grazing leases limit animal unit months (AUMs) as well as the specific time period during which grazing is permitted.

Six grazing leases on the A&B totaling 2,343 acres were terminated in 1995. In addition, two agricultural leases totaling 23.5 acres were terminated in 2002 as a result of water issues raised in the State's adjudication process. One additional agricultural lease on 4.8 acres was terminated February 28, 2004. Current farming and grazing leases are summarized in Table 3.9-1 below.

TABLE 3.9-1
Agriculture and Grazing Lease Summary

Parcel	Use	Acres	Contract Number
925-8-W	Grazing (dry)	80	0-07-14-LA351
921-7-W	Grazing (dry)	1838	7-07-14-LA261
922-6-W	Grazing (irrigated)	48.3	3-07-14-LA419
825-14-W	Agriculture	35.3	3-07-14-LA410
921-1-W	Agriculture	42.4	3-07-14-LA416
724-1-W	Agriculture	9.5	3-07-14-LA417
824-7-W	Agriculture	67.9	3-07-14-LA418
821-2-W	Agriculture	38.4	3-07-14-LA420
921-1-W	Agriculture	3	3-07-14-LA422

Source: U.S. Bureau of Reclamation Lease File

Apiary Sites Special Land Use Permit

In addition to agriculture and grazing leases, Reclamation issued special use permits to two permittees to maintain honey bee colonies on three Reclamation parcels within the RMP Study Area: 922-5-W, 824-6-W, and 1021-6-W. The permits restrict the use to 80 colonies per 100-foot by 100-foot site.

Cooperative Wildlife Habitat Development Agreements

Some farming has occurred on Reclamation lands as a result of cooperative agreements issued by IDFG on some of the lands IDFG was contracted to manage. Farm Cooperative Agreements were arrangements between IDFG and neighboring farmers that allowed the farmers to use portions of the IDFG-managed property for crop production in exchange for habitat improvements. Under this type of development, selected portions of tracts were farmed by the adjacent land owner and an equal number of acres were planted with irrigated nesting cover for upland game birds. Food patches and shelterbelts may also have been developed where possible. In cases where the farmer was agreeable, portions of privately-owned unusable farmland may have been improved and included in the agreement.

Municipal and Industrial Uses

A number of Reclamation parcels have been, or are currently, in use for municipal and industrial purposes. Several examples of these are described below.

The City of Rupert has an agreement with Reclamation to use four tracts totaling 600 acres of Reclamation land to spread treated waste water from the City's sewage treatment ponds. This lease was initiated on May 1, 1989, for one year, and has been renewed on an annual basis. Only 160 of these acres, located on Parcel 824-11-W, are receiving waste water. This wastewater is disposed of using a pivot irrigation system; the irrigated land being cropped by City lessees. The remaining 440 acres have never been cropped, nor had waste water applied, but are needed to facilitate expanded treatment capacity. Reclamation is currently working with the City of Rupert and BLM to transfer the 600 acres to City ownership.

A small portion of Parcel 824-8-W has been used by Minidoka County as a repository for fill and other material for road building through an informal agreement with Reclamation. Several other Reclamation parcels are also used for storage of similar materials such as Parcel 921-11-W and 824-8-W. Some of these uses are informally authorized and some are not, and they will need to be formalized or addressed as an unauthorized use. In addition, portions of Parcel 923-1-W was formerly used as a County Landfill.

3.9.1.4 Adjacent Land Uses

Use of lands adjoining Reclamation parcels within the Study Area were manually inventoried using aerial photography. Nearly all adjacent lands were determined to be used for agricultural purposes or left vacant with potential grazing use. Since most lands bordering Reclamation parcels are located within the boundaries of irrigation districts, most of these parcels are currently used for irrigated agriculture. Likewise, lands bordering Reclamation parcels located on the borders of or outside the irrigation districts are in either non-irrigated agricultural use or appear to be vacant. Since it is difficult to determine from aerial photography if a non-farmed parcel is being grazed, these parcels were simply classified "vacant/grazing." Other applicable land use classifications for adjacent lands include urban, residential, and municipal/industrial. In addition, Reclamation parcels bordering the Snake River were also identified accordingly. Table 3.9-2 summarizes adjacent land uses. This data is fairly general, with emphasis on dominant land use patterns.

TABLE 3.9-2
Adjacent Land Use Summary

Use Classification	%	Notes
Irrigated Agriculture	58.0	Includes green farms and fields with visible irrigation equipment
Dry Agriculture	3.7	May include some formerly irrigated parcels
Vacant/Grazing	18.6	Mostly vacant parcels but grazing may occur on some.
Residential	0.6	Includes concentrations of housing
Municipal/Industrial	0.4	Includes gravel extraction sites
Urban	4.5	Includes mix of high density development
Mixed	8.0	This includes a mixture of the above categories
Other	6.1	This includes parcels bordering the Snake River and unidentified land uses

Source: Land Use inventory based on Reclamation GIS data

The inventory also identified adjoining Reclamation parcels: 40 of the 119 parcels inventoried, or 35 percent of the total, share at least one property line with another Reclamation parcel.

3.9.1.5 Unauthorized Land Uses

The majority of Reclamation parcels are unmarked, unused for project operations, and are not being farmed or grazed. A variety of uses that have not been authorized occur on these lands, ranging from agricultural encroachments to illegal dumping and ORV use.

Agricultural Encroachments

The most common unauthorized land use occurring on Reclamation lands is agricultural encroachment by neighboring farms. This typically results from squaring-up agricultural fields for wheel-line irrigation systems and changing field boundaries to allow use of pivot systems. Most of the agricultural encroachments are believed to be in current irrigated agricultural use but some are now idle because the use of pivots creates empty field corners. A total of 147 agricultural encroachments have been identified by Reclamation, affecting 70 Reclamation parcels. More than half of all Reclamation parcels are encroached upon by neighboring agricultural uses. Most are affected by only one small encroachment, although multiple encroachments are not uncommon. One parcel has 12 individual encroachments totaling nearly as many acres and another parcel has 3 with a combined acreage of over 29 acres. In total, agricultural encroachments are estimated to use 394.2 acres of Reclamation land as summarized in Table 3.9-3.

Other Types of Unauthorized Use

A number of other types of unauthorized use also occur or have occurred in the past on Reclamation lands. Reclamation has identified 32 separate sites, containing 61.3 acres on some 25 Reclamation parcels; however, other unauthorized uses are likely. Unauthorized uses include dumping, ORV use, target practice/shooting sites, material storage, apiary sites, and other uses.

After agricultural encroachment, the most common unauthorized use has traditionally been illegal dumping. Piles of field rock remaining from when the land was cleared, or broken concrete from former irrigation system components, have been dumped in many of these parcels over the years. On some sites, illegally dumped material has also contained solid waste. The most notable example of this can be seen on Parcel 825-15-W, illustrated in Figure 3.9-1. Unauthorized tree cutting has also taken place on this site. Target practice and shooting are other unauthorized uses that commonly occur on some parcels, such as portions of Parcels 8-248-W and 1022-5-W. Unauthorized ORV use also occurs on many parcels including those on Parcel 8-248-W, shown in Figure 3.9-2.

Reclamation addressed the unauthorized dumping problem on 19 of the dump sites by contracting to have these sites cleaned up in 2003/2004. These sites ranged from older trash dumping areas to areas where dumping continues to occur and included both “highly visible” and “remote” sites. Material removed included residential trash, abandoned vehicles and farm equipment, old appliances, fencing materials, and damaged irrigation equipment. During the 2003/2004 cleanup effort, 192 tons of illegally dumped material was removed at a cost to the taxpayers of $127,500. Rock and concrete were not included in cleanup sites completed in 2003/2004. Future cleanup contracts will consider removal and/or burial of rock and concrete at selected sites. The cleanup effort reflected Reclamation’s intent to better manage its lands and provide better public education regarding where Reclamation lands are and that continued dumping is not acceptable. As a part of this effort, “No Dumping” signs have been placed during

Fall 2004 at all sites where cleanup has already occurred and at sites where dumping presently exists. Non-agricultural encroachments are summarized in Table 3.9-4.

TABLE 3.9-3
Summary of Known Agriculture Encroachments by Reclamation Parcel

Parcel ID	Number of Encroachments	Unauthorized Acreage	Parcel ID	Number of Encroachments	Unauthorized Acreage
1021-1-W	2	11.9	825-13-W	1	1.3
1021-2-W	10	7.2	825-15-W	1	1.2
1022-3-W	1	3.8	825-1-W	1	6.9
1022-4-W	3	3.9	825-2-W	7	17.2
1022-5-W	1	9.6	825-3-W	1	0.4
1022-6-W	1	1.0	825-4-W	2	4.0
724-2-W	2	5.2	825-7-W	1	0.9
724-3-W	3	4.6	825-8-W	5	9.3
724-5-W	1	0.1	825-9-W	4	12.1
725-1-W	1	5.7	921-10-W	1	10.2
725-2-W	1	0.1	921-11-W	4	6.4
725-3-W	2	3.5	921-13-W	1	1.8
725-4-W	1	1.7	921-3-W	1	2.6
725-5-W	12	11.8	921-6-W	3	4.3
821-2-W	3	29.3	921-7-W	2	17.4
822-1-W	1	2.5	921-8-W	2	9.9
823-1-W	2	0.6	921-9-W	1	1.1
823-2-W	1	0.8	922-12-W	1	0.9
823-3-W	1	1.1	922-13-A	1	4.1
823-4-W	1	1.5	922-15-A	1	0.7
823-5-W	1	5.7	922-1-W	1	0.9
823-6-W	2	3.9	922-2-W	1	4.1
823-7-W	1	3.9	922-4-W	1	4.7
823-8-W	1	0.5	922-6-W	8	25.8
824-12-W	1	1.1	922-8-W	1	3.8
824-13-A	1	9.4	922-9-W	1	0.7
824-14-A	1	5.0	923-2-W	3	22.3
824-2-W	1	8.0	923-3-W	4	20.0
824-3-W	1	0.1	924-1-W	5	3.3
824-6-W	2	0.5	924-2-W	1	0.2
824-8-W	4	23.8	924-4-W	2	3.0
824-9-W	1	3.5	925-10-W	1	0.6
825-10-W	5	7.1	925-3-W	2	2.2
825-11-A	1	2.7	925-8-W	1	1.5
825-12-W	1	6.9	**Total:**	**147**	**394.2**

Source: Land Use inventory based on Reclamation GIS data

FIGURE 3.9-1 Parcel 825-15-W: Illegally Dumped Material

FIGURE 3.9-2 Parcel 8-248-W: Unauthorized Activities. Shooting and ORV use takes place here, as shown by hillsides scarred with ORV trails.

TABLE 3.9-4
Summary of Non-Agriculture Encroachments by Reclamation Parcel*

Parcel ID	Number of Encroachments	Unauthorized Acreage	Parcel ID	Number of Encroachments	Unauthorized Acreage
1021-2-W	3	0.8	825-3-W	1	3.2
1021-5-W	1	18.2	825-5-W	1	0.3
1021-6-W	1	1.1	825-8-W	1	5.7
1023-1-W	2	0.1	921-11-W	1	3.2
1024-1-W	1	0.1	921-13-W	1	3.9
1024-2-W	1	0.7	921-1-W	2	3.5
823-7-W	1	2.1	922-10-W	1	0.9
824-3-W	1	0.1	922-11-W	1	0.6
825-13-W	1	1.8	923-4-W	1	1.2
825-14-W	1	0.3	924-1-W	1	0.2
825-15-W	3	6.2	925-2-W	2	3.2
825-2-W	2	2.2	925-8-W	1	1.8
			Total	**32**	**61.3**

Source: Land Use inventory based on GIS data supplied by U.S. Bureau of Reclamation. 2003
*The number of encroachments and associated acreages continues to change. The data shown here represents the numbers and acreage at one specific point in time.

