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**Four Rivers Field Office
Blacks Creek Reservoir Management Plan
Environmental Assessment**

U.S. Department of the Interior
Bureau of Land Management
Boise District
Four Rivers Field Office
3948 Development Avenue
Boise, ID 83705



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Blacks Creek Reservoir Management Plan**

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1.0 Introduction

In 1995, Blacks Creek Reservoir (BCR) was recognized as an Important Birding Area by the National Audubon Society and the Idaho Department of Fish and Game (IDFG). It was also identified as a potential ‘Jewel in the Desert’ by the Ada County Open Space Task Force. The task force recommended the area be considered for development of an open space park/preserve (page E4) connected to similar sites by waterways, habitat corridors, and walking trails and managed as an outdoor oasis, providing wildlife habitat and recreation in a growing part of the county. In 2008, Golden Eagle Audubon Society and Land Trust of the Treasure Valley adopted BCR and began cleanup work and outreach with adjacent landowners and user groups to improve conditions. National, state, and local entities share the vision that the BCR area can provide high-quality wildlife habitat and an aesthetically pleasing recreation site. A water feature in a sagebrush steppe environment is unique and an attraction for a variety of wildlife, especially birds.

1.1 Need for and Purpose of Action

Because of its proximity to a metropolitan area (approximately 12 miles from downtown Boise), BCR receives a wide variety of recreational uses, some of which adversely affect wildlife habitat conditions. The area is currently designated as open to off-highway vehicle (OHV) use. Cross-country OHV use has resulted in extensive damage or loss of vegetation. Target shooting and dumping have resulted in substantial litter (e.g., 300 yards of waste, mostly associated with shooting, has been removed since 2008) and disturbance to wildlife and other recreational users.

The objectives of this project are to:

- Improve wildlife habitat in the BCR area.
- Provide diverse recreational and interpretive activities that are compatible with wildlife using the area.

1.2 Summary of Proposed Action

Designate 255 acres on three separate BLM-administered parcels (BLM parcels) on the North side of the Kuna-Mora Road as closed to motorized vehicle use. Construct 0.7 miles of fence to delineate the area. Two parking lots with trailheads and vault toilets would be constructed adjacent to the road. Interpretive signs, wildlife viewing blinds, and 3.1 miles of trails would be placed around the reservoir. Habitat restoration would occur on up to 230 acres.

1.3 Location and Setting

Blacks Creek Reservoir is located approximately 12 miles southeast of Boise, Idaho (Map 1). The area is characterized by flat to gently sloping topography with elevations ranging from approximately 3,170 - 3,240 feet. The reservoir, fed by two intermittent streams (Blacks Creek and Bryans Run), fluctuates between 25 acres and 260 acres. It was constructed to deliver irrigation water to farmers along Kuna-Mora Road. The Pleasant Valley Irrigation District was formed as the entity responsible for managing reservoir operations. There are currently fewer than 15 shareholders. Water delivery is sporadic, and downstream land uses have changed in such a way that effective delivery has become challenging. Water use takes place during the spring, but water generally remains in the reservoir throughout the year.

1.4 Conformance with Applicable Land Use Plan

The BLM-administered lands are currently designated as “open” to motorized use. A change in designation to “closed” would require a land use plan amendment. The proposed actions would be in conformance with the following objectives from the 1983 Kuna Management Framework Plan (USDI 1983):

Watershed

WS-1.1: Manage all watersheds to achieve stable or moderate soil surface factor conditions and, where feasible/economical, strive for maintaining or establishing good perennial vegetation cover.

Wildlife (Terrestrial)

WL-2: Manage sensitive species habitat in the Kuna Planning Unit (KPU) to maintain or increase existing and potential populations.

WL-4: Manage upland game and waterfowl habitats in the KPU to increase populations of these highly desirable species.

WL-4.5: Provide reasonable nesting and brood-rearing habitat for waterfowl along 94 miles of rivers, streams, and reservoirs within the KPU (specific measures are listed).

WL-5: Maintain and/or enhance unique or special habitats to retain and/or improve their character and value for wildlife, research, and human enjoyment. Protect habitats supporting nongame wildlife with high public and/or biological interest.

Wildlife (Aquatic)

WL(aq)-1.3: Work with IDFG and Idaho Department of Water Resources (IDWR) to establish a conservation pool in the Mountain Home, Indian Creek, and Blacks Creek reservoirs.

Recreation

R-1: Provide high-quality, varied recreation opportunities commensurate with public demand, placing emphasis on managing dispersed-type opportunities. Develop facilities as needed to control visitors, protect resources, and accommodate public use. Manage recreation sites to maximize benefits to the users and to ensure availability for future development.

1.5 Relationship to Statutes, Regulations, and Other Requirements

The following laws, acts, manuals, policies, and regulations provide the foundation for managing wildlife habitat, livestock, recreation, and cultural resources on BLM-administered lands.

Fish and Wildlife

Endangered Species Act (ESA) of 1973 as amended (16 USC 1531): Section 7 of the ESA outlines the procedure for federal interagency cooperation to conserve federally listed species and their designated habitats. Section 7(a) (2) of the ESA states that each federal agency shall, in consultation with Secretary, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of their habitats within the project area.

Special Status Species Management Manual for the Bureau of Land Management (BLM Manual 6840): National policy directs BLM State Directors to designate sensitive species in cooperation with the state fish and wildlife agency. This manual establishes policy for management of species listed or proposed for listing pursuant to the ESA and Bureau sensitive species which are found on BLM-administered lands to conserve sensitive species, including their habitats, and to mitigate adverse impacts. Where relevant to the activities associated with this project, effects to special status species are analyzed in this Environmental Assessment (EA).

Migratory Bird Treaty Act, Executive Order 13186, and BLM Memorandum of Understanding WO-230-2010-04 (between BLM and US Fish and Wildlife Service [USFWS]): Federal agencies are required to evaluate the effects of proposed actions on migratory birds (including eagles) pursuant to the *National Environmental Policy Act of 1969* (NEPA) “or other established environmental review process;” restore and enhance the habitat of migratory birds, as practicable; identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and, with respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. Effects to migratory birds are analyzed in this EA.

Livestock Management

The Taylor Grazing Act (TGA) of 1934 as amended: Provides for the orderly use of public land. The goals of the TGA were to stop injury to the public grazing lands by preventing overgrazing and soil deterioration; to provide for their orderly use, improvement, and development; to stabilize the livestock industry dependent upon the public range; and for other purposes.

The Federal Land Policy and Management Act (FLPMA) of 1976: Authorized the following: Inventory and identification of BLM-administered lands, land use planning, public involvement and participation. FLPMA also provides BLM with broad management authority under principles of multiple use and sustained yield. Land use planning resulted in the preparation of the Cascade RMP.

The Public Rangelands Improvement Act (PRIA) of 1978: Mandates that livestock grazing be managed to improve range condition and maintain the highest level of productivity.

Title 43 CFR, Subpart 4100 – Grazing Administration, Exclusive of Alaska: The regulations embody the Acts, as amended, listed above. Specifically, 43 CFR 4180.2 is the regulatory requirement that implements Idaho’s Standards for Rangeland Health and Guidelines for Livestock Grazing Management, 1997 (USDI 1997)

Off-highway Vehicle (OHV) Management

Executive Order 11644 (1972): The executive order (E.O.) directs federal agencies “to establish policies and procedures that will ensure the use of off-road vehicles on public lands will be controlled and directed to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize the conflict among various users of those lands and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.” The E.O. also requires Federal agencies to designate specific areas where the

use of off-road vehicles may or may not be permitted, and “to monitor the effects of off-road vehicles on public lands and amend or rescind management decisions in order to further the policy of this order.”

Executive Order 11989 (1977): The order directs federal land managers to immediately close areas or trails to off-road vehicles whenever the land manager determines that “the use of the offroad vehicle will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitats or cultural or historic resources of particular areas or trails until such adverse effects have been eliminated and that measures have been implemented to prevent further recurrence.”

Code of Federal Regulations (CFR): Designation of areas and trails as open, closed, or limited to motorized use is required and authorized under 43 CFR 8342 Designation of Areas and Trails. These designations would be effective upon issuance of the Record of Decision. Designation of areas as open, closed, or limited for non-motorized and other uses (mechanical, mountain bike, equestrian, and foot), or conditions of use, is authorized under 43 CFR 8364.1 Closure and Restriction Orders, and 43 CFR 8365.1-6 Supplementary Rules. Designations under 43 CFR 8364.1 and 43 CFR 8365.1-6 require publication in the Federal Register and local media and are not effective until such publication.