3.9.2 Environmental Consequences

3.9.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Under Alternative A, land resources would continue to be managed on an ad hoc basis without the benefit of a management plan. For example, many if not all of the nine leases—consisting of 196 acres leased for agriculture and 1,966 acres leased for grazing—could be renewed at Reclamation's discretion. As in the past, this practice has not directly adversely impacted land use and management other than possible missed opportunities associated with this non-strategic management approach.

Trespass and encroachment, and unauthorized uses (including dumping), would continue to be addressed through public education and on a case-by-case basis by consultation with the offending parties to work to eliminate the existing trespasses. The safeguards that are included in this alternative are expected to be sufficient to avoid adverse impacts on land use and management.

On parcels to be retained, Reclamation may choose to renew contracts with IDFG to continue their management of those parcels. Renewed contracts would have new terms defining IDFG's management responsibilities and monitoring requirements. New contract terms would

presumably include provisions requiring IDFG to assume a more active role than in the past. This would provide more active land management of the contracted parcels and alleviate Reclamation's expenditure of resources and staff.

Mitigation and Residual Impacts (Alternative A)

Mitigation measures are not necessary because no substantial adverse or residual impacts are expected under the No Action Alternative. Because there are no identifiable adverse impacts requiring mitigation, there are no anticipated residual impacts.

3.9.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Under Alternative B, new agricultural and grazing leases would be granted for over-riding Project benefits and where water rights are legally appropriated. However, these leases would only be authorized if they would not result in impacts to natural or cultural resources, or to threatened and endangered species. This focused approach to leasing would have a positive effect on land management through the implementation of a more coordinated process whereby other land management characteristics are factored into whether or not parcels should be grazed or used for agricultural purposes.

Alternative B would proactively address the issue of trespass and encroachments, and unauthorized uses (including dumping), through implementation of a prioritized set of actions to deal with these problems. Specifically, 147 unauthorized agricultural encroachments currently affect 70 Reclamation parcels. While well over half of Reclamation's parcels are encroached upon in this way, only about 2 percent of Reclamation's land inventory within the Study Area is affected, thus this is a widespread but relatively small problem in terms of affected acreage. A significant proportion of these encroachments result from long-term agricultural practices such as irrigation beyond farm boundaries. In conclusion, implementation of Alternative B would benefit Reclamation's land managers by making on-the-ground land use practices consistent with the agency's jurisdictional boundaries. The contents of parcel dump sites would be characterized, prioritized for clean up, responsible parties notified (where possible), and monitoring implemented to alleviate future dumping.

Under Alternative B, Reclamation may renegotiate contracts with IDFG to manage parcels within the Study Area beyond those currently under IDFG contract, as appropriate. This could result in more lands being actively managed by IDFG than under Alternative A. Similar to Alternative A, renegotiated contracts would have new terms defining management responsibilities and monitoring requirements. Implementation of Alternative B would likely have a somewhat greater positive impact on land use and management than Alternative A because more lands could potentially be managed by IDFG.

Mitigation and Residual Impacts (Alternative B)

No mitigation measures are necessary because no substantial impacts are expected under Alternative B. Because there are no identifiable adverse impacts requiring mitigation, there are no anticipated residual impacts.

3.9.2.3 Alternative C: Multiple Use Emphasis

From a land use and management perspective, Alternative C would be relatively similar to Alternative B in terms of approach and impacts. As with Alternative B, the Multiple Use Emphasis would be expected to generally yield positive rather than negative impacts to land use and management.

Two notable differences between Alternatives B and C are as follows:

1. Grazing leases would be considered on more land than under Alternative A.
2. Both of the existing IDFG contracts would be cancelled and no new agreements negotiated, thus resulting in Reclamation's management of all parcels.

Additional administration of the potentially new grazing leases, combined with complete management responsibility regarding applicable parcels important to wildlife, would increase the demands on Reclamation staff and resources resulting in negative impacts to land use and management.

Alternative C would be the same as is discussed above under Alternative B with regard to trespass and encroachments.

Mitigation and Residual Impacts (Alternative C)

Additional Reclamation staff resources would be required to support the administration of extra potential lease agreements and management of parcels important for wildlife purposes. If adequate additional staff resources are available, potential impacts on land use could be mitigated, however, the future availability of additional administrative staff is not known at this time.

3.10 Socioeconomics

3.10.1 Affected Environment

Most of the Reclamation parcels are found in Minidoka County, although some of the largest parcels are located in Jerome County. Eight parcels are also located in Cassia County. This region includes the communities of Burley, Heyburn, Paul, Acequia, and Rupert. Distribution of Reclamation lands by jurisdiction, area, and parcel is presented in Table 3.10-1.

TABLE 3.10-1
Minidoka North Side Land Distribution Summary

County	Parcels	% of Total	Acres	% of Total
Minidoka	92	77.31	9,732.8	55.05
Jerome	19	15.97	6,598.5	37.32
Cassia	8	6.72	1,348.4	7.63
Total	**119**	**100**	**17,679.7**	**100**

Source: U.S. Bureau of Reclamation GIS Data

3.10.1.1 Economy and Employment

The region's economy is largely dependant on farming and food processing. Dominant commodities include potatoes, sugar beets, beans, corn, grains, dairies, and others. A number of large food processors convert these to commodities such as sugar, frozen french fries, and cheese. Together, Minidoka, Jerome, and Cassia Counties contribute approximately two-thirds of the region's labor force. In 2003, both Minidoka and Cassia Counties had unemployment rates significantly higher than the surrounding region or the state of Idaho, while Jerome County's unemployment rate was just slightly above the regional average. Labor force and unemployment data are summarized in Table 3.10-2.

TABLE 3.10-2
2003 Annual Average Labor Force and Employment Summary

Area	Civilian Labor Force	Unemployment	% Unemployment	Total Employment
Minidoka County	9,709	802	8.3	8,907
Jerome County	10,114	416	4.1	9,698
Cassia County	9,935	659	6.6	9,276
Magic Valley LMA	54,248	2,173	4.0	52,075
State of Idaho	692,552	37,447	5.4	655,104

Source: Idaho Department of Labor 2004

The state of Idaho has traditionally lagged behind the national average in terms of both per capita income and income growth. Likewise, the three-county area surrounding the Study Area tended to lag behind the state in terms of per capita income, even though income growth exceeded the State's. In 1979, Minidoka and Jerome Counties had roughly comparable per capita incomes trailing behind Cassia County's. Jerome and Cassia Counties now have comparable per capita incomes with the State, however, Minidoka County continues to trail its two neighbors. Changing per capita income is compared in Table 3.10-3.

TABLE 3.10-3
Comparative Per Capita Income Summary

Per Capita Income	1979	1984	1989	1994	1998	2002	% Change from 1998
Minidoka County	$6,107	$8,553	$12,114	$15,054	$16,669	$19,664	18.0
Jerome County	$6,087	$9,346	$14,083	$17,349	$22,702	$24,787	9.2
Cassia County	$6,707	$10,535	$14,736	$16,538	$19,923	$24,324	22.1
State of Idaho	$7,894	$11,069	$14,803	$18,846	$22,079	$25,476	15.4
United States	$9,230	$13,824	$18,566	$22,581	$27,203	$30,906	13.6

Source: Idaho Department of Labor 2004

3.10.1.2 Population and Demographics

Together, the three counties comprising the Study Area contribute approximately 4.4 percent of the state's population. However, if recent trends continue, this percentage will decline, because the average population growth in Idaho has easily outpaced even the fastest growing of the three counties (Jerome) and greatly exceeded the slowest (Minidoka).

Although relatively diverse, all three counties are dominated ethnically by white persons. Other than this majority, the only considerable ethnic group is persons of Hispanic or Latino origin who comprise more than one-fourth of Minidoka County's population and substantial segments of the other two counties as well. Census data from 2000 (with some available updates) are presented for the three counties and the state of Idaho in Table 3.10-4.

TABLE 3.10-4
Comparative Demographic Data Summary

Population Data	Minidoka County	Jerome County	Cassia County	State of Idaho
Population, 2003	19,349	18,913	21,610	1,366,332
Population, percent change, April 1, 2000, to July 1, 2003	-4.1%	3.1%	0.9%	5.6%
Population, 2000	20,174	18,342	21,416	1,293,953
Population, percent change, 1990 to 2000	4.2%	21.2%	9.6%	28.5%
White persons, percent, 2000 (a)	78.1%	87.0%	84.7%	91.0%

TABLE 3.10-4
Comparative Demographic Data Summary

Population Data	Minidoka County	Jerome County	Cassia County	State of Idaho
Persons reporting some other race, percent, 2000 (a)	17.8%	9.8%	12.1%	4.2%
Persons reporting two or more races, percent, 2000	2.5%	1.9%	1.9%	2.0%
Persons of Hispanic or Latino origin, percent, 2000 (b)	25.5%	17.2%	18.7%	7.9%
Median household income, 1999 model-based estimate	$32,021	$34,696	$33,322	$37,572
Persons below poverty, percent, 1999 model-based estimate	14.8%	13.9%	13.6%	11.8%
Children below poverty, percent, 1997 model-based estimate	20.6%	20.5%	20.4%	17.3%

(a) Includes persons reporting only one race
(b) Hispanics may be of any race, so also are included in applicable race categories

Source: U.S. Census Bureau 2004

3.10.2 Environmental Consequences

3.10.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

With some minor exceptions, none of the alternatives impact Socioeconomic resources. In most cases, the alternatives would either not affect or improve socioeconomic conditions of the Study Area. In general, all three alternatives are nearly identical in terms of socioeconomic and related impacts.

As a continuation of existing management practices, the No Action Alternative would have little or no direct effect on the local economy, employment, population or demographics. As such, no impacts are expected.

Mitigation and Residual Impacts (Alternative A)

Mitigation measures are not necessary because no substantial adverse or residual impacts are expected under the No Action Alternative.

3.10.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Alternative B would have little or no direct effect on the local economy, employment, population or demographics. No impacts are expected to result from the Preferred Alternative.

Mitigation and Residual Impacts (Alternative B)

Mitigation measures are not necessary because no substantial adverse or residual impacts are expected under Alternative B.

3.10.2.3 Alternative C: Multiple Use Emphasis

Alternative C would consider new leases on a case-by-case basis for agriculture and grazing. If additional land became commercially productive through new leases, this could have very minor positive economic benefits for the Study Area, although population or demographics would not likely be affected.

Mitigation and Residual Impacts (Alternative C)

Mitigation measures are not necessary because no adverse impacts are expected under Alternative C and residual impacts would likely be positive.

3.11 Public Services and Utilities

3.11.1 Affected Environment

With the exception of fire, law enforcement, and drain water, none of the public services and utilities addressed in the RMP would be directly affected by the RMP, therefore the following discussion is limited to the affected issues.

3.11.1.1 Emergency Fire Suppression Services

Wildland fires are common in the Study Area, typically resulting from accidental ignition (such as cigarettes, vehicle exhaust systems, and lightning strikes), as well as the intentional burning of adjacent cropland. The combination of fire and overgrazing has reduced the amount of native cover (sagebrush, forbs, and grasses) and facilitated the invasion of cheatgrass. An annual invasive species, cheatgrass dries early in the season becoming highly flamable, increasing the incidence and facilitating the spread of wildland fires (FWS 1989).

Wildland fire suppression is coordinated by the South-Central Idaho Interagency Dispatch Center (SCHDC), a cooperative arrangement between BLM, Reclamation, FWS, U.S. Forest Service (USFS), National Park Service (NPS), and the State of Idaho. The primary function of the SCHDC is to provide cost-effective and timely responses to wildland fire incidents, primarily through initial attack using the closest available forces regardless of jurisdiction. BLM is the major provider of wildland fire supression services, providing staffing and equipment for initial fire attack and full supression. A typical response to a wildland fire includes two small engines, each staffed by 2 to 3 person crews, a larger engine with five personnel, a single-engine aerial tanker and a helicopter (Personal Communciation, Mike Aoi, June 6, 2002). The closest BLM fire station to the Study Area is in Burley. This station maintains four small engines and one large engine. A BLM fire response helicopter is based in Jerome and two single engine tankers are based at the Twin Falls Airport (Personal Communciation, Mike Aoi, June 6, 2002).

Reclamation and the BLM have had a long standing (since 1955) relationship for wildland fire suppression. The agencies have an agreement that authorizes BLM to provide wildland fire suppression activities on certain withdrawn and acquired lands under Reclamation's jurisdiction in the region. Most of the lands within the Study Area are provided coverage through this agreement.

Fires occuring at the Lake Walcott State Park and Minidoka Dam are the responsibility of the East End Fire Department, which is co-located with the City of Rupert Fire and Rescue Department. The East End Fire Department consists of four units including a 3,500-gallon tanker, a 1,000 gallon foam unit, a 1,000-gallon pumper, and a quick response unit staffed by 20 volunteer fire fighters. The City of Rupert Fire and Rescue Department has responsibility for confined space and high angle rescues occuring at the Lake Walcott State Park and Minidoka Dam. Response time to Lake Walcott State Park and Minidoka Dam is estimated to be 10 to 15 minutes. There have not been any emergencies at Lake Walcott State Park and Minidoka Dam that required response by either fire department in recent memory (Personal Communication, Larry Pool, August 15, 2002).

The East End Fire Department is a division of the Minidoka County Fire Protection District, consisting of four fire stations in Minidoka County. The Minidoka County Fire Protection District has had a mutual aid agreement with BLM since 1966 facilitating coordinated fire response throughought the Study Area (Personal Communication, Larry Pool, August 15, 2002). BLM does not provide structural fire suppression services.

The FWS provides wildland fire suppression activities for those lands within the Study Area that are located within the Minidoka NWR, but not including Lake Walcott State Park or the Minidoka Dam. Those lands are included in the FWS Wildland Fire Management Plan for the Southeast Idaho National Wildlife Refuge Complex, 2001.

3.11.1.2 Law Enforcement

The majority of the Study Area is located within an area patrolled by the Minidoka Sheriff's Office. This agency is staffed by 38 sworn officers who patrol the area on a four-shift rotation. The area is patrolled by 17 patrols, each cruiser operated by a single officer. In addition, the Minidoka Sheriff's Office patrols the waters of the Snake River between the Minidoka Dam and the Milner Dam as well as the western part of Lake Walcott. The Cassia County Sheriff's Department patrols Reclamation parcels located in Cassia County. They provide 24-hour scheduled coverage by 27 sworn officers, including 5 resident deputies plus an additional 10 volunteer reserves.

Currently, no formal agreement exists between the Minidoka and Cassia County Sheriff's Offices and Reclamation; however, the patrol area does include Reclamation lands. Principal law enforcement concerns relevant to Reclamation includes illegal dumping, unauthorized ORV and firearm use, vandalism, and drug interdiction. The water patrol, which uses both personal watercraft and boats, also enforces the State's boating laws and provides law enforcement on behalf of Jerome and Blaine counties (Personal Communication, Dan Kindig, May 29, 2002). The Minidoka Sheriff's Office has expressed interest in increased access to the river for patrol purposes through Reclamation property. Cassia County Sheriff's Department patrols Bishop's Hole at least once daily for illegal camping, dumping, and other concerns (Personal Communication, Cary Bristol, June 21, 2003).

3.11.1.3 Water Supply

Irrigation

The major water agencies within the Study Area are A&B and MID. Both irrigation districts supply irrigation water to the majority of farms located within district boundaries. Their resources and coverage are described in Section 3.9, *Land Use*.

Water Rights

In the state of Idaho, water rights within the borders of A&B and MID are delivered to individual farm units. In most cases, the farm unit is irrigated with water obtained from the irrigation district through exercise of the water right obtained under a repayment contract with Reclamation. Reclamation holds title to these water rights for the beneficial use of the water users who entered into repayment contracts. In contrast to private lands within the irrigation district boundaries, most Reclamation parcels do not hold water rights. As a result, these parcels

cannot legally be irrigated with project water unless a water right (and associated construction, operation, and maintenance costs) can be transferred from another parcel, which is a legally and administratively cumbersome process, and therefore highly unusual. Urban parcels within the irrigation district that are no longer farmed provide a possible source for additional water rights.

Domestic Water

Domestic water used by residents of rural parts of the Study Area, including inhabitants of Reclamation parcels, depend on well water drawn from the Snake River Plain Aquifer, the sole-source aquifer for the region.

3.11.1.4 Wastewater Treatment and Irrigation Nutrient Management

Irrigation Return Flow

Irrigation return flow is drained from farm land through a series of drains. Historically, most of the return flow from MID returned to the Snake River while most A&B return flow was discharged back into the aquifer using injection wells. Reclamation has strongly supported discontinuing this practice to protect water quality. Irrigation return flow is described in Section 3.3, *Water Quality and Contaminants*.

Domestic Sewage

Wastewater is collected by municipal sewage collection and treatment systems operated by all the jurisdictions in the Study Area. These serve both residential and industrial waste water generators. Outside of local city limits, residents rely on septic systems for wastewater treatment, including homes on Reclamation lands occupied by A&B employees (Personal Communication, Dan Temple, June 6, 2002). The City of Rupert relies on land leased from Reclamation for disposal of wastewater. Rupert uses an irrigation pivot to spray wastewater on private farm fields and one 160-acre farm located on Reclamation parcel 824-11-W to dispose of municipal and industrial wastewater. As this facility nears its 3.5 million gallon per day capacity, Rupert will need to expand its facilities to another site. The new facilities may recycle the wastewater for municipal irrigation, reducing the need for irrigation water and land for storage lagoons during the summer (Personal Communication, Richard Castro, August 14, 2002). Rupert's current plans include doubling its existing two irrigation pivots to four within the next 4 years, depending on population growth (Personal Communication, David Joyce, June 22, 2003).

3.11.2 Environmental Consequences

3.11.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

With some minor exceptions discussed below, none of the alternatives adversely impact public services and utilities. In most cases, the alternatives would either not affect or improve relevant public services and utilities. Because the alternatives would not directly affect emergency medical service or any utility issues other than irrigation return flow disposal, only fire suppression, law enforcement, and irrigation return flow are evaluated. In general, all three alternatives are nearly identical in terms of public services and utilities and related impacts.

To protect, restore, and enhance the natural resource values of RMP lands, as well as address public safety-related concerns, Reclamation would develop and implement a comprehensive fire

management plan under Alternative A. The plan would include agreements for fire prevention, fuels management, and land rehabilitation. This action would likely improve coordination between resource managers and fire responders resulting in positive impacts.

Alternative A contains several provisions affecting law enforcement. These include monitoring Reclamation lands for unauthorized uses such as dumping, beginning to enforce existing vehicular access regulations, and enforcement of prohibitions on concentrated shooting and target practice. These actions emphasize the existing case-by-case approach that falls short of the more comprehensive approach of the action alternatives. Also, the continued lack of formalized management of day-use sites such as Bishop's Hole would likely continue to fail to address vandalism and other undesirable behavior.

Reclamation would continue to allow the irrigation districts to create drain water wetlands on lands retained for project purposes to manage drain water and facilitate closure of groundwater injection wells on a case-by-case basis (the intent is to close all drain wells by the end of calendar year 2006). This dual-purpose approach would continue to benefit water quality by preventing aquifer contamination from excessive nutrients, chemicals, and other pollutants present in agricultural runoff. This action would continue to have positive resource impacts.

Mitigation and Residual Impacts (Alternative A)

Mitigation measures are not necessary because no substantial adverse or residual impacts are expected under the No Action Alternative.

3.11.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Like the No Action Alternative, Alternative B would specifically address fire suppression, law enforcement, and irrigation return flow. There are no significant differences between Alternative B and the No Action Alternative in terms of fire suppression or irrigation return flow treatment and their associated impacts. Alternative B does include a more proactive approach toward law enforcement. In addition to monitoring unauthorized use problems on a case-by-case basis, implementation of Alternative B would survey sites to determine the extent of the problems, characterize dump contents, prioritize cleanup, and attempt to identify those responsible for the offense. Also, in addition to enforcement of existing vehicular access regulations, implementation of Alternative B would include development and implementation of an Access Management Plan. The plan would designate vehicular and non-vehicular trails, and close vehicular routes through high value habitat. Likewise, from a law enforcement perspective, these actions would require greater enforcement efforts by Reclamation and coordinating agencies, but would nonetheless result in associated positive resource impacts. Restrictions on concentrated shooting and target practice would be the same as under the No Action Alternative.

Mitigation and Residual Impacts (Alternative B)

No mitigation measures are necessary because no adverse impacts are expected under Alternative B. Because there are no identifiable adverse impacts requiring mitigation, there are no anticipated residual impacts.

3.11.2.3 Alternative C: Multiple Use Emphasis

Alternative C is similar to Alternative B in terms of fire suppression, law enforcement, and irrigation return flow treatment. The only difference is with regard to access management. In contrast to the more restrictive access provisions included in Alternative B, the Access Management Plan envisioned under Alternative C would not focus on habitat protection and would close fewer access roads. This could increase the burden on law enforcement resources relative to Alternative B, as a relatively larger number of roads and trails would require patrolling, although no significant adverse impacts are anticipated under this alternative.

Mitigation and Residual Impacts (Alternative C)

No mitigation measures are necessary because no notable impacts are expected under Alternative C. Because there are no identifiable adverse impacts requiring mitigation, there are no anticipated residual impacts.

3.12 Environmental Justice

3.12.1 Affected Environment

In February 1994, the President issued EO 12898 that requires all Federal agencies to seek to achieve environmental justice by "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations" (EO 12898).

The RMP and NEPA environmental review process for the Minidoka North Side RMP complied with Executive Order 12898 by identifying minority and low-income populations early in the process and incorporating the perspectives of these populations into the decision-making process.

The Department of Housing and Urban Development (HUD) defines low income as 80 percent of the median family income for the area, subject to adjustment for areas with unusually high or low incomes or housing costs. Based on the HUD standard, of the three counties within the Study Area, only Minidoka County (with an average 2003 per capita income of $19,664) would be considered a low-income population in Idaho, comprising only 77 percent of the statewide 2003 per capita income of $25,476. Based on current economic trends, there is no evidence that Minidoka County is likely to change its low income status within the immediate future. Cassia County could potentially slip into the low income category as well due to the loss of approximately 650 jobs from the closing of a local potato processing plant (Idaho Statesman 2003).

Hispanics comprise the only sizable minority population within the Study Area, accounting for 25.5 percent of the population of Minidoka County, 18.7 percent of the population of Cassia County, and 17.2 percent of the population of Jerome County. Including Native Americans, African Americans, or Asian Americans, no other single minority population accounts for more than 1 percent of the region's population.

3.12.2 Environmental Consequences

None of the alternatives are expected to affect environmental justice. Therefore, mitigation measures are not necessary because no substantial adverse or residual impacts to environmental justice are expected.