Cultural Resources

BLM is required to consult with Native American tribes to “help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a proposed action, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration” (U.S. Department of the Interior, *BLM Manual Handbook H-8120-1*). Tribal coordination and consultation responsibilities are implemented under laws and executive orders that are specific to cultural resources which are referred to as “cultural resource authorities,” and under regulations that are not specific which are termed “general authorities.” Cultural resource authorities include: the *National Historic Preservation Act of 1966*, as amended (NHPA); the *Archaeological Resources Protection Act of 1979*; and the *Native American Graves Protection and Repatriation Act of 1990, as amended*. General authorities include: the *American Indian Religious Freedom Act of 1979*; the NEPA; the FLPMA; and *Executive Order 13007-Indian Sacred Sites*. The proposed action is in compliance with the aforementioned authorities.

Southwest Idaho is the homeland of two culturally and linguistically related tribes: the Northern Shoshone and the Northern Paiute. In the latter half of the 19th century, a reservation was established at Duck Valley on the Nevada/Idaho border west of the Bruneau River. The Shoshone-Paiute Tribes residing on the Duck Valley Reservation today actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, the Boise Valley Treaty of 1864 and the Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified.

Other tribes that have ties to southwest Idaho include the Bannock Tribe and the Nez Perce Tribe. Southeast Idaho is the homeland of the Northern Shoshone Tribe and the Bannock Tribe.

In 1867 a reservation was established at Fort Hall in southeastern Idaho. The Fort Bridger Treaty of 1868 applies to BLM's relationship with the Shoshone-Bannock Tribes. The northern part of the BLM's Boise District was also inhabited by the Nez Perce Tribe. The Nez Perce signed treaties in 1855, 1863 and 1868. BLM considers off-reservation treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use on the BLM-administered lands it administers for all tribes that may be affected by a proposed action.

1.6 Scoping and Development of Issues

On May 23, 2012, an EA Scoping Package or notification letter was sent to affected parties, interested publics, and agencies to inform the public of the proposal and solicit comments regarding the NEPA review of alternatives. A public meeting was held on June 5, 2012. The meeting was attended by 21 people, 11 of whom provided written comments. Fifteen letters and emails were received in response to the scoping package. Comments received, in conjunction with BLM staff input, were used to identify potential environmental issues related to the proposed action, and to identify alternatives that meet the purpose and need.

Resource issues and concerns identified through the scoping process included:

Vegetation – OHV use can bring in noxious weeds, and habitat alteration caused by OHVs have made the area susceptible to noxious and invasive species. Vegetation treatments and changes in recreational uses could affect native species.

Special Status Plant Species – Current uses and proposed activities could affect special status plant species and their habitat.

Wildlife – Fencing, vegetation treatments, and changes in recreational uses could affect wildlife use of the area.

Reservoir Management – Use of herbicides could affect water quality. Modifications in recreational use and access could affect reservoir management.

Recreational Uses – Current OHV use, especially mud-bogging, has disrupted wildlife and degraded habitat over much of the area. Unsafe and illegal target shooting (shooting at protected species) has adversely affected other recreation uses and wildlife, and resulted in substantial accumulation of litter. Changes in recreational designations could affect public access and use of 255 acres. Modifying uses on 255 acres could push those uses to adjacent public, State, and private lands. OHV users could come from private lands north of BCR which could require additional fencing.

Private Property – Management actions on public lands could affect access to or use of adjacent private lands.

Livestock Management – Proposed management actions could affect access to water source or use of up to 255 acres.

Cultural Resources – Proposed actions could affect historic properties in the BCR area. A records check of the area indicated no historic properties have been recorded in the area of potential effect. A Class III cultural resource survey was conducted throughout the project area in 2012, and no historic properties were located. The Shoshone-Piute tribes did not identify any issues when the project was discussed at a June 21, 2012 consultation. Therefore, potential effects of the proposed actions on cultural resources will not be discussed further in this document.

The following issues were identified that are beyond the scope of this document:

Increasing Amount of Public Lands around BCR – Acquisition of lands adjacent to BCR would ensure long-term public access and suitable habitat conditions for wildlife. Currently, funds for acquisition are not available and the adjacent land owners have been supportive of maintaining access and habitat. The Draft Four Rivers Resource Management Plan will identify opportunities and criteria for acquiring land.

Mitigation for Uses that Move to Adjacent Lands – Some commenters were concerned that uses restricted or eliminated from the 255 acres would move to adjacent lands; therefore, the BLM should not change management in the area (Alternative A) or should develop a mitigation plan for adjacent lands. The BLM is not responsible for management or protection of non-public lands. The Draft Four Rivers Resource Management Plan will address OHV designations throughout the 800,000 acre planning area. OHV use is limited to designated routes in the 450,000 acre Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) 4.5 miles south of BCR.

Modify Reservoir to Enhance Wildlife Habitat - The BLM should deepen the reservoir to improve the fishery and create an island for nesting birds. The minimum pool (approximately 25 acres) has been sufficient to support a year-round fishery (except when the outlet valve was damaged by vandals causing the reservoir to completely drain). The BLM currently does not have funding to dredge the reservoir or create an island. Such proposals could be considered in the future, depending on the needs of the irrigation district.

2.0 Description of the Alternatives

This chapter describes and compares the alternatives considered for the management of the Blacks Creek Reservoir area. This section presents the alternatives in comparative form, in order to define the differences between each alternative and provide a clear basis for choice among options by the decision maker and the public. Design criteria and monitoring measures incorporated into the alternatives are also described.

2.1 Alternative Development Process

The BLM has cooperated with the Golden Eagle Audubon Society, Land Trust of the Treasure Valley, adjacent landowners, Pleasant Valley Irrigation District, stakeholders, user groups, and representatives of local and state government to develop the alternatives.

2.2 Alternatives Considered But Not Analyzed in Detail

Partial or Complete Designation for OHV Use - Alternative C (designating the 38 acres on the east side as limited to designated routes and fencing accordingly) was presented in the scoping document, but will not be analyzed in the EA. The alternative was not substantially different from Alternative B and would provide only negligible additional OHV opportunities that would be difficult to manage and would not meet management objectives (Section 1.1). Similarly, designating routes throughout the area will not be considered. The public lands are interspersed with private lands whose owners do not support OHV use on their lands. The BLM parcels are too small to provide manageable OHV uses that would meet the objectives, and a substantial amount of fencing would be required to contain OHV use on public lands. Public lands in the surrounding area are available for OHV use.

Improved Access and Parking near Reservoir/Dam – A parking lot was proposed close to the dam on the western parcel of public land to provide better access. This alternative was not considered because of safety and slickspot peppergrass habitat concerns. Access to this area would occur on or near a blind curve on the Kuna-Mora Road which has considerable traffic. Other proposed parking areas (Alternative B) would occur in disturbed areas that do not provide habitat (e.g., sagebrush, native forbs and grasses). Some slickspot peppergrass habitat would have to be removed to create a parking area near the dam. Alternative B would provide wheelchair accessible trails to the dam. Additional access to this area could be revisited in the future if a demand is identified.

2.3 Description of Alternatives

The following alternatives have been identified based on the scoping process:

Alternative A – Continue Current Use

Alternative B – No Motorized Access

2.3.1 Alternative A – Continue Current Use

The area would remain open to OHV use. Shooting activities would not be limited. Livestock use occurs in the Sunnyside Spring/Fall Allotment (00825) and would occur from April 1 to June 30 and October 16 to December 15 (Table 1). Nicholson and TFI graze together in the BCR area and Anchustegui grazes outside this area. Because of slickspot peppergrass concerns in other areas of the allotment, the majority of use in the BCR area occurs during the spring.

Table 1. Mandatory terms and conditions (number, kind, use period, and animal unit months [AUMs]) for three permittees in the Sunnyside Spring/Fall Allotment (00825), Ada County, Idaho.

Permittee Name and Number	Number & Kind of Livestock	Use Period	% Public Land	Active AUMs (none suspended)	Total AUMs
TFI (1101678)	1,989 (C)	04/01 - 06/30	100	3,989	6,129
	1,151 (C)	10/16 - 12/15	100	2,140	
Nicholson, T.T. (1102835)	1,173 (C)	04/01 - 06/30	97	3,404	4,856
	1,316 (C)	11/01 - 12/15	97	1,452	
Anchustegui (1101636)	1,520 (S)	04/01 - 05/31	100	610	1,199
	513 (S)	11/01 - 02/28	100	405	
	82 (C)	11/01 - 02/28	100	184	

2.3.2 **Alternative B – Enhance Wildlife Habitat and Non-motorized Recreation**

The BLM proposes to work cooperatively with non-governmental organizations (e.g., Golden Eagle Audubon Society, Land Trust of the Treasure Valley), adjacent private landowners, and other stakeholders to manage the Blacks Creek Reservoir area to provide wildlife habitat and educational and passive recreational opportunities. Activities would include:

OHV Area Designation

Designate 255 acres north of the Kuna-Mora Road and adjacent to BCR as closed to OHV use (Map 1). Motorized access would be allowed with written permission from the BLM-authorized officer. Construct 0.7 miles of fencing along the Kuna-Mora Road to delineate the area. Fences would be built to Boise District Fence Standards (Type B - three wires, including a smooth bottom wire, and wire spacing and height suitable for deer and antelope passage). Avian collision avoidance markers would be placed on fences. Access points would be provided for livestock and non-motorized users.

Route Designation

Approximately 3.1 miles of non-motorized trails (up to 15' wide or up to 5.7 acres) on public lands would be designated based on existing roads and trails (Table 2, Map 1). Up to 2 miles of additional foot trails (4' wide, 1 acre) could be created. Trails would be designed to minimize impacts to wildlife, special status plants, and their habitat. Where necessary, trail beds would be compacted and surfaced with decomposed granite (or similar material) and a porous hardener. Trails could be closed during critical periods for wildlife (e.g., nesting, brood-rearing, or winter). Motorized vehicles would be used to periodically maintain trails. Motorized access would be allowed by Federal, State, and local officers and employees in the performance of their official duties; members of organized rescue or fire-fighting forces in the performance of their official duties; and persons with written authorization from the BLM.

Table 2. Miles of existing roads and trails (and associated acres) that would be designated or restored in Alternative B, Blacks Creek Reservoir, Ada County, Idaho.

Designation	Ownership	Upland Miles	Upland Acres	Riparian Miles	Riparian Acres
Designated	Public	1.8	3.3	1.3	2.4
	Private	1.1	2.0	1.6	2.9
Restored	Public	2.4	9.2	2.1	4.6
	Private	5.2	15.3	5.1	13.0

Visitor Facilities

Two parking lots (approximately 0.5 acres each) would be constructed in previously disturbed areas to each accommodate at least 5-10 vehicles and a bus (Map 1). The lots would be graded, gently sloped, and surfaced with gravel. The lots would be delineated with fencing, gates, and boulders to provide access points to trails. Vault toilets would be placed adjacent to the parking lots. Kiosks and interpretive signs would be placed at trailheads and strategic points along trails. Two to four wildlife viewing blinds (approximately 10' by 20') would be constructed adjacent to trails.

Vegetation and Restoration Treatments

Vegetation and restoration treatments would occur on up to 126 acres of uplands (e.g., outside the high water mark). Herbicide applications would consider the target weed species, vegetative cover and susceptibility of herbicide movement either by water or wind. The least amount of herbicide would be used to achieve control of target weed species. Herbicides with particular modes of action including pre and post emergent herbicides (e.g., Imazapic, glyphosate, and/or 2-4-D) would be used to reduce exotic forb and annual grass cover. Imazapic would be used primarily in the fall as a pre-emergent control for annual grasses. Depending on the success of pre-emergent herbicide applications, Glyphosate would be applied in early spring to augment annual grass control and 2-4-D would be applied in early summer to control exotic forbs. Ground-based application methods (e.g., hand or all-terrain vehicle [ATV]-mounted sprayers) would be used. Herbicides would not be applied within 10 feet of identified slickspots and erosion barriers would be placed around treated areas to minimize runoff from uplands into the reservoir. Non-chemical control methods would be used where appropriate.

Up to 4.5 miles (approximately 5.4 acres) of unmaintained roads and two-tracks on BLM-administered lands and 10.3 miles (approximately 13 acres) on private lands would be prepared for seeding/planting treatments by using one or a combination of equipment types to include a SWECO Trail Dozer which “rakes” the soil to a depth of 6-8” or an ATV equipped with rake, roller attachments and broadcast seeders.

Target restoration species would include native grasses, forbs, and shrubs that would be seeded (e.g., drill on disturbed areas or hand broadcast in vegetated areas) and planted where necessary to supplement natural recovery. Temporary fencing could be placed around treated areas until vegetation objectives are met.

Livestock Grazing

Livestock would be excluded from vegetation treatments until objectives are met; however, no reduction in permitted use would occur.

3.0 Affected Environment and Environmental Consequences

Impact Descriptors

Effects can be temporary (short-term) or long lasting/permanent (long-term). These terms may vary somewhat depending on the resource; therefore, each will be quantified by resource where applicable. Generally speaking:

- **Short-term** effects are changes to the environment during and following ground-disturbing activities that revert to pre-disturbance conditions, or nearly so, immediately to within a few years following the disturbance.
- **Long-term** effects are those that would remain beyond short-term ground disturbing activities.

The magnitude of potential effects is described as being major, moderate, minor, negligible, or no effect and is interpreted as follows:

- **Major** effects have the potential to cause substantial change or stress to an environmental resource or resource use. Effects generally would be long-term and/or extend over a wide area.

- **Moderate** effects are apparent and/or would be detectable by casual observers, ranging from insubstantial to substantial. Potential changes to or effects on the resource or resource use would generally be localized and short-term.
- **Minor** effects could be slight but detectable and/or would result in small but measurable changes to an environmental resource or resource use.
- **Negligible** effects have the potential to cause an indiscernible and insignificant change or stress to an environmental resource or use.
- **No effect** = no discernible effect.

Scope of Cumulative Impacts Analysis

In general, impacts to all resources considered were analyzed for cumulative impacts under a temporal scope of five years (maximum extent of direct impacts described for vegetation treatments). A geographic scope was established for each resource. Geographic scopes vary from 1.5 mile buffers around the BLM parcels for watershed, vegetation, and wildlife to 5 mile buffers for recreation and visual resources.

Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

The following past, present, and foreseeable actions affect conditions in the cumulative impacts analysis areas.

Development - Agricultural and residential development has occurred and will likely continue to occur on private lands. Agricultural development has resulted in habitat conversion, increased noxious and invasive weed invasions. Agriculture often requires the use of pesticides and herbicides which may affect insect pollinators. Cultivated areas and agricultural equipment often serve as vectors for the introduction of noxious and invasive species. The level of agricultural development is expected to remain static over the long term. Minimal residential development has occurred in the area; however, large-scale planned unit developments have been approved adjacent to BCR. Residential development would result in increased off-highway vehicle (OHV) use, increased threat of wildland fire, changes to insect pollinator populations, and increased habitat fragmentation.

Fragmentation - Habitat degradation, alteration, and loss have fragmented habitat. Lack of connectivity between natural open spaces reduces or eliminates genetic flow between plant and wildlife populations. Wildland fires have been the primary cause of fragmentation. Residential development would cause a major increase in fragmentation.

Livestock Grazing – The analysis area is part of the 76,000 acre Sunnyside Spring/Fall Common pasture and the 270,000 acre Sunnyside Spring/Fall Allotment. Grazing use within the pasture is as described in Alternative A. Use during the spring, especially during the active growing period, would adversely affect native perennial grasses and forbs.

Recreation – The analysis area occurs on the northern edge of the NCA and near a major metropolitan area and supports a variety of motorized and non-motorized recreational uses including OHV riding, wildlife viewing, dog walking, and hunting. Recreation uses can alter or eliminate vegetation cover, generally in repeatedly used areas (e.g., roads and trails), and serve as seed transports (vectors) for noxious and invasive plants. Public lands in the area are

designated as open to OHV use. Recreational demands, especially on public lands, will increase as development and population increase in the area.

Wildland fire – Although not planned, wildland fire is a likely event in the analysis areas. Because of increased human presence and disturbance, wildland fire frequency will increase over the 10-year period. Most fires would be expected to be small because of the proximity to fire suppression resources; however, a large fire would also likely occur. Habitat would remain in a degraded state, dominated by exotic annuals.

3.1 Watershed/Vegetation/Special Status Plants

3.1.1 Affected Environment – Watershed/Vegetation/Special Status Plants

Watershed

The uplands range in elevation from 3,170 to 3,240 feet. Annual precipitation ranges from 12 to 14 inches. The topography is characterized by gently sloping (0-4%) plateaus bisected by ephemeral drainages and intermittent streams (Blacks, Bryans Run, and Tenmile creeks). Soil types are primarily moderately deep, silty clay loams. Vegetative cover (primarily exotic annual grass cover, some perennial bunchgrass, and shrub cover), biological soil crust cover, and litter on the 126 acres of uplands are adequate to stabilize soils and cycle water and nutrients. As the water level recedes, the seasonally inundated area (up to 130 acres) is characterized by bare ground and shallow-rooted exotic annual species. There are approximately 4.2 miles (12.5 acres) of roads and two-tracks on public lands outside the high water mark that have reduced or no vegetative cover (Table 2).