3.13 Cultural Resources

3.13.1 Affected Environment

Evidence of human occupation in south-central Idaho dates as early as 14,500 years before the present (B.P.). The three major prehistoric cultural periods that have been identified for southeastern Idaho also apply to south central Idaho:

- Early Prehistoric Period (15,000 to 7,500 B.P.)
- Middle Prehistoric Period (7,400 to 1,300 B.P.)
- Late Prehistoric Period (1,300 to 150 B.P.)

These periods reflect a shift over time from a highly mobile lifestyle involving hunting and gathering (such as seeds, roots, mammals, and fish), to reduced mobility and intensified use of certain highly productive resources (such as camas and salmon). Many archaeological sites near the Minidoka North Side RMP Study Area have yielded diagnostic artifacts, indicating that the Study Area was occupied or used during all three prehistoric periods.

The Study Area is within the Snake River Basin, which was traditionally used by the Shoshone and Bannock Tribes for gathering plants for food and medicine, hunting, fishing, trading, and for ceremonial purposes. The Shoshone and Bannock Tribes of the Fort Hall Reservation, Idaho, represent two linguistically distinct populations of people. The length of time these tribes have occupied southern Idaho is a subject of long-standing debate among scholars. Subsistence practices and lifestyles were similar to other Great Basin cultural groups. Because the environment could not sustain large populations, people moved from one resource to the next, relying on a wide variety of resources, including roots, berries, nuts, marmots, squirrels, rabbits, insects, large game, and fish. By the time of the earliest Euroamerican contact in the early 1800s, the Shoshone and Bannock Tribes had acquired the horse, making it easier to procure bison and other resources, and to trade.

The earliest Euroamericans in south-central Idaho came to develop the fur trade, to convert the Native Americans, or to explore and survey the region. The major east-west travel route of these early explorers passed through the (now) Minidoka North Side RMP Study Area along the Snake River. Portions of the route later became the Oregon Trail, first used by emigrants in 1841. Settlement of south-central Idaho began in the 1870s, mainly associated with the expansion of Mormon communities out of Utah. The arrival of the railroad in the early 1880s was crucial to the development of southeastern Idaho, with several Union Pacific branch lines created in what is now the Study Area. Agriculture served as the primary economic activity in late 19th and early 20th centuries, and irrigation systems were of signal importance to that development. In 1894, Congress passed the Carey Act to encourage state and private cooperation in developing irrigated agriculture, and 8 years later it created the Reclamation Service to federalize irrigation in the west. One of the earliest Federal reclamation projects in Idaho, the Minidoka Project of 1904, provided for the construction of Minidoka Dam in 1904 to 1906, and other dams in the region, as well as thousands of miles of canals, laterals, and drains.

Indian relationships with Euroamericans deteriorated as the number of emigrants and settlers increased in the middle and late 1800s. Treaties with the United States Government in 1863 and 1868, and establishment of the Fort Hall Reservation in 1867, confined the Shoshone-Bannock and opened the area for Euroamerican settlement. Continuing hostilities, however, led to military action by the U.S. Government, including the Bannock War of 1878. Following the Bannock War, Congress reduced the area of the Fort Hall Reservation several times.

A total of 132 cultural resource sites (including isolates) within the boundaries of the Minidoka North Side Study Area have previously been filed on forms at the Idaho State Historic Preservation Office (SHPO). The sites include 47 archaeological sites, 78 historic structures or features, and 7 sites of undetermined chronology or affiliation. Other cultural resource sites have been identified but not formally recorded within the boundaries of the Study Area. Those sites are not included in this count of cultural resource sites.

Most of the archaeological sites are deposits of prehistoric artifacts, usually obsidian, ignimbrite, and cryptocrystalline silicate (chert, jasper, or chalcedony) flakes produced in tool manufacture. Sometimes these artifacts are found in association with other stone tools (for example, bifaces, hammerstones, scrapers, and metates), pieces of animal bone, or ceramic potsherds. Prehistoric site types in the Study Area include open sites (lithic scatters), rock shelters, and stacked rock features (including cairns, possible hunting blinds, and wall structures of undetermined function). Diverse cultural activities and widespread use of the project area in prehistoric times is reflected in the range of site types, site location/environmental association, and variability in site size. Excavations at archaeological sites near the Minidoka North Side Study Area (but not in the Study Area) contain cultural deposits that provide circumstantial evidence for intensive prehistoric use of the Study Area over time.

The historic period sites recorded in the Study Area represent a wide variety of resources related to transportation (ferries, roads, bridges, and railroads), irrigation (dams, canals, and buildings), gold mining (placer mines), and residential activities (town sites, a work camp, trash scatters and dumps, buildings, foundations, and a cemetery).

A Class I inventory of existing information for the Minidoka North Side RMP Study Area characterizes lands administered by Reclamation as rich in cultural and paleontological resources. Of the cultural sites known in the Study Area, those listed in Table 3.13-1 are considered eligible for the National Register of Historic Places (National Register). These sites (as well as other sites that remain to be identified and evaluated for the National Register) have the potential to address research questions or to offer vital information about the prehistoric or historic use of the Study Area.

TABLE 3.13-1

Cultural Sites that are Eligible for the National Register of Historic Places

Identification Number	Description	Identification Number	Description
10CA630	prehistoric lithic scatter	00-078	historic “North Side Canal”
10CA653	historic “H” Canal	10MA19	historic dump
10CA654	historic “J” Canal	10MA20	historic dump
10CA655	historic “G” Canal	10MA21	historic dump
10CA862	historic “Oregon Trail” South Side Alternate	10MA24	historic dump
10CA873	historic “Milner Lowlift Canal”	10MA27	historic dump
10JE47	prehistoric rock shelter—ARPA Site	10MA33	prehistoric lithic scatter
10JE54	prehistoric lithic scatter—”Twin Lakes Site”	10MA41	prehistoric lithic scatter
10JE57	historic dump	10MA44	prehistoric lithic scatter
10JE59	historic “Stage Road”	10MA49	historic camp—”Walcott Park”
10JE60	prehistoric lithic scatter—”Duck Rock Site”	10MA144	historic “Oregon Short Line”
10JE62	prehistoric lithic scatter—”Dike 3 Site”	67-554	historic “Minidoka Dam and Powerplant”
10JE77	prehistoric lithic scatter	10TF463	historic “Oregon Trail”
10JE79	prehistoric lithic scatter	10TF1105	historic “Milner”
10JE81	prehistoric lithic scatter	10TF1106	historic/prehistoric multi-component—”Alveolus Site”
10JE82	prehistoric lithic scatter	10TF1135	historic “Oregon Trail at West Milner”
10JE113	prehistoric lithic scatter	10TF1279	historic “Milner Lowlift Canal”
10JE146	historic “Oregon Short Line”	10TF1280	historic “Twin Falls Main Canal”
01-1302	historic “Sprague House”	83-772	historic “Milner Dam”

Source: Compilation of data from Reclamation cultural resources reports, including Ozbun et al. 2000

Tribal members are reluctant to provide specific information about locations where traditional artistic, economic, or other cultural practices were conducted within the Study Area. However, certain natural resources within the Study Area are still used by Shoshone-Bannock Tribal members, although access to these resources has been restricted by historical and modern development, especially development related to irrigation and agriculture. Resources identified include round rocks found near the river for use in sweats and other ceremonies; pine nuts, chokecherries, sagebrush and roots used for food, medicine, and trading; animals such as deer and groundhog used for food and clothing; and fish, especially from the Snake River, for food.

The potential for encountering fossils in the Minidoka North Side Study Area is high in areas of Snake River alluvium (sands, gravels, and lake beds). All of the vertebrate fossils found to date on or near the Study Area were discovered during construction of the Minidoka Dam and gravel quarrying along the Snake River. These well-preserved fossils include many classic extinct animals from the late Pleistocene, including camels, musk ox, horses, mammoth, and ground sloth. Well-preserved paleontological faunas could also occur in some basalt flows on the northern margin of the Study Area.

3.13.2 Environmental Consequences

3.13.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Only a small percentage of the RMP Study Area has been intensively surveyed for cultural resources; therefore, any discussion of environmental consequences is necessarily limited to general observations. Cultural resources would continue to be identified, protected, and managed on a project-specific basis, in response to individual Reclamation-initiated or Reclamation-sponsored actions that pose a threat to cultural resources. The predominant mode for managing cultural resources would be one of reacting to specific actions on a case-by-case basis, instead of generating protection from within the cultural resources program (that is, a proactive approach). Significant cultural properties would be protected because of legal requirements to do so, not through any agency comprehensive plan or program initiative.

Under existing management (as well as the other RMP alternatives), archaeological deposits that are exposed would continue to be degraded by natural forces such as erosion, by vandalism and relic collecting, and by Reclamation-sponsored or initiated actions within the RMP Study Area. The net effect of these actions upon cultural resource sites would be to disturb the horizontal and vertical context of artifacts and other cultural materials, thus destroying scientifically and culturally valuable depositional data about the site; the result would be loss of information about the early peoples who inhabited the area and whose activities created the site. These effects tend to be cumulative, annually impinging on the integrity of the cultural property and its potential eligibility to the National Register.

Management of the area within the boundaries of the Minidoka North Side RMP would be on an ad hoc basis, without benefit of a management plan. Several activities routinely conducted under Alternative A within the RMP area can adversely affect cultural resources because of an informal, unstructured approach that may not consider far-reaching effects to natural and cultural resources. These activities include minimal public information programs; lack of pro-active strategies for identifying, evaluating, and protecting cultural resources (i.e., Section 110 activities); lack of a vehicle access plan; continued ad hoc management at Lake Walcott State Park without guidance under a Historic Preservation and Maintenance Plan; lack of formalized management at day use sites; and minimal oversight of ad hoc camping. Direct impacts to archaeological and other cultural sites from “benign neglect” and inaction related to these Alternative A activities could result in artifact compaction, dispersal, or removal, leading to destruction of the horizontal and vertical context of the site, and to loss of potential for providing scientific information about the site.

Mitigation and Residual Impacts (Alternative A)

Mitigation under Alternative A (and Alternatives B and C) would occur if cultural resources are present that are eligible for the National Register, and if they are being adversely impacted by reservoir operations or land uses or are being damaged by natural agents. If an action is planned that could adversely impact an archaeological, traditional, or historic resource, Reclamation will investigate options to avoid the site (always the preferred option). Cultural resource management actions for impacted sites will be planned and implemented in accordance with consultation requirements defined in 36 CFR 800, using methods consistent with the Secretary of the Interior's Standards and Guidelines. NAGPRA will be implemented when remains or items that fall under the purview of that statute are located.

3.13.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

There is a greater potential for beneficial effects to cultural resources from Alternative B than from Alternative A or Alternative C. Reclamation is required to take into account the effects of its actions upon cultural properties under any of the alternatives, and Section 106 and 36 CFR 800 will be followed for undertakings within the Study Area. However, Alternative B does provide greater opportunities for proactive, non-reactive cultural resource management than either of the other alternatives. Alternative B (and to a lesser extent Alternative C) does not rely on reactions to Reclamation undertakings to trigger protection of cultural resources.

Possible erosional impacts from natural forces, as well as adverse effects from relic collecting (especially in focused use areas such as Walcott Park), would continue under this alternative. Nevertheless, actions recommended under Alternative B are more focused, controlled, and confined to limited areas, thereby rendering Alternative B more beneficial to cultural resources than either Alternative A or Alternative C.

Under Alternative B, proactive management of cultural resources assumes a more prominent role than in either of the other alternatives. Under Alternative B, Section 110 archaeological surveys would be conducted to identify new, previously unrecorded sites, for the purpose of increasing our knowledge base of these resources and being able to plan for their protection. Cultural resource protection would be included in a Lake Walcott State Park Historic Preservation and Maintenance Plan; hence, cultural resource planning and protection would be incorporated into long-term plans for development and expansion of the park, as opposed to ex post facto reactions to specific projects within the park on a case-by-case basis. Importantly, the subtle and gradual cumulative impacts to historic Walcott Park that result from annual park expansion activities could be addressed in the context of long-term park management and protection of historic values.