Soil Erodibility - The area outside the high-water mark is characterized by high soil erodibility (K-factor, Table 3). Soil erodibility represents both susceptibility of soil to erosion and the rate of runoff. Gentle slopes and vegetative cover limit erosion.

Table 3. Soil erodibility (K-factor) for BLM parcels adjacent to Blacks Creek Reservoir and associated cumulative impacts analysis area (other public, state, and private lands within a 1.5 mile buffer from BLM parcels), Ada County, Idaho.

K-factor	BLM Parcels (acres)	Public Lands	State	Private	Total
Medium (0.16-0.4)	6	6	288	1,066	1,360
High (> 0.4)	126	2,786	338	3,689	6,813
No Data	123	177	3	133	213

Vegetation

Upland - Based on 2002 Pacific Northwest National Laboratory (PNNL) data, six general upland vegetative cover types are present (Table 4). Exotic Annuals (48 acres) and Big Sagebrush/Big Sagebrush Mix (46 acres) are the most common cover types. Cheatgrass is a common understory component in shrub communities, but these areas also support a diversity of grasses and forbs (Table 4). Upland vegetation has been shaped by physical site characteristics such as soils, precipitation, and disturbances (primarily wildland fire and seasonal flooding). Fires in 1981 and 1994 burned up to 47 acres west of the dam (Table 5). Shrubs have reestablished on most of the burned area south of Tenmile Creek, but exotic annual plant communities dominate

historic burns north of the creek. Approximately 12.5 acres of upland vegetation is altered or absent because of OHV activity.

Table 4. Total acres and proportion of vegetative cover types for public lands adjacent to Blacks Creek Reservoir and associated cumulative impacts analysis area (other public, state, and private lands within a 1.5 mile buffer from BLM parcels), Ada County, Idaho.

PNNL Cover Type	Characteristic Vegetation¹	BLM Parcels (acres)	Public Lands	State	Private	Total
Big Sagebrush/Big Sagebrush Mix Bitterbrush	Wyoming big sagebrush, Antelope bitterbrush, Bunchgrass, Exotic Annuals (occ)	11 (4%)	483 (16%)	108 (17%)	823 (17%)	1,414 (17%)
Bunchgrass	Sandberg bluegrass, Bottlebrush squirreltail, Basin wildrye, Exotic Annuals (occ)	45 (18%)	68 (2%)	67 (11%)	228 (5%)	363 (4%)
Other ²	Green rabbitbrush, Salt Desert Shrub, Greasewood, Exotic Annual (occ) Bunchgrass (occ)	7 (3%)	45 (2%)	15 (2%)	110 (2%)	170 (2%)
Exotic Annuals	Cheatgrass, Clasping pepperweed, Russian thistle, Bur buttercup, Bunchgrass (occ)	63 (25%)	2,257 (76%)	441 (70%)	3,409 (70%)	6,107 (72%)
Seasonally Inundated	Cheatgrass, Medusahead, Annual Forbs, Pacific willow, Coyote willow, Knotweed	130 (51%)	130 (4%)	0	129 (3%)	259 (3%)
Agriculture	Irrigated Crops	0	0	0	172 (4%)	172 (2%)
TOTAL		256	2,983	631	4,871	8,485

¹Occ = occasionally present. Perennial and annual forbs (e.g., yarrow, sunflower, and mullein) are also occasionally present in most cover types.

²Other² was created to combine PNNL Cover Types (Rabbitbrush, Salt Desert Shrub, and Greasewood) which compose less than 1% each of upland vegetation.

Table 5. Total acres burned by decade since 1980 for public lands adjacent to Blacks Creek Reservoir and associated cumulative impacts analysis area (other public, state, and private lands within a 1.5 mile buffer from BLM parcels), Ada County, Idaho.

Decade	BLM Parcels (acres)	Public Lands	State	Private	Total
1980-89	37	1,017	627	2,964	4,608
1990-99	26	219	266	230	715
2000-10	0	1,053	0	1,666	2,719
2012	50	50	10	46	106

Riparian - Exotic annuals, primarily medusahead and cheatgrass, are the most abundant species in Seasonally Inundated (up to 130 acres) areas. Willows (e.g., Pacific, coyote), knotweed, and rabbitsfoot grass occur at the upper end of the reservoir. Up to 7 acres of vegetation is altered or absent because of OHV activity (Table 2).

Noxious Weeds - The Boise District BLM has an active weed control program that annually updates the locations of noxious weeds (any plant having the potential to cause injury to public health, crops, livestock, land or other property [Idaho Statute 22-2402]) and treats known weed infestations utilizing chemical, mechanical, and biological control techniques. Infestations of noxious weeds are treated contingent upon the BLM annual weed budget, employee availability, and noxious weed priority. There are no noxious weed occurrences recorded in the Boise District weed database for the area; however, during 2012 site visits, small amounts of whitetop were observed. Whitetop is a perennial capable of invading and dominating disturbed areas (e.g., roadsides) and is common along much of the Tenmile Creek drainage.

Special Status Plants

Slickspot peppergrass (*Lepidium papilliferum*) is the only special status plant known to occur in the area. The closest element occurrence (EO) and occupied habitat (a 0.5-mile buffer around currently known EOs) is 2.9 miles south of the BLM parcels. Nine acres of slickspot peppergrass habitat (habitat that has been surveyed for the presence of the species at least once and is known to contain slickspots) and 83 acres of potential habitat (a model based on soil types that predicts the presence of slickspots) occur in the area above the high-water level (Table 6).

Table 6. Acres of slickspot peppergrass habitats for public lands adjacent to Blacks Creek Reservoir and associated cumulative impacts analysis area (other public, state, and private lands within a 1.5 mile buffer from BLM parcels), Ada County, Idaho.

Habitat Type	BLM Parcels (acres)	Public Lands	State	Private	Total
Slickspot Peppergrass Habitat	9	2,271	0	0	2,271
Potential Slickspot Peppergrass Habitat	83	84	375	3,173	3,632

Slickspot peppergrass is endemic to the Snake River Plain and extends from Parma, Idaho to Glens Ferry, Idaho in the north and to near Twin Falls, Idaho in the south. In 2006, BLM and the USFWS entered into a candidate conservation agreement that provided for implementation of a number of conservation measures including ones designed to help offset adverse impacts to the species from BLM-authorized activities.

3.1.2 Environmental Consequences – Watershed/Vegetation/Special Status Plants

A general discussion of how vegetation responds to different proposed actions precedes the discussion of consequences specific to each alternative.

The following assumptions apply for analysis purposes:

- Only environmental consequences to upland vegetation on BLM-administered lands are considered in this analysis; therefore, all acres and percentages reported refer solely to BLM-administered lands and only to upland vegetation.
- Short-term effects to upland vegetation would be ≤ 3 years; long-term effects would be > 3 years.

Phenology of herbaceous perennial vegetation assumptions:

Factors such as precipitation and temperature influence how early or late herbaceous perennials initiate and terminate growth, but these broad dates capture that spectrum and will be applied for analysis purposes.

- Growing season is generally March 1 to July 15
- Dormant season is generally July 16 to February 28

3.1.2.1 General Discussion of Impacts

Watershed

Impacts to watershed components include changes in ground cover (e.g., biological soil crusts, litter, and vegetation) and impacts to soil profiles.

Changes in Vegetation Cover – Areas where treatments result in disturbed or bare soil would be susceptible to erosion until vegetative cover becomes reestablished. Areas colonized by exotic annual species would remain susceptible to erosion over the short and long term, especially during low precipitation years when plant productivity is reduced. Activities that establish or increase perennial grass, forb, and shrub cover would provide structural and functional components that would help reduce the potential for erosion events over the long-term.

Soil crusts are most susceptible to disturbance in the summer and early fall (July 1- October 31) when soil moisture is minimal and crusts are unable to repair any damage because they are dormant. They are least susceptible in the late fall and winter (November 1- January 31) when soils are moist. Biological soil crusts would be the most difficult to re-establish and be most affected by treatments that included deep ($> 4''$) soil disturbance. Loss of soil crusts reduces the water holding capacity and the amount of nitrogen fixation that can occur. Areas with low biological soil crust cover would remain susceptible to invasive species over the long term.

Changes in Soil Profile – Impacts to soils associated with different activities vary by several factors including slope, soil type, timing, and plant community composition and distribution. Moderate to steep slopes ($> 20\%$), combined with highly erodible soils and sparse or shallow-rooted vegetation, would be most prone to accelerated erosion, whereas gentle slopes ($\leq 20\%$) would be less prone to erosion. Soils, especially clay-dominated soils, would be most susceptible to soil compaction when soils are wet or saturated. The reduction or loss of soil interspaces results in a long-term loss of functionality and productivity. Soils would be least

susceptible to compaction when the upper eight inches is dry or slightly moist. Soils that have been devoid of vegetation or dominated by shallow-rooted species for several years would take longer to recover from disturbance activities than soils with deep-rooted perennial species.

Vegetation

Effects to vegetation are grouped by source (disturbance, herbicide, planting, and vectors). These sources are addressed where appropriate for broad vegetative types potentially affected which include: perennial herbaceous, annual, and woody vegetation. Perennial herbaceous vegetation includes native and introduced perennial grasses and forbs. Annual vegetation includes native and introduced grasses and forbs. Woody vegetation includes shrubs.

In 2009, wildland fire and invasion by exotic annuals were identified as the two primary reasons for loss of slickspot peppergrass habitat (74 FR 52014-52064). Habitat fragmentation, damage to biological soil crusts, and development (e.g., habitat conversion, OHV trails) were also identified as threats.

Disturbance – Disturbing /trampling perennial herbaceous plants could reduce productivity, but would be unlikely to result in mortality of established plants. Disturbance could uproot seedlings and young plants, resulting in mortality to those plants. This group is generally more resilient to disturbance than shrubs or annuals due to more flexible tissues and extensive root systems. Disturbance would generally produce less impact during dormancy than during growth because perennial plants are less susceptible to above-ground injury when dormant. Soil compaction from disturbance also affects vegetation by reducing water and oxygen infiltration and restricting root growth.

Disturbing annual plants during their growing season could result in injury or mortality, and/or seedbank reductions. Impacts would be short-term due to abbreviated life cycles and generally high fecundity, particularly for exotic species (e.g., cheatgrass).

Disturbance /trampling could deform or kill shrubs. Brittle shrubs, such as sagebrush, are more sensitive to trampling than more flexible shrubs, such as rabbitbrush. Shrub seedlings are more sensitive to trampling and dislodgement than older plants.

Disturbance of water-saturated slickspot soils that breaks through the restrictive layer has the potential to alter the soil structure and functionality of slickspots. Disturbance when slickspots are dry can lead to mechanical damage to the slickspot crust, potentially resulting in invasion of non-native plants into the slickspots.

Herbicides – Herbicides could affect target and non-target plants and animals. Organisms can be exposed to herbicides through direct spray, off-site drift, surface runoff, and wind erosion. The persistence (soil half-life) affects how long organisms could be exposed to herbicides and their potential to affect non-target species over an extended period. Glyphosate and 2-4-D have low persistence, whereas Imazapic is moderately persistent (USDI 2007, Table 7). Potential off-site drift would be minimal from ground applications during calm conditions and greatest from aerial applications with wind speeds > 10 mph. Post-application movement would depend on persistence, soil type, and erosion factors (e.g., wind or rain). Non-persistent herbicides applied

on stable soils (e.g., high loam or clay components) with perennial vegetative cover would represent a low risk for off-site movement; whereas, persistent herbicides applied to soils with high erosion potential (e.g., sandy soils) and no perennial vegetative cover would represent a moderate to high risk for off-site movement. The proposed herbicides have very low to low potential for off-site movement (USDI 2007, Table 7).

Table 7. Herbicide characteristics including persistence, toxicity, and movement potential for three herbicides proposed for use at Blacks Creek Reservoir, Ada County, Idaho.

Herbicide	Herbicide Characteristics and Target Vegetation	Soil Half-life (days)	Movement Potential	Non—target Plant Toxicity	Animal Toxicity
2-4-D	Selective; foliar absorbed; post-emergent; annual/perennial broadleaf weeds. Key species treated include mustard species and Russian thistle.	10	Low	Moderate	Not Acutely Toxic to Slightly Toxic
Glyphosate	Non-selective; annual and perennial grasses and broadleaf weeds, sedges, shrubs, and trees. Key species treated include broadleaf weeds.	47	Very Low	Moderate	Slightly Toxic
Imazapic	Selective pre- or post-emergent herbicide; inhibits broadleaf weeds and some grasses. Key species treated include cheatgrass, medusahead, and mustards.	120-140	Low	High	Slightly Toxic

Depending on when they are applied, herbicides could affect both target and non-target species. Low persistence herbicides applied during the active growth period of target species would have minor impacts on non-target species during the current growing season. Imazapic, when used as a pre-emergent, could affect germination of non-target species, primarily annuals, for up to two years. Treated areas would have less vegetative cover and could be susceptible to the establishment of noxious weed species. If favorable growing conditions occur (e.g., adequate moisture and temperatures), vigor and density of non-target species could increase where competition is reduced or removed. The proposed herbicides are considered not acutely toxic to slightly toxic for insects, birds, mammals, and fish (USDI 2007, Table 7); therefore, toxicity to animals will not be considered further.

Planting – Mechanical methods (e.g., drill seeding) that disturb the soil surface could damage or kill existing vegetation. Shrubs and perennial grasses and forbs would be most susceptible. Annual species would be affected only when seeding occurs during the active growing season. Broadcast seeding and planting would have no or negligible impacts to existing vegetation. Establishment of seeded species would make sites more resistant to invasive exotic and noxious weeds over the long term.

Vectors – Weed seeds can be transported by a variety of methods including OHVs, machinery, humans, and animals. Damage to native plants and soils can reduce productivity and competitiveness, creating niches for invasive weeds to occupy.

Development and Fragmentation – Activities that remove or substantially alter vegetation (e.g., OHV trails, wildland fire, and building) would result in fragmented habitats. Where the activities establish or expand invasive or noxious weed species that outcompete native species, the degraded areas would provide less suitable habitat for pollinators. Large scale development could reduce or eliminate connectivity between intact habitats which could affect the long-term viability of some plants in isolated areas.

3.1.2.2 Alternative A

Watershed

Exotic Annual communities (48 acres) would be susceptible to minor to moderate erosion over the long term. In the absence of fire, shrub and bunchgrass communities would have adequate vegetative cover to stabilize soils. Where present, the amount of biological soil crust cover would remain static. Biological soil crust presence and recovery would not occur in areas where annuals dominate or that experience concentrated uses, especially OHV activity. OHV activity, especially mud bogging, would alter the soil profile and keep areas devoid of perennial species and susceptible to erosion. Currently disturbed areas (19.5 acres associated with OHV use) would likely expand over the long term as human populations and associated OHV use increase.

Vegetation

Exotic annuals would be the dominant understory species over most of the area. During above average precipitation years, high fuel levels would make these areas susceptible to wildland fires. Over the long term, shrub-dominated cover types would likely burn and be replaced by the Exotic Annual cover type. In the absence of seed sources of more desirable species, the seasonally inundated area would be dominated by exotic annuals. Widespread OHV use would damage or kill shrubs (e.g., sagebrush, willows) and perennial grasses and forbs and would likely expand beyond the 19.5 acres currently affected. Increasing OHV activity, other vectors (e.g., humans and animals), and poor condition range would increase the potential for noxious weeds to be introduced and spread (Sheley and Petroff 1999).

Special Status Plants

Slickspot peppergrass habitat would remain in poor condition (e.g., limited forbs, dominance of invasive annuals, lack of biological soil crusts) or be eliminated (by wildland fire and OHV activity) over the long term. Expansion of OHV activity could alter or destroy slickspots in upland areas. Impacts from OHV use would occur at a small scale (e.g., linear trails that would result in negligible to minor increases in fragmentation and occasional slickspot destruction), whereas wildland fires could affect up to 126 acres.

3.1.2.3 Alternative B

Watershed

Restoration of upland areas would have a moderate to major stabilizing effect on 125 acres over the long term. Treated Exotic Annual communities would be susceptible to minor erosion until perennial species become established; however, negligible erosion would occur in other upland communities because existing perennial vegetation would stabilize the soil surface and the majority (> 90%) of the area is < 20% slope. Minor increases in biological soil crust cover would occur over the long term where annual grasses are reduced or eliminated. Reductions in disturbances (e.g., removal of OHV use on 13.8 acres) and increases in deep-rooted perennial

species would result in moderate improvements in the soil profile and increased stability in shrub interspaces.