In several Alternative B areas, efforts would be made to actively manage resources other than cultural resources in a manner that would benefit cultural resources. New agricultural leases would be issued only if there are no impacts to cultural (and other) resources. Sand and gravel extraction would be considered when it does not conflict with cultural resource values. More controlled access through an Access Management Plan and formalized trails and routes will reduce inadvertent trampling on and erosion to cultural resource sites (although they can open up new areas to surface modification and public use, causing direct and indirect disturbances to cultural sites). Increasing management oversight at areas where ad hoc day use and camping is

occurring, and confining camping to Walcott State Park, will minimize looting and artifact collection activities. Implementing actions to aggressively eliminate trespass, encroachment, and other unauthorized uses will reduce physical impacts to cultural sites. Alternative B provides for a more extensive public information effort than Alternative A does by emphasizing cultural and other values. This could further cultural resource program objectives by fostering, through public awareness, an appreciation and respect for those resources.

Mitigation and Residual Impacts (Alternative B)

Mitigation is the same as described for Alternative A.

3.13.2.3 Alternative C: Multiple Use Emphasis

Impacts resulting from natural agents or human-caused factors would continue under this alternative. However, because Alternative C provides for higher levels of expansion of recreation facilities and access than the Alternative B, it does have a greater potential to impact cultural resources, directly and indirectly. Under Alternative C, facilities would be provided at dispersed campsites, actions not envisioned under Alternative B. Construction of such facilities could directly impact archaeological or traditional cultural properties that might be in proximity to the developments. Indirect impacts resulting from vandalism and unauthorized artifact collecting would be expected to occur as a result of increased visitation and public use of these areas. Alternative C also allows for greater access for multiple uses, resulting in the opening of more roads, causing effects similar to those described above for expanding recreation facilities.

Mitigation and Residual Impacts (Alternative C)

Mitigation is the same as described for Alternative A.

3.14 Indian Sacred Sites

3.14.1 Affected Environment

Sacred sites are defined in EO 13007 as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian Tribe, or an Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion..." Under EO 13007, Federal land managing agencies must accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and avoid adversely affecting the physical integrity of such sacred sites.

No information on specific sacred properties or locations within the Minidoka North Side Study Area has been provided by tribes. Nevertheless, certain ceremonial activities and practices with possible sacred or religious components continue to occur in the RMP Study Area. Within the Study Area, for example, Shoshone-Bannock tribal members collect rocks for ceremonial purposes. Various natural and physical features that may be present on the Study Area landscape—such as foothills, buttes, springs, lakes, and rivers—derive their sacredness and power from a natural undisturbed state. In addition, certain cultural sites may be regarded as sacred to tribes, including, for example, burial places, petroglyph and pictograph sites, important travel routes, and battle or massacre sites, among others.

3.14.2 Environmental Consequences

3.14.2.1 Alternative A (No Action Alternative): Continuation of Existing Management Practices

Possible impacts on Indian sacred sites from a continuation of existing management practices in the area of the RMP (or from new management practices or activities) can only be dealt with in a general fashion since the specific nature and location of sacred properties is unknown. If sacred sites are located in the area of potential effect of a Reclamation project, their integrity is compromised by actual physical disturbances as well as visual or auditory intrusions resulting in changes in character, feeling, and association of the site. In such cases, their "sacredness" and importance as a religious or sacred site is diminished. As with cultural resources, sacred sites are compromised by vandalism and relic collecting, by land use activities, and recreation and other development.

Mitigation and Residual Impacts (Alternative A)

Executive Order 13007 does not authorize agencies to mitigate for the impact of their actions upon Indian sacred sites. However, it does direct them to avoid adverse impacts whenever possible. For future Reclamation actions in the RMP area that could impact Indian sacred sites, Reclamation will consult with tribes in conjunction with any 36 CFR 800 consultations. Under these consultations, Reclamation will seek means to avoid adverse impacts to sacred sites.

3.14.2.2 Alternative B (Preferred Alternative): Resource Protection/Enhancement Emphasis

Alternative B is basically the same as Alternative A. However, because of more focused, controlled, and formalized land use activities—along with the cultural resources protection orientation of this alternative—potential impacts to sacred sites under Alternative B would be less than for Alternative A.

Mitigation and Residual Impacts (Alternative B)

Mitigation is the same as described for Alternative A above.

3.14.2.3 Alternative C: Multiple Use Emphasis

Potential impacts on Indian sacred sites under this alternative would be greater than for Alternative B because of the alternative placing less of an emphasis on cultural resources protection than Alternative B.

Mitigation and Residual Impacts (Alternative C)

Mitigation is the same as described for Alternative A above.

3.15 Indian Trust Assets

3.15.1 Affected Environment

ITAs are legal interests in property held in trust by the United States for Indian tribes or individuals. The Secretary of the Interior, acting as the trustee, holds many assets in trust for Indian tribes or Indian individuals. Examples of things that may be trust assets are lands, minerals, hunting and fishing rights and water rights. While most ITAs are on-reservation, they may also be found off-reservation.

The United States has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian tribes or Indian individuals by treaties, statues, and executive orders. These are sometimes further interpreted through court decisions and regulations.

The Shoshone-Bannock Tribes, a Federally recognized Tribe located at the Fort Hall Indian Reservation in southeastern Idaho, have trust assets both on- and off-reservation. The Fort Bridger Treaty was signed and agreed to by the Bannock and Shoshone headman on July 3, 1868. The treaty states in Article 4 that members of the Shoshone-Bannock Tribe "…shall have the right to hunt on the unoccupied lands of the United States…"

The Tribes believe their right extends to the right to fish. The Fort Bridger Treaty for the Shoshone-Bannock has been interpreted in the case of State of Idaho v. Tinno, an off-reservation fishing case in Idaho. The Idaho Supreme Court determined that the Shoshone word for "hunt" also included to "fish." Under Tinno, the Court affirmed that the Tribal members' right to take fish off-reservation pursuant to the Fort Bridger Treaty (Shoshone-Bannock Tribes 1994).

The Nez Perce Tribe is a Federally recognized Tribe of the Nez Perce Reservation in northern Idaho. The United States and the Tribes entered into three treaties (Treaty of 1855, Treaty of 1863, and Treaty of 1868) and one agreement (Agreement of 1893). The rights of the Nez Perce Tribes include the right to hunt, gather, and graze livestock on open and unclaimed lands, and the right to fish in all usual and accustomed places (Nez Perce Tribe 1995).

The Northwestern Band of the Shoshone Indians, a Federally recognized Tribe without a reservation, possess treaty protected hunting and fishing rights which may be exercised on unoccupied lands within the area acquired by the United States pursuant to the 1868 Treaty of Fort Bridger. No opinion is expressed as to which areas maybe regarded as "unoccupied lands."

Other Federally recognized Tribes that do not have off-reservation ITAs, may however have cultural and religious interests in the areas being considered in the RMP. These interests may be protected under historic preservation laws and NAGPRA. See Sections 3.13, *Cultural Resources*, and 3.14, *Indian Sacred Sites*, for a discussion of other Tribal interests.

3.15.2 Environmental Consequences

There is no universally accepted understanding as to the specific treaty rights to hunt and fish in the vicinity of the Minidoka North Side lands since there has not been a settlement with either

the Nez Perce Tribe, the Shoshone-Bannock Tribes or the Northwestern Band of the Shoshone Nation as to the extent and nature of their off-reservation hunting and fishing treaty rights. Thus, ITA's considered are tribal hunting and fishing rights that may exist. Water rights claims, or lack of such claims, within the Snake River Basin Adjudication are not necessarily determinative of these kinds of rights.

There are no significant impacts to the right to hunt, right to fish or right to gather under Alternatives A, B or C.

The impacts to resources associated with these rights are discussed at 3.5, *Wildlife;* 3.6, *Aquatic Biology; and* 3.9, *Land Use and Management*. Hunting is discussed under 3.9, *Land Use and Management*.

Mitigation and Residual Impacts

No mitigation measures are proposed for any of the three alternatives because no impacts would occur to tribal rights from their implementation. No residual impacts would occur as a result of any of the three alternatives.

4.0 CONSULTATION AND COORDINATION

4.1 Public Involvement

Reclamation's approach to preparing the RMP and associated Draft EA has been to involve the public, particularly by developing a dialogue with local stakeholder groups. The goal of the public involvement process was to make sure that all stakeholders, including the general public, have ample opportunity to express their interests, concerns, and viewpoints, and to comment on the plan as it was developed. By fostering two-way communication, Reclamation was also able to use the talents and perspectives of local user groups and agencies during the alternatives development process.

Reclamation's public involvement process has involved the following five key components:

- **Newsbriefs**—A newsletter was initially mailed to nearly 200 user groups, nearby residents, and agencies. The mailing list is continuously expanded as more interested parties are identified. Five newsbriefs have been released, with one more scheduled upon completion of the Final EA and RMP.
- **Public Meetings/Workshops**—Three public meetings are included in the RMP/EA planning process. One was held early on in the process to solicit public input (scoping) related to issues and opportunities. The second meeting was held March 2003 to further refine the alternatives. The final public meeting was held in April 2004 to take public comments on the Draft EA. Public meetings were held in Burley, Idaho.
- **Ad Hoc Work Group**—This group consists of 21 representatives from interested groups and agencies. They met seven times throughout the RMP development process to identify issues and assist with RMP update and alternatives development.
- **RMP Study Web Site**—The newsbriefs, draft materials, and meeting announcements are continuously updated at a dedicated website on Reclamation's Pacific Northwest site: http://www.pn.usbr.gov.
- **News Releases**—Periodically, Reclamation prepares news releases for distribution to local news media. Such news releases generally result in press coverage of the RMP process.

In February 2002, the first newsbrief introduced the RMP process, announced the first public meeting, and provided a mail-in form for submitting issues and initial comments on the management of parcels in the Minidoka North Side RMP Study Area. Approximately 20 of these response forms were returned. The results of the mail-in response form and the issues raised at the first public meeting were summarized in the second newsbrief, mailed July 2002. The issues were listed in a table. The third newsbrief was mailed in December 2002 and provided an update of the AHWG process and the Problem Statement compiled from the public outreach to date. The fourth newsbrief was mailed in February 2003 and provided a summary of the RMP Draft Goals and Objectives, the draft alternatives, and announced the second public meeting and workshop. The fifth newsbrief, mailed at the beginning of April 2004, announced the availability of this Draft EA and provided a

date for the third (and final) public meeting. The sixth newsbrief will be mailed out to announce the release of the Final EA and completion of the RMP, expected in January 2005.

The first public meeting was held on March 6, 2002, in Burley. The purpose of this meeting was to conduct public scoping of the issues in the Minidoka North Side Study Area. Approximately 25 people attended the meeting. Reclamation provided information about the RMP planning process, then the participants broke into small work groups to discuss important issues and opportunities the RMP should address. The second public meeting was held one year later, on March 20, 2003. In the interim, the Reclamation Planning Team had conducted additional research and surveys on the parcels, and had drafted initial alternatives. The purpose of this meeting was to find out what alternative management concepts the public supports and why. This information was used to help refine the alternatives presented in this Draft EA. The third and final public meeting/workshop was held in Burley on April 22, 2004. Its primary purpose was to solicit comments on the Draft EA. This meeting followed a similar format as the previous two meetings, beginning with presentation of the alternatives. Attendees could then ask questions of the RMP team members at stations that emphasized particular portions of the plan.

The AHWG met in April, June, and August, 2002, and February and May, 2003. As part of the June 2002 meeting, the group spent a day touring the parcels in the Minidoka North Side RMP Study Area and becoming more familiar with the issues. The 21 members were of considerable assistance in the alternatives development process. A wide variety of viewpoints was included in the group. The Preferred Alternative was arrived at through AHWG discussions, and the recommendations of agency specialists and planners. The entities represented in the AHWG are listed in Table 4.1-1.

TABLE 4.1-1
AHWG Represented Interests

A&B Irrigation District	Minidoka County Historical Society
Adjacent Property Owners (2)	Minidoka County Sheriff's Office
Bureau of Land Management	Minidoka County Weed Control
Cassia County Commission	Minidoka Irrigation District
Cassia County Sheriff's Office	Natural Resource Conservation Service
City of Rupert City Council	Pheasants Forever
Idaho Department of Fish & Game, Region 4	Shoshone-Bannock Tribes
Idaho State Parks and Recreation	Shoshone-Paiute Tribes
Jerome County Commission	U.S. Fish and Wildlife Service, Minidoka Wildlife Refuge
Local Business Interest	
Minidoka County Commission	

4.2 Agency Consultation and Coordination

Reclamation consulted with several Federal and local agencies throughout the RMP process to gather valuable input and to meet regulatory requirements. This coordination was integrated with the public involvement process.

4.2.1 Endangered Species Act

The evaluation of endangered species contained in this Draft EA serves as Reclamation's biological assessment as required under the ESA. It evaluates impacts on listed and candidate species, including the Ute ladies'-tresses orchid, bald eagle, yellow-billed cuckoo, and three snail species. Reclamation has determined that the Preferred Alternative will have no effect on these species and is therefore not required to formally consult with FWS. As a result, Reclamation does not need concurrence from FWS.

4.2.2 National Historic Preservation Act

Reclamation has collected existing cultural resource information from the Minidoka North Side RMP Study Area to prepare the Draft EA, and to facilitate subsequent compliance with the NHPA. Coordination with the Idaho SHPO has occurred in conjunction with public review of the Draft EA. It is understood that specific, future undertakings in response to specific RMP prescriptions will require individual consultations with the SHPO and the Tribes pursuant to the 36 CFR 800 regulations.

4.3 Tribal Consultation and Coordination

4.3.1 Government-to-Government Consultation with Tribes

Reclamation has provided information regarding the RMP process through meetings and letters to the Fort Hall Business Council of the Shoshone-Bannock Tribes, the Tribal Council of the Shoshone-Paiute Tribes, the Tribal Council of the Northwestern Band of the Shoshone Nation, the Natural Resources Committee of the Nez Perce Tribe, and the Tribal Council of the Burns Paiute Tribe. Tribal representatives that will receive the Draft EA are listed in Chapter 7, Distribution List.

4.3.2 Indian Sacred Sites (Executive Order 13007)

Reclamation has informed the Shoshone-Bannock and Shoshone-Paiute Tribes about the RMP through written notifications and meetings. As part of their review of the Draft EA, Tribes have had an opportunity to provide specific comments about Indian sacred sites that might be located in the RMP Study Area.

4.3.3 Indian Trust Assets (ITAs)

As discussed above at Section 4.3.1, Government-to-Government Consultation with Tribes, Reclamation has met with Tribes that may have ITAs in the RMP area. Discussions of these rights are addressed in Chapter 3, Section 3.16, Indian Trust Assets.

4.3.4 Other Laws and Regulations

The relationship between Federal agencies and sovereign Tribes is defined by several laws and regulations addressing the requirement of Federal agencies to notify or consult with Native American groups or otherwise consider their interests when planning and implementing Federal undertakings. Among these are the following:

- NEPA
- Executive Order 12875, Enhancing the Intergovernmental Partnership
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- Presidential Memorandum: Government-to-Government Relations with Native American Tribal Governments, April 29, 1994
- Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

Reclamation has adhered to these laws and regulations as applicable to the development of the RMP.

5.0 ENVIRONMENTAL COMMITMENTS

5.1 Best Management Practices

The following BMPs will be implemented to avoid or minimize potential effects to the resources within the Minidoka North Side RMP Study Area that could occur if the Preferred Alternative were implemented. Although not listed here, the management actions identified in the Preferred Alternative as needed for proper stewardship of resources are also considered to be environmental commitments.

5.1.1 Landscape Preservation and Impact Avoidance

1. Developed facilities will complement with and be subservient to the surrounding landscape wherever possible.
2. Disturbed areas resulting from any construction will be aggressively revegetated.
3. To the maximum extent practicable, all existing native trees, shrubs, and other vegetation will be preserved and protected from construction operations and equipment except where clearing operations are required for permanent structures, approved construction roads, or excavation operations.
4. To the maximum extent practicable, all maintenance yards, field offices, and staging areas will be arranged to preserve trees, shrubs, and other vegetation.
5. Clearing will be restricted to that area needed for construction. In critical habitat areas including, but not limited to, wetlands and riparian areas, clearing may be restricted to only a few feet beyond the areas required for construction.
6. Stream corridors, wetlands, riparian areas, steep slopes, or other critical environmental areas will not be used for equipment or materials storage or stockpiling; construction staging or maintenance; field offices; hazardous material or fuel storage, handling, or transfer; or temporary access roads, in order to reduce environmental damage.
7. Excavated or graded materials will not be stockpiled or deposited on or within 100 feet of any steep slopes (defined by industry standards), wetlands, riparian areas, or stream banks (including seasonally active ephemeral streams without woody or herbaceous vegetation growing in the channel bottom), or on native vegetation.
8. To the maximum extent possible, staging areas, access roads, and other site disturbances will be located in disturbed areas, not in native or naturally occurring vegetation.
9. The width of all new temporary and permanent roads will be kept to the absolute minimum needed for safety, avoiding wetland and riparian areas where possible. Turnouts and staging areas will not be placed in wetlands.

5.1.2 Erosion and Sediment Control

1. The design and construction of facilities will employ applicable recognized BMPs to prevent possible soil erosion and subsequent water quality impacts.
2. The planting of grasses, forbs, trees, or shrubs beneficial to wildlife, or the placement of riprap, sand bags, sod, erosion mats, bale dikes, mulch, or excelsior blankets will be used to prevent and minimize erosion and siltation during construction and during the period needed to reestablish permanent local native vegetative cover on disturbed sites located outside of landscaped areas. Appropriate landscaping plants and materials will be used for such purposes in landscaped areas.
3. Final erosion control and site restoration measures will be initiated as soon as a particular area is no longer needed for construction, stockpiling, or access. Clearing schedules will be arranged to minimize exposure of soils.
4. Cuts and fills for relocated and new roads will be sloped to facilitate revegetation.
5. Soil or rock stockpiles, excavated materials, or excess soil materials will not be placed near sensitive habitats, including water channels, wetlands, riparian areas, and on native or naturally occurring vegetation, where they may erode into these habitats or be washed away by high water or storm runoff. Waste piles will be revegetated using suitable native species after they are shaped to provide a natural appearance.

5.1.3 Biological Resources

1. Rare and sensitive species clearances described below will be conducted after project authorization, but prior to the start of construction.
2. If native plant communities must be used for access roads or staging areas, site clearances at the appropriate time of year for the species involved will be conducted by qualified biologists to ensure sensitive species are not impacted. Any established search protocols will be followed. Additional information concerning avoidance of rare and threatened or endangered species is presented in Sections 3.4, 3.5, 3.6, and 3.7.
3. Where appropriate, construction activities that could impact native fish will be undertaken during non-spawning periods.
4. During the 15-year period covered by this RMP, species not currently protected under the Endangered Species Act may be listed and species that are not considered to be rare may become so. If any such species occur on Reclamation lands, Reclamation would develop and enforce appropriate site disturbance, time of year, and distance restrictions in areas harboring Federal and state designated species of special concern (including Federally designated endangered or threatened species and rare species).
5. The priority for protection and recovery of threatened, endangered, and rare species is a two step process through which it would first be determined if suitable habitat types for these species are present in the vicinity of a proposed action. If suitable habitat is present, site clearances following established survey protocols would be conducted before actions are implemented.

6. Weed control efforts using herbicides on Reclamation lands will be administered by a state-certified applicator, which is a state requirement for county applicators but not for other persons.

5.1.4 Site Restoration and Revegetation

1. Construction areas, including storage yards, will limit the amount of waste material and trash accumulations at all times.
2. All unused materials and trash will be removed from construction and storage sites during the final phase of work. All removed material will be placed in approved sanitary landfills or storage sites, and work areas will be left to conform to the natural landscape.
3. Upon completion of construction, any land disturbed outside the limits of reservoir pools, permanent roads, and other permanent facilities will be graded to provide proper drainage and blend with the natural contour of the land. Following grading, the disturbed areas will be revegetated using plants native to the area, suitable for the site conditions, and beneficial to wildlife.
4. Where applicable, Reclamation and contractors will consult with the following agencies to determine the recommended plant species composition, seeding rates, and planting dates:
    - Idaho Department of Fish and Game
    - U.S. Natural Resources Conservation Service
    - Idaho Department of Parks and Recreation
    - U.S. Bureau of Land Management
5. Native grasses, forbs, shrubs, and trees appropriate for site conditions and surrounding vegetation will be included on a plant list developed during site design. Species chosen for a site will be matched for site drainage, climate, shading, resistance to erosion, soil type, slope, aspect, and vegetation management goals. Wetland and riparian species will be used in revegetating disturbed wetlands. Upland revegetation shall match the plant list to the site's soil type, topographic position, elevation, and surrounding communities. Local native species will be used in all areas that are not landscaped.

5.1.5 Pollution Prevention

1. All Federal and State laws related to control and abatement of water pollution will be complied with. All waste material and sewage from construction activities or Project-related features will be disposed of according to Federal and State pollution control regulations.
2. Construction contractors may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit as established under Public Law 92-500 and amended by the Clean Water Act (Public Law 92-217).
3. Construction specifications shall require construction methods that will prevent entrance or accidental spillage of pollutants into flowing or dry watercourses and underground water sources. Potential pollutants and wastes include, but are not limited to, refuse, garbage, cement, concrete,

sewage effluent, industrial waste, oil and other petroleum products, aggregate processing tailings, mineral salts, drilling mud, and thermal pollution.

4. Eroded materials shall be prevented from entering streams or watercourses during dewatering activities associated with structure foundations or earthwork operations adjacent to, or encroaching on, streams or watercourses.

5. Any construction wastewater discharged into surface waters will be essentially free of settling material. Water pumped from behind cofferdams and wastewater from aggregate processing, concrete batching, or other construction operations shall not enter streams or watercourses without water quality treatment. Turbidity control methods may include settling ponds; gravel-filter entrapment dikes; approved flocculating processes not harmful to fish or other aquatic life; recirculation systems for washing aggregates; or other approved methods.

6. Any riprap shall be free of contaminants and not contribute significantly to the turbidity of the reservoir.

7. Appropriate controls to reduce stormwater pollutant loads in post-construction site runoff shall be followed. The appropriate facilities shall be properly designed, installed, and maintained to provide water quality treatment for runoff originating from all recreational facilities.

8. All parking lots and marinas shall be designed to promote efficient vehicle and boat traffic to prevent congestion and pollution.

9. Waste facilities shall be connected, whenever possible, to sanitary sewer systems instead of septic tanks to avoid water quality problems from failed tanks.

5.1.6 Noise and Air Pollution Prevention

1. Contractors will be required to comply with all applicable Federal, State, and local laws and regulations concerning prevention and control of noise and air pollution. Contractors are expected to use reasonably available methods and devices to control, prevent, and reduce atmospheric emissions or discharges of atmospheric contaminants and noise.