Development of parking areas (1 acre), vault toilets, viewing blinds, and trails (1 acre new disturbance, 5.7 acres currently disturbed) would have negligible short or long term effects on watersheds. Loss of vegetation cover would occur on newly disturbed areas (1.05 acres of trails and vault toilets), but these areas would be hardened and not susceptible to erosion. Improved trail surfaces would reduce erosion from disturbed areas over the long term. Erosion caused by runoff from hardened surfaces would be negligible because the surfaces are small and the majority of the area is gently sloped. Changes in soil profile would be negligible where improvements occur in previously disturbed areas (e.g., parking lots, trails) and would have minor long term affects in new developments (e.g., vault toilets, viewing blinds, new trails).

Revegetating 13.8 acres of disturbed areas would help stabilize soils, increase vegetative cover, improve soil structure, and reduce erosion over the long term. Herbicide treatments would expose soil to erosional forces, especially in the Exotic Annual type, over the short term until desirable species become established. Restoration would improve long-term soil stability on up to 126 acres. There would be a minor increase in biological soil crust cover in restored areas over the long term.

Vegetation

Elimination of OHV use would allow perennial vegetation to become established on 13.8 acres over the long term. Herbicide treatments would reduce vegetation cover on up to 130 acres over the short term, but there would be a minor to major long-term increase in perennial vegetation and biological soil crust cover. Shrubs and perennial forbs and grasses would become established on up to 126 acres that are currently dominated by exotic annuals. There would be a moderate increase in resistance to noxious and invasive species over the long term and a minor reduction in susceptibility to fire. A major source of disturbance and introduced species (OHVs) would be removed; foot travel and pets would be a negligible source of weeds over the long term. There would be a minor (e.g., reduction in trails) to moderate (e.g., conversion from Exotic Annuals to perennial-dominated communities) long-term reduction in habitat fragmentation on up to 256 acres. Reduction or removal of continuous fine fuels (e.g., exotic annual grasses) would help reduce the size and intensity of fires; however, increased visitor use could result in more fire starts.

Vegetation would be removed or absent over the long term on up to 6.5 acres where visitor facilities (e.g., parking lots, vault toilets, blinds, and trails) are developed. The periphery of these developments would be susceptible to noxious and invasive species over the long term, but control activities would minimize establishment or spread of noxious weeds.

Special Status Plants

Slickspot peppergrass habitat would improve over the long term. Removal of OHV activity would eliminate habitat loss and destruction of slickspots caused by human disturbance. Herbicide use could cause a short-term reduction in slickspot peppergrass germination where overspray occurs. Herbicide use during dormant periods and untreated buffers around slickspots would help minimize impacts. There would be a minor to moderate long-term improvement in

pollinator habitat where native perennial forbs and shrubs become established and habitat fragmentation is reduced.

3.1.3 Cumulative Impacts – Watershed/Vegetation/Special Status Plants

3.1.3.1 Scope of Analysis

The scope of analysis is a 1.5 mile buffer (8,485 acres) around the three BLM parcels described above. This buffer includes habitat that would support insect pollinators of many of the native forb and shrub species.

3.1.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

Approximately 72% of the area is Exotic Annuals, 23% of the area is native perennials, and the remainder is agriculture or inundated (Table 4). Eighteen wildland fires since 1980 affected 72% of the area. The majority (81%) of the area is highly susceptible to erosion, especially where dominated by exotic annuals. The degree of fragmentation and amount of area dominated by exotic annuals would remain static or increase over the long term because of development, livestock grazing, OHV use, and wildland fires.

3.1.3.3 Cumulative Impacts - Alternative A

Watershed

Minor to moderate erosion on annual-dominated and disturbed areas (67.5 acres) would have a negligible effect on the analysis area because similar conditions would occur on up to 6,154 acres over the long term.

Vegetation

Long-term conversion of up to 78 acres from shrubs and perennial grasses to Exotic Annual type and habitat fragmentation would have negligible additional cumulative effects. Similar conversions on public and private lands in the analysis area would be expected and residential development would result in loss of vegetation and moderate threats to adjacent areas. Large scale fires could eliminate up to 1,449 acres of shrubs over the long term. Increased recreational use would remove minor amounts of vegetation, but increase noxious and invasive weeds over a wide area.

Special Status Species

Poor habitat conditions over 125 acres would have a negligible additional cumulative effect. The majority (75%) of the analysis area is in poor condition and the remaining area would be expected to be in poor condition over the long term because of development, fragmentation, grazing, recreational activity, and wildland fires.

3.1.3.4 Cumulative Impacts - Alternative B

Watershed

Moderate stabilization, minor increases in biological soil crust cover, and improved soil profile of up to 125 acres would have a negligible cumulative effect because cover and soil conditions would be inadequate to stabilize soils on up to 7,821 acres over the long term.

Vegetation

Long-term stabilization or increases in perennial vegetation cover would have negligible cumulative benefits. Construction of visitor facilities would cause negligible additional vegetation loss over the long term. Long-term vegetation loss caused by development and wildland fire would occur over the majority of the analysis area.

Special Status Species

Improved habitat conditions over 125 acres would have a negligible additional cumulative effect. Poor habitat conditions or complete loss of habitat would occur over the majority of the analysis area.

3.2 Wildlife/Special Status Species

3.2.1 Affected Environment – Wildlife/Special Status Species

The area provides a diversity of wildlife habitats including shrubland, grassland, emergent wetland, mud flat, and open water. It provides both seasonal (e.g., breeding, spring or fall stopover, or wintering) or year-round habitat for more than 160 species of birds including 16 BLM special status species. It provides marginal habitat for ungulates because of disturbance factors (e.g, recreational uses, Kuna-Mora Road) and lack of shrub cover; however, small mammals (e.g., ground squirrel, badger, and coyote) are common year-round.

Brewer's sparrow, a special status species, utilizes shrub communities for breeding, nesting, and brood rearing. Shrub cover is adequate, but the understories provide marginal habitat because of the prevalence of exotic annuals and reduced perennial forb cover. Horned lark, western meadowlark, and Piute ground squirrel are typical grassland species that can use Exotic Annual areas, but perennial-dominated grasslands provide more consistent cover and food regardless of annual climatic variations. Burrowing owl and other raptors can be found along the upland banks of the reservoir. Emergent wetlands and mudflats provide habitat for shorebirds including American avocet and black-necked stilt. Vegetative needs for these species are typically met by early seral species or no cover; however, extensive OHV use has degraded soil conditions for invertebrate prey. The reservoir is used during breeding and migration by waterfowl, other water-birds, and shorebirds.

OHV and recreational shooting activities disturb animals and degrade habitat conditions for most species. These activities are most prevalent during the spring and fall which coincide with peak nesting and migration periods.

3.2.2 Environmental Consequences – Wildlife/Special Status Species

3.2.2.1 General Discussion of Impacts

The general effects of human activities (e.g., recreation, development, and other uses) on wildlife would include changes in habitat quality and structure, nest/burrow destruction, fragmentation, and disturbance. Impact would occur over the short (< 1 year) or long (1-10 years) term.

Changes in Habitat Quality/Structure

Human activities can directly and indirectly affect habitat quality and structure. Activities that eliminate vegetation cause a long-term loss of foraging, nesting, and escape cover. Activities

that alter plant communities from native perennial species to exotic annuals would benefit species that use disturbed or early successional habitats (e.g., long-billed curlew, horned lark), but would provide marginal foraging habitat for most other species.

Nest/Burrow Destruction

Human activities could potentially damage or destroy nests and burrows. If activities occur during the nesting period or while species reside in their burrows, OHV or heavy equipment use could cause adult mortalities, but are more likely to impact juveniles that are present because of their reduced mobility. Larger, heavier equipment (e.g., trucks, tractors, motorcycles) would be more likely to destroy nests and burrows than human or dogs.

Fragmentation

Roads and trails can reduce usable habitat patch sizes by eliminating connectivity because of change in vegetation type (e.g., from shrub to grassland type) or disturbance that restrict movement. Animals that require large, contiguous blocks of habitat (e.g., Brewer's sparrow) are more sensitive to fragmentation than generalist species (e.g., Piute ground squirrel) that can use a variety of habitats.

Disturbance

Human activities can cause temporary disturbances in breeding or feeding behaviors which could reduce short-term reproductive fitness and condition, or expose animals to predation. Disturbance sensitive species could avoid areas over the long term. Depending on the surrounding topography and vegetation, a fence can blend into the background causing collisions for birds resulting in mortality. Fences can be used as perches by avian predators. Fences impede movement of wildlife, particularly big game.

3.2.2.2 Alternative A

Habitat quality and structure would degrade over the long term as human activities and wildland fires convert perennial communities to exotic annual communities. Grassland (horned lark, western meadowlark) populations would increase and shrubland (Brewer's sparrow) populations would decrease. Widespread and increased use of OHVs would cause minor nest and burrow destruction over the long term. Current levels of fragmentation (8 miles of trails in 255 acres) would moderately increase over the long term as OHV use increases; however, wildland fire caused conversion to the Exotic Annual type would reduce fragmentation for species that utilize that type. Increased OHV use and recreational shooting would disturb animals throughout the year; reducing or eliminating use by disturbance intolerant species.

3.2.2.3 Alternative B

Vegetation treatments would help maintain or improve habitat quality and structure over the long term as exotic annuals are replaced by perennial grasses, forbs, and shrubs. The proposed herbicides are considered not acutely toxic to slightly toxic for insects, birds, mammals, and fish (USDI 2007, Table 7); therefore, there would be negligible effects from herbicide use. Construction and restoration activities using heavy equipment would have negligible, short-term impacts on nests and burrows; however, they would occur primarily in previously disturbed areas where vegetation cover is absent and soils are compacted. Closure and restoration of 4.5 miles of trails would cause a moderate reduction in habitat fragmentation. Disturbance from OHVs would be eliminated over the long term on both BLM-administered and private lands adjacent to

BCR. Pedestrian use would cause minor to moderate short term disturbances, but would be restricted to 3.1 miles of trails and seasonal closures would reduce or eliminate impacts during critical wildlife use periods.

3.2.3 Cumulative Impacts – Wildlife/Special Status Species

3.2.3.1 Scope of Analysis

The scope of analysis is a 1.5 mile buffer (8,485 acres) around the three BLM parcels described above. This buffer includes habitat that would support home ranges for foraging by typical resident or nesting bird and small mammal species.

3.2.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

Wildlife habitat in the analysis area is substantially altered. Wildland fires and historic grazing have reduced native shrubs, grasses, and forbs which have been replaced with exotic annuals in 72% of the area. The area is highly fragmented by degraded habitat. OHV trail density is somewhat lower south of the Kuna-Mora Road; however, roads are widely dispersed throughout the area and there 17.8 miles of roads on private lands immediately adjacent to the reservoir (0.5 mile buffer to north of Kuna-Mora Road) and 21.5 miles of roads on BLM-administered lands south of the Kuna-Mora Road. Unauthorized target shooting occurs year-round on private lands adjacent to the reservoir causing habitat degradation (from associated roads, litter, and fires) and disturbance. Planned communities have been proposed on adjacent private lands; however, because of current economic conditions, these proposals would not be expected to move forward in the foreseeable future (3+ years). Habitat degradation, primarily wildland fires converting shrublands to grasslands, would affect the majority of the area over the long term.

3.2.3.3 Cumulative Impacts - Alternatives A

Minor to major habitat degradation would occur over the long term. Minor to moderate changes on 255 acres would have a minor additive effect. However, because of the proximity to water and the importance of water for most wildlife species, habitat degradation and disturbances around the reservoir would affect substantially more species than similar changes in upland habitats >0.25 miles from the reservoir. Loss of upland shrub communities would favor grassland species over the long term.

3.2.3.4 Cumulative Impacts - Alternatives B

Moderate improvements in habitat quality and reductions in fragmentation on up to 255 acres would have a minor additive benefit over the long term. Increased OHV use on BLM-administered lands south of the Kuna-Mora Road would cause fragmentation and disturbance over the long term. Because of restricted access, State and private lands would be less affected. Large-scale conversion to grasslands would offset any improvements on the BLM parcels.

3.3 Recreation

3.3.1 Affected Environment – Recreation

As the Treasure Valley's population grows, open space becomes more important as a place of recreation and relaxation. The project area is located on the southeastern edge of the Treasure Valley, Idaho's largest population center. This close proximity to Boise, Meridian, Nampa,

Eagle, and Caldwell makes BCR a popular destination for a variety of motorized and non-motorized recreational uses.

The BLM parcels are managed as part of an extensive recreation management area (ERMA). Management emphasis in an ERMA focuses primarily on visitor health and safety, avoiding user conflict, resource protection, and land health. Typically this custodial management approach is not intensive and there are no or limited recreational facilities such as trailheads, potable water, interpretive signs, or vault toilets provided. Within an ERMA there may be small zones of concentrated recreation use that warrants the need for more intensive recreation management but not to the extent necessary to designate it a Special Recreation Management Area. Current facilities at BCR consist of two unimproved parking areas and three informational kiosks at primary entry points.

Current Recreational Uses – BCR is used for a variety of motorized and non-motorized uses. The primary motorized activity is testing a vehicle’s ability to traverse extremely muddy soils, also known as “mud-bogging.” Several popular non-motorized activities include target/skeet shooting, bank fishing, bird watching, and hunting.

The IDFG promotes BCR as a family fishing area with opportunities for warm water species like perch, bluegill, crappie, and largemouth bass. The reservoir is also a good place to introduce children to ice fishing. The fishery was eliminated in 2011 when a valve was destroyed on the dam and the reservoir drained. The fishery began recovering in 2012 when the valve was repaired and the reservoir was restocked.

The project area is within Big Game Hunt Unit 38 which is open for the following:

- Deer - Archery season - Aug 30-September 30
- Short-range weapon - Oct 10 – Oct 31

BCR is in Area 2 for waterfowl hunting. The start and end dates vary from year to year but are generally as follows:

- Dark Goose – mid-October to late January
- Light Goose – early November to late January
mid February to early March
- Duck – mid October to late January

Users would continue to be able to hunt during legal seasons at BCR.

The IDFG identified BCR as an Important Bird Area (IBA) in 1995 for its importance as a stop-over point for migrating shorebirds. BCR is a very popular bird watching area used by people across the Treasure Valley.

For more than half the year the water level is less than half its full pool size. This fluctuation creates large areas around the reservoir that are dry most of the year and creates mudflats as the water level drops. The BLM parcels are crisscrossed by 7.5 miles of dirt and two-track roads as well as dry washes used as trails. The mudflats attract OHV users wishing to “mud bog.”

The mixed ownership of public and private lands makes certain recreational activities a challenge. There is legal public access on the west end, adjacent to and around the dam, which is good for fishing, waterfowl hunting, and bird watching opportunities. The eastern BLM parcel is adjacent to the Kuna-Mora Road, but does not connect with the other, larger portion of BLM land and provides limited recreational opportunities. Target shooting occurs primarily on adjacent private lands, where low hillsides are used for back stops. Landowners have posted the area for no trespassing or shooting; however, the signs have been removed by recreationists within a few weeks. The area is also a popular location for the non-recreational activity of dumping trash, especially associated with target shooting.

Though direct recreation use counts are not available, BLM estimates that dispersed recreation use is about 2,000-3,000 visits per year. This estimate is based on the following assumptions:

- Weekday use averages from 0 – 10 visits daily throughout the year.
- Weekend use, especially during spring and fall, could likely be 2–3 times higher than week day use.
- The highest use period in the area occurs prior to fall hunting season for target shooting.

3.3.2 Environmental Consequences – Recreation

3.3.2.1 General Discussion of Impacts

Impacts to recreation include changes in recreational opportunities available and changes in visitors' experiences. Activities that result in degraded environmental conditions could adversely affect certain visitor experiences.

3.3.2.2 Alternative A

A variety of recreational activities including fishing, hunting, bird watching, OHV use, and target shooting would be available over the long term. These uses are likely to increase as the Treasure Valley population increases. Uncontrolled OHV use would allow continued creation of deep ruts and destruction of vegetation. Trash and litter associated with target shooting would also likely to continue. Increased OHV use and target shooting would degrade environmental and “natural” conditions over the short and long term. These degraded conditions would have moderate adverse effects on non-motorized users both in the short (e.g., where OHV or shooting activities disrupt bird watching or hunting) and long term (e.g., where degraded habitat conditions reduce the diversity of wildlife present and, consequently, the wildlife viewing or hunting experiences). Recently constructed fencing on adjacent private lands would not affect access to BLM parcels.