2. Contractors will be required to reduce dust from construction operations and prevent it from damaging dwellings or causing a nuisance to people. Methods such as wetting exposed soil or roads where dust is generated by passing vehicles will be employed.

5.1.7 Cultural Resource Site Protection

1. If necessary, Reclamation will prepare a Cultural Resources Management Plan (CRMP) to define long-term management and protection goals and processes. Conditions under which Reclamation would consider developing a CRMP would be tied to the nature of impacts happening to a particular cultural site or sites, the magnitude of such impacts, and the National Register quality of the site or sites being impacted.

2. If there are significant cultural resource sites that may be affected by a Reclamation action (including TCP's), Reclamation will consult with the SHPO and Shoshone-Bannock and Shoshone-Paiute Tribes about appropriate actions to take to protect those sites.

3. Cultural resource management requirements and goals shall be integrated into other management plans completed under the RMP, including the comprehensive wildlife management plan, fire management plan, and IPM Plan.
4. When implementing habitat restoration activities, plant resources that have traditional importance to the Shoshone-Bannock and Shoshone-Paiute Tribes shall be used, insofar as these plants accomplish the habitat restoration goal and are reasonably comparable in cost.
5. Information shall be provided about the prehistory and history of the RMP area, for the enjoyment of users.
6. Reclamation will coordinate with the BLM during the their resource management planning on lands adjacent to Reclamation's boundary, to identify actions they might implement that would aid in protecting cultural resources on Reclamation's lands.
7. Location-specific cultural resource clearances shall be obtained when the agency acts to enhance recreation and wildlife. Avoid adverse effects to significant cultural properties by relocating or redesigning any proposed development.
8. Cultural sites shall be stabilized or protected when avoidance is not possible. Test excavations will be conducted as necessary to determine if the sites are eligible for the National Register. Consultation, per 36CFR800, will also be conducted to determine site eligibility, project effect, and appropriate treatment of adversely affected Register-eligible sites.
9. Actions to protect human burials shall be initiated as soon as possible if they are reported to be exposed or endangered by reservoir operations, natural erosion, or land use. Unless the burials are clearly non-Indian, tribes potentially affiliated with the remains will be consulted upon discovery of a burial, and procedures for protection, treatment, and disposition of the remains will be worked out with those tribes in accordance with NAGPRA.
10. Archaeological collections shall be curated, in most cases, at the Southeastern Idaho Regional Archeological Center, Idaho State University, Pocatello, Idaho (except NAGPRA burials and cultural items). When NAGPRA burials or cultural items are recovered, procedures set forth in 43 CFR Part 10 for consultation and custody will be followed.
11. If consultation with Indian tribes reveals Indian sacred sites to be present that are being adversely affected by land use, Reclamation will implement actions to avoid or reduce those impacts.

5.1.8 Miscellaneous Comments

Reclamation-issued land use licenses, leases, and permits will contain sufficient language and stipulations to help protect existing resources and help mitigate possible conflicts among the various users and between visitors and adjacent land owners.

Specific mitigation requirements would be determined during site-specific facility designs. Access for and use of all planned improvements by persons with disabilities is required under Section 504 of the Rehabilitation Act, as amended. All new facilities will be installed, and all existing facilities will be retrofitted in accordance with current accessibility standards, including all access routes.

5.2 Mitigation Measures

Mitigation measures are environmental commitments intended to compensate for impacts that cannot be avoided through implementation of BMPs.

5.2.1 Soils

All roads, trails, and new or upgraded facilities shall employ designs that will not contribute to short- or long-term soil loss during and following construction and revegetation.

5.2.2 Vegetation

In addition to Reclamation's overall planned increase in noxious and invasive weed control efforts, all sites that are disturbed for facilities and trail construction shall be actively monitored for these plants. All infestations will be treated in accordance with accepted methods and agreements with IDFG and local counties and in accordance with Reclamation's IPM Plan.

If grazing is permitted on parcels with native vegetation, that is, parcels where cheatgrass is a component of sagebrush dominated landscapes, it shall be timed to occur only in late fall or early spring when cheatgrass is green and is most palatable to livestock and native vegetation is unavailable. If soil is saturated with water, grazing shall be postponed until soil dries to avoid hoof impact damage to soils and soil biotic crusts. Once cheatgrass is under control, the site shall be reseeded to native shrubs, grasses, and forbs and livestock shall be removed. Livestock will be kept out of playas and wetlands and a 200-foot perimeter around these areas shall be maintained to avoid damage to these resources. By adhering to these restrictions, livestock grazing is not likely to reduce native grasses and forbs on those parcels with a mixture of native vegetation and cheatgrass.

The state-certified weed applicator would have knowledge of native plants and specific training on identifying sensitive plant species so that these plants can be avoided during spraying.

5.2.3 Threatened, Endangered, Proposed, and Candidate Species

Site clearances for pygmy rabbits following established protocols would be conducted in all parcels with potentially suitable habitat before any of the activities that may be undertaken or permitted under Alternative B would be implemented. These activities include, but are not limited to, agricultural and grazing leases, sand and gravel extraction, habitat improvements and rehabilitation, and designation of roads as open to motorized vehicles. These activities would not be permitted or undertaken on parcels where pygmy rabbits are found in order to avoid all potential impacts on pygmy rabbits. Appropriate surveys in suitable habitat would also be undertaken before weed control and dump cleanup activities, which would continue as part of normal management activities. Weed control and dump cleanup would be modified as needed to avoid effects on pygmy rabbits.

Continued unauthorized use of dirt roads and trails by motorized vehicles and ad hoc camping have the potential of direct and indirect adverse impacts on pygmy rabbit habitat. Reclamation will develop and enforce an Access Management Plan for parcels with high habitat values, including

areas of actual or potential pygmy rabbit habitat. Pygmy rabbit and pygmy rabbit habitat surveys will be conducted on relevant parcels resulting from work/project proposals. Site clearances will be conducted for the purpose of determining the presence of pygmy rabbits and suitable pygmy rabbit habitat. If pygmy rabbits, or suitable habitat are found, all Reclamation activities and allowable public activities will be evaluated and conducted in a manner so as to protect and preserve the rabbits and their habitat. This includes, but is not limited to, the following: modifying project designs, modifying techniques, project/work relocation, project/work cancellation, and limiting public and vehicle access. In addition, habitat enhancement and protection measures will be implemented on parcels where pygmy rabbits, or pygmy rabbit sign, are found. Reclamation will prioritize road closures and enforcement actions and immediately focus its initial efforts on those parcels with better stands of native vegetation including sagebrush so that potential pygmy rabbit habitat is not further degraded by motorized vehicles. Reclamation will also continue to conduct informal field surveys of its lands to identify those that may harbor pygmy rabbits. In the event of a listing, formal field surveys of all potential pygmy rabbit habitat in the RMP Study Area would be conducted. Any parcels on which pygmy rabbits are found will be immediately closed to all vehicle use and ad hoc camping. These actions will substantially minimize, and eventually avoid all potential impacts on pygmy rabbits and actual or potential pygmy rabbit habitat.

5.2.4 Cultural Resources

Mitigation under all alternatives would occur if cultural resources are present that are eligible for the National Register, and if they are being adversely impacted by reservoir operations or land uses or are being damaged by natural agents. If an action is planned that could adversely impact historic properties, Reclamation would investigate options to avoid the site. Cultural resource management actions for impacted sites would be planned and implemented in accordance with consultation requirements defined in 36 CFR 800, using methods consistent with the Secretary of the Interior’s Standards and Guidelines.

6.0 PREPARERS

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Carolyn B. Coiner	Landscape Architect	Senior Review, RMP Manager
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David Stangel	GIS Specialist	Mapping
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7.0 DISTRIBUTION LIST

7.1 Overview

The Minidoka North Side RMP Final EA has been sent to the tribes, government officials, agencies, libraries, groups and organizations, and individuals named in the following distribution list. As noted, the Final EA is available for review at a local library; it is also available for viewing (and downloading, if desired) on Reclamation's web site.

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Dan Kindig
Minidoka County Sheriff's Office
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Minidoka Weed Department
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Steve Schuyler
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State of Idaho
Department of Lands
329 Washington
Gooding, ID 83330

State of Idaho
Department of Water Resources
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Twin Falls, ID 83301

Tri-County Noxious Weed Control
300 N Lincoln
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961 E Minidoka Dam Road
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7.5 Irrigation Districts

Dan Temple, Manager
A&B Irrigation District
P.O. Box 675
Rupert, ID 83350

Lynn Harmon, Manager
American Falls Reservoir District #2
P.O. Box C
Shoshone, ID 83352

Burley Irrigation District
246 E 100 S
Burley, ID 83318

Bill Thompson, Manager
Minidoka Irrigation District
98 West 50 South
Rupert, ID 83350

North Side Canal Company
921 N Lincoln
Jerome, ID 83338

7.6 News Media

Gooding County Leader
200 Main Street
Gooding, ID 83330-1186

Minidoka County News
Box 454
Rupert, ID 83350-0454

North Side News
133 E Main Street
Jerome, ID 83338-2332

Times News
Box 548
Twin Falls, ID 83303-0548

South Idaho Press
230 East Main
Burley, ID 83318

7.7 Libraries

Burley Public Library
1300 Miller Avenue
Burley, ID 83318

Rupert Public Library
417 7th Street
Rupert, ID 83350

7.8 Groups, Businesses, and Organizations

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Idaho Water Users Association
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Julie Thomas
Mid Snake Resource Conservation and Development Council
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Twin Falls, ID 83301

Harry Workman
Minidoka County Sportsmen's Club
P.O. Box 193
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7.9 Individuals

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Paul, ID 83347

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300 N 148 W
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8.0 GLOSSARY

1890 Act reserved rights-of-way	Rights-of-way, for ditches or canals constructed by the authority of the United States, were reserved in all patents issued on public lands west of the 100th Meridian entered after August 30, 1890. (Patents are the initial conveyance of public lands from the United States.) These reserved rights-of-way can be exercised either by Confirmation Deed, Right-of-Way Notice, or through construction itself.
A&B Irrigation District	The North Side Pumping Division. A&B irrigates 77,000 acres to the north of the Gravity Division, in Minidoka and Jerome Counties. Unit A (15,000 acres) is served by pumping from the Snake River. Unit B (62,000 acres) is irrigated from deep wells which tap the Snake Plain aquifer. Reclamation constructed the project in the 1950s.
Accessibility	Providing participation in programs and use of facilities to persons with a disability. Disability is defined with respect to an individual: (1) a physical or mental impairment that substantially limits one or more of the major life activities of such an individual; (2) a record of such an impairment; or (3) being regarded as having such an impairment.
Acquired Lands	Lands which Reclamation has acquired by purchase, donation, exchange, or condemnation.
Acre-foot	Volume of water (43,560 cubic feet) that would cover 1 acre of land, 1 foot deep.
Action Alternative	A change in the current management approach.
Affected environment	Existing biological, physical, social, and economic conditions of an area subject to change, both directly and indirectly, as the result of a proposed human action. Also, the portion of an environmental document describing current environmental conditions.
Algae	Mostly aquatic single celled, colonial, or multicelled plants, containing chlorophyll and lacking stems, roots, and leaves.
Algal bloom	Rapid and flourishing growth of algae.
Alluvial	Pertaining to or composed of alluvium, or deposited by a stream or running water.

Alluvium	An accumulation of sediments deposited by streams or rivers.
Alternatives	Courses of action that may meet the objectives of a proposal at varying levels of accomplishment, including the most likely future conditions without the management plan or action.
Amphibian	Vertebrate animal that has a life stage in water and a life stage on land (for example, salamanders, frogs, and toads).
Aquatic	Living or growing in or on the water.
Archeology	Related to the study of human cultures through the recovery and analysis of their material relics.
Archeological site	A discrete location that provides physical evidence of past human use.
Artifact	A human-made object.
Artificial Wetlands	Areas created to intentionally hold moisture or ponded water such that wetland vegetation (e.g. cattails, bulrush, sedges, willows) can establish, thus providing forage and shelter to numerous wildlife species and reducing sediment loads in the water.
Best Management Practices	Activities that are added to typical operation, construction, or maintenance efforts that help to protect environmental resources by avoiding or minimizing impacts of an action.
Burley Irrigation District (BID)	The South Side Pumping Division of the Minidoka Project. BID irrigates 48,000 acres, immediately south of the Snake River. Title to the U.S. facilities, lands, and interests in lands were transferred to BID on 2/24/00.
Community	A group of one or more interacting populations of plants and animals in a common spatial arrangement at a particular point in time.
Concentration	The density or amount of a substance in a solution (water quality).
Conservation Measures	Similar to mitigation measures (defined below), conservation measures are actions taken to avoid impacts to species protected under the Endangered Species Act.
Cubic foot per second (cfs)	As a rate of streamflow, a cubic foot of water passing a reference section in 1 second of time. A measure of a moving volume of water.

Cultural resource	Cultural resources are historic and traditional properties that reflect our heritage.
Drainwater Projects	Areas in which water is intentionally ponded such that injection of irrigation run-off water into the aquifer is reduced and, in some situations, lower water velocities allow sediment to precipitate out of the water column.
Drawdown	Lowering of a reservoir's water level; process of releasing reservoir storage.
Endangered species	A species or subspecies that is in danger of extinction throughout all or a significant portion of its range.
Eolian	Pertaining to sediment deposition by wind; such as loess and dune sand, or sedimentary structures such as wind-formed ripple marks. Erosion and deposition accomplished by the wind.
Ephemeral stream	A stream that flows only in direct response to precipitation, and thus discontinues its flow during dry seasons. Such flow is usually of short duration. Most of the dry washes of more arid regions may be classified as ephemeral streams.
Erosion	Refers to soil and the wearing away of the land surface by water, wind, ice, or other physical processes.
Eutrophic	A body of water with high nutrient levels.
Evapotranspiration	The amount of water that transpires through a plants' leaves, combined with the amount that evaporates from the soil in which it is growing.
Exotic species	A non-native species that is introduced into an area.
Facilities	Manmade structures.
Federal Lands	Lands, or interests in lands (such as easements and rights-of-way), owned by the United States.
Fish and Game Tracts/Wildlife Tracts	Certain Extension lands which were designated as wildlife habitat areas. These lands are managed by the Idaho Department of Fish and Game under agreements with Reclamation. The goal is to protect and improve these lands for long-range wildlife use as escape and winter cover.
Fish and Wildlife Service Species of Concern	Species identified by the U.S. Fish and Wildlife Service for which further biological research and field study are needed to resolve these species' conservation status.

Forb	Herbaceous plant that is not a grass, sedge, or rush. Non-woody herbs and wildflowers are examples of forbs.
Grass	Herbaceous plants with jointed stems, slender sheathing leaves, and flowers borne in spikelets of bracts.
Habitat	Area where a plant or animal finds suitable living conditions.
Hydrologic	Pertaining to the quantity, quality, and timing of water.
Indian Sacred Sites	Defined in Executive Order 13007 as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site."
Indian Trust Assets (ITAs)	Legal interests in property held in trust by the United States for Indian Tribes or individuals, such as lands, minerals, hunting and fishing rights, and water rights.
Injection wells	Some irrigation return flow from Unit B, the ground-water unit of the North Side Pumping Division is disposed of through injection wells which pass water directly underground into the Snake Plain aquifer. Injection wells are used because the area lacks natural surface drainage outlets. The North Side Pumping Division originally had 78 injection wells; about 27 of them are still in operation. These wells also provide drainage for stormwater runoff, which can amount to larger amounts of runoff than the Project irrigation return flows.
Intermittent streams	Streams that contain running water longer than ephemeral streams but not all year.
Juvenile	Young animal that has not reached reproductive age.
Migratory Birds	Most birds in North America are considered to be migratory birds under one or more of the four international Migratory Bird Treaty Conventions to which the United States is a signatory. Under provisions of the Migratory Bird Treaty Acts, it is unlawful "by any means or manner to pursue, hunt, take, capture, or kill" any migratory birds except as permitted by regulations issued by the FWS.

Minidoka Irrigation District (MID)	The Gravity Division of the Minidoka Project. MID irrigates 72,000 acres to the south of the North Side Pumping Division. Reclamation constructed the Project starting in 1905.
Mitigation measures	Action taken to avoid, reduce the severity of, or eliminate an adverse impact. Mitigation can include one or more of the following: (1) avoiding impacts; (2) minimizing impacts by limiting the degree or magnitude of an action; (3) rectifying impacts by restoration, rehabilitation, or repair of the affected environment; (4) reducing or eliminating impacts over time; and (5) compensating for an unavoidable impact by replacing or providing substitute resources or environments to offset the loss.
National Register of Historic Places	A Federally maintained register of districts, sites, buildings, structures, and properties that meet the criteria of significance defined in 36 CFR 63.
Neotropical migrant	Birds that breed in North America and winter in tropical and subtropical America.
No Action Alternative	The outcome expected from a continuation of current management practices.
North Side Pumping Division	Constructed by Reclamation in the 1950s. Irrigates 77,000 acres. The Project is operated by the A&B Irrigation District.
North Side Pumping Division Extension Plan	A plan proposed in the 1980s for the management and use of the scattered tracts of dry Federal lands located in and adjacent to Reclamation's existing North Side Pumping Division. This plan included providing irrigation service to 9,400 acres of irrigable drylands (part of each tract would be managed for wildlife habitat by the new landowner), and improving and managing 5,590 acres of Federal lands for wildlife (Idaho Department of Fish and Game would manage these lands). In addition, other future land uses were recognized in the plan. This plan is now considered no longer economically feasible, mainly due to lack of water availability. The extension plan project was never Congressionally authorized.
Off-Road Vehicle Use	Reclamation lands are closed to ORV use, unless specifically opened.
Perennial	Plants that have a life cycle that lasts for more than 2 years.
Precipitation	Rain, sleet, and snow.

Preferred Alternative	The primary alternative considered by Reclamation for implementation following analysis in the Environmental Assessment. This analysis, along with public input, could alter management actions described in the Preferred Alternative. If this occurs, any changes would be documented in the Final Environmental Assessment.
Project facilities	Canals, laterals, drains, pumps, buildings, and etc. owned by the United States. *Note:* Title to Project facilities and lands remains in the United States until specific legislation is enacted to authorize relinquishment and/or disposal (regardless of who is responsible for care, operation and maintenance of the facilities).
Project purposes	Lands are withdrawn and acquired for authorized purposes of the specific Reclamation Project. These can include irrigation, flood control, recreation, and fish and wildlife.
Public involvement	The systematic provision for affected publics to be informed about and participate in Reclamation decision making. It centers around effective, open exchange and communication among the partners, agencies, organizations, and all the various affected publics.
Public lands	Public lands include only those Federal lands administered by the Bureau of Land Management (with the exception of lands located on the Outer Continental Shelf and lands held for the benefit of Indians, Aleuts, and Eskimos).
Raptor	Any predatory bird, such as a falcon, eagle, hawk, or owl, that has feet with sharp talons or claws and a hooked beak.
Reclamation Project lands	Federal lands or interests in lands under the jurisdiction of the Bureau of Reclamation (Reclamation). Includes withdrawn lands, acquired lands, and 1890 Act reserved rights-of-way which have been exercised. *Note:* Reclamation Project Lands **are not** the same as public lands. Reclamation Project Lands were initially withdrawn, acquired or exercised for specific Project purposes, and are governed by different Federal land management laws and regulations than public lands. Public uses of Reclamation Project Lands can be suspended as necessary to protect Project Facilities, and Reclamation Project Lands are not open to off-road vehicles unless specifically opened for that use.

Reclamation zone	Area located immediately around the dam and administered by Reclamation.
Record Tree	This tree, formerly located at Bishops Hole, holds the record for being the biggest Eastern Cottonwood in the United States. It broke apart during Spring 2002 because it was weak on the inside from old age.
Relinquishment	Notification to BLM by a Federal agency (like Reclamation) that specific withdrawn lands are no longer needed for Project purposes.
Reptile	Cold-blooded vertebrate of the class Reptilia, comprised of turtles, snakes, lizards, and crocodiles.
Reserved works	Those Project facilities for which the care, operation, and maintenance has been retained by the United States.
Resident	A wildlife species commonly found in an area during a particular season: summer, winter, or year round.
Resource topics	The components of the natural and human environment that could be affected by the alternatives, such as water quality, wildlife, socioeconomic, and cultural resources.
Resource Management Plan	A 15-year plan developed by Reclamation to manage their lands and resources in the Study Area.
Restoration	An action by BLM that restores withdrawn land to the status of unreserved public lands subject to settlement, sale, location, or entry under some or all of the general land laws.
Revocation	The actual cancellation of a withdrawal by the Bureau of Land Management. Revocations do not necessarily open the land to settlement, sale, location, or entry under some or all of the general land laws.
Riparian	Of, on, or pertaining to the bank of a river, pond, or lake where soil moisture levels are higher than in surrounding uplands.
Runoff	That part of precipitation that contributes to streamflow, groundwater, lakes, or reservoir storage.
Sediment	Unconsolidated solid material that comes from weathering of rock and is carried by, suspended in, or deposited by water or wind.

Shrub	A woody perennial, smaller than a tree, usually with several stems.
Songbird	Small to medium-sized birds that perch and vocalize or "sing," primarily during the breeding season.
Spawning	Laying eggs directly in water, especially in reference to fish.
Species	In taxonomy, a subdivision of a genus that (1) has a high degree of similarity, (2) is capable of interbreeding only within the species, and (3) shows persistent differences from members of allied species.
Steppe	A plain without trees (apart from near rivers and lakes), the same as a prairie. It may be semi-desert or covered with grass or shrubs, or both depending on the season.
Study Area	The area evaluated in this Environmental Assessment as being directly affected by potential management actions described in the Resource Management Plan.
Threatened species	Any species that has the potential of becoming endangered in the near future and is listed as a threatened species under the Endangered Species Act.
Total Maximum Daily Load (TMDL)	A TMDL is a pollution reduction plan that accounts for all pollutant sources to the water and determines how much each source is allowed to contribute. The basic premise is that if existing pollutant inputs (loads) from all sources are reduced to a specified level (the maximum daily load), and a margin of safety is added, then water quality goals will be achieved.
Traditional Cultural Property (TCP)	A site or resource that is eligible for inclusion in the *National Register of Historic Places* because of its association with cultural practices or beliefs of a living community.
Transferred works	Those Project facilities for which the care, operation, and maintenance has been transferred from the United States to the irrigation districts.
Water quality limited	A water body that exceeds water quality standards or does not support its designated beneficial use, such as cold water habitat or primary contact recreation.
Wetland habitat	Wildlife habitat associated with water less than 6 feet deep, with or without emergent and aquatic vegetation in wetlands.

Wetlands	Lands transitional between aquatic and terrestrial systems where the water table is usually at or near the land surface or the land is covered by shallow water. Often called marshes or wet meadows.
Withdrawn lands	Withholding of an area of public land from settlement, sale, location, or entry under some or all of the general land laws for the following purposes: (1) to limit activity under those laws in order to maintain other public values in the area; (2) to reserve the area for a particular public purpose or program, or (3) to transfer jurisdiction of the area from one Federal agency to another.

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