3.3.2.3 Alternative B

Elimination of OHV impacts to vegetation would result in a major improvement in the overall “natural” condition over the long term. Visitors seeking a natural experience would encounter better vegetative conditions, greater scenic quality, and would not encounter OHVs. These conditions would lead to a higher quality recreational experience for those seeking non-motorized opportunities. Bird watchers, fishermen, and hunters may experience a minor (for physically fit individuals) to moderate (for physically challenged individuals) long term adverse impact from no longer having motorized access and being required to walk or use a wheelchair to reach the water's edge. This impact would likely be offset by the more natural setting and the

lack of perceived negative impacts from other activities (mud bogging, trash dumping, and target shooting).

Construction of facilities (e.g., parking areas, vault toilets, trails, kiosks, and viewing blinds) would result in a moderate improvement in visitor experiences over the long term because these facilities did not exist or were in poor condition. Vegetation treatments could have minor short-term affects where vegetative cover is reduced; however, long-term improvements in vegetation conditions would have moderate benefits to visitor experiences.

Closure of 255 acres to motorized access would have a moderate (target shooters) to major (OHV enthusiasts) impact over the long term. Target shooters would have to walk up to 0.5 miles to use traditional shooting sites on private lands; however, shooting restrictions on private lands could be more effectively enforced over the long term. A moderate decrease in litter would occur over the short and long term. Mud bogging and other OHV activities would not be available over the long term.

3.3.3 Cumulative Impacts – Recreation

3.3.3.1 Scope of Analysis

The scope of the cumulative impacts for recreation is the desert and foothills areas used for recreation within five miles of BCR (62,400 acres). Legal public access and the associated recreational use is somewhat restricted by private lands (35,300 acres).

3.3.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

The BLM parcels are relatively small blocks of public land that are highly valued by local residents for open space values and recreational opportunities. It is foreseeable that over time this area will be surrounded on two or three sides by residential housing. As the surrounding population grows, there will be a greater demand to provide open space opportunities to an increasing number of people. There has been a large amount of habitat degradation and bird disturbance resulting from OHV use on private lands immediately adjacent to the BLM parcels. There is also some illegal shooting of protected bird species. The potential for conflicts between land management objectives and the recreating public and for increasing safety issues is likely to increase if these uses are not adequately managed. Vegetative communities on public lands are dominated by Exotic Annuals (approximately 60%) and fair or poor condition shrub-dominated types.

Approximately 26% (16,475 acres) of the analysis area is public lands of which 97% (15,945 acres) are designated as open to OHV use. Surrounding public lands are available for target shooting and IDFG and private shooting ranges are available 0.25 and 3 miles west of the BLM parcels. The Bonneville Point Oregon Trail interpretive site (no restroom facilities) is the only BLM developed recreation site. There is a model airplane runway located about 0.75 mile southwest of BCR operated by the Boise Area Remote Kontrol Society (B.A.R.K.S.) under a Recreation and Public Purposes Act permit. A popular OHV rock crawling area is located about 4 miles south of BCR on BLM and private lands.

3.3.3.3 Cumulative Impacts - Alternative A

Degraded environmental and “natural” conditions on the BLM parcels would have a minor additive adverse impact on visitor experiences, especially bird watching and fishing. Although they make up <2% of public lands in the analysis area, recreational use of the BLM parcels is disproportionately greater because of the presence of water and associated diversity of recreation activities. Not providing visitor facilities on the BLM parcels would have a negligible additive adverse effect on visitor experiences because there are few facilities available.

Maintaining the open designation on the BLM parcels would have a minor additive cumulative benefit for OHV users. Although the parcels are a small proportion of public lands, in conjunction with the adjacent private lands, they provide a relatively unique opportunity for a subset of OHV users (mud bogging). Although shooting could be restricted on adjacent private lands, continued vehicle access on the BLM parcels would make enforcement of restrictions difficult.

3.3.3.4 Cumulative Impacts - Alternative B

Improved vegetation conditions and elimination of OHVs would have a minor additive cumulative benefit for visitor experiences over the long term. The majority of the area (98% of public lands) would continue to have degraded conditions and be open to OHV activities. Additional visitor facilities would have a moderate additive benefit over the long term because they would be associated with an area that receives relatively more visitor use than surrounding areas that are not associated with water.

Elimination of OHV access on 255 acres would have negligible adverse effects over the long term. OHV use could occur on the remaining public lands which would provide for all the same opportunities except mud bogging. Reduced access, especially on adjacent private lands, would have a minor adverse cumulative impact to target shooters. Opportunities would be available over the long term on public lands and at developed ranges.

3.4 Visual Resources

3.4.1 Affected Environment – Visual Resources

Scenic quality is the relative worth of a landscape from a visual perception point of view. The BLM is mandated to consider visual character during project planning and developed the Visual Resource Management (VRM) system for that purpose. The VRM system provides a way to identify and evaluate scenic values to determine appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. Factors of scenic quality include landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. All BLM lands are categorized in one of four VRM classes.

- Class I Objective: To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention
- Class II Objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low

- Class III Objective: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.
- Class IV Objective: To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

Current Conditions - The BLM parcels are managed as a VRM Class III area. Management activities may attract attention, but should not dominate the view of the casual observer. Change should repeat the basic form, line, color, and texture elements found in the natural landscape.

The BLM parcels are characterized by low, rolling terrain surrounding a small reservoir and flood plain. The combination of arid grasslands and low-growing shrubs adjacent to a reservoir and associate wetland vegetation creates an irregular mosaic of muted browns, greens, and yellows that exhibit fine to medium textures. The scenery adjacent to the reservoir exhibits a rural landscape where constructed features like roads and residences are widely scattered. Visual contrasts are readily noticeable due to proximity to local residents and the viewing angles of travelers along the Kuna-Mora Road.

Residents, directly west of the reservoir, experience middle to background views of the area for potentially long durations. Motorists traveling along Kuna-Mora Road experience brief foreground views, and longer middle ground and background views. Commuters along Kuna-Mora Road may experience these views frequently.

3.4.2 Environmental Consequences – Visual Resources

The VRM class assigned to the area is evaluated against the impacts of the proposed alternatives to determine what, if any, mitigation is required to meet the VRM class objectives.

3.4.2.1 Alternative A

Class III management objectives would not be met over the long term. The indiscriminate shooting, trash dumping, OHV use, and mud bogging would distract from the surrounding natural environment by creating contrasts with existing color, line, and texture. Livestock grazing would result in fewer changes in the vegetation due to grazing thus minimizing changes to the texture of the landscape. Existing fences along Kuna-Mora Road would continue to be noticed but would not dominate the view to the casual observer because the shrub height is close to the fence height and the post color blends in with the vegetation color.

3.4.2.2 Alternative B

Class III management objectives would be met over the long term. Adding fencing along the Kuna-Mora Road would tie in with existing fences. These fences would continue to be noticed but would not dominate the view to the casual observer because the shrub height is close to the fence height and the post color blends in with the vegetation color. Removing motorized use would reduce contrast in the color, line, and texture of the area as routes re-vegetate and trash is removed. Short-term disturbance caused by the presence of equipment would be visible during the construction of fences and parking areas. Visitor facilities (e.g., parking areas, vault toilets, trails, kiosks, and viewing blinds) would attract attention, but would not dominate views over the long term because of their small footprint (up to 6.5 acres), low stature (no structure would be >12 feet tall), and colors that blend well with surrounding vegetation.

3.4.3 Cumulative Impacts – Visual Resources

3.4.3.1 Scope of Analysis

The scope of the cumulative impacts for VRM is the desert and foothills areas within five miles of BCR (62,400 acres). This area represents what is immediately visible from the parcels and could affect BCR users.

3.4.3.2 Current Conditions and Present Effects of Past, Present, and Foreseeable Future Actions

The majority of public lands are managed as Class III (8,050 acres) or Class IV (7,730 acres). Approximately 965 acres are managed as Class I in association with the Oregon Trail. Numerous linear features (e.g., I-84, six high-voltage transmission lines, two railroads, and numerous secondary roads) traverse public lands or are visible from them. Structures on private and State lands range from low density residential dwellings (primarily along the Kuna-Mora Road) to a few major structures (e.g., Idaho State Penitentiary, warehouses, Micron, and a shopping center). The terrain, colors, and textures are similar to the BLM parcels. Wildland fires and development are the primary activities that could alter visual resources in the foreseeable future. Wildland fires would alter colors and textures over the short term, especially where shrublands are converted to grasslands. Although private lands could be developed adjacent to BCR, minor changes would be expected within the next five years.

3.4.3.3 Cumulative Impacts - Alternative A

Not meeting Class III objectives on 255 acres would have a negligible additive adverse effect on visual resources over the long term. The presence of large, noticeable features (e.g., high voltage transmission lines) would dominate views.

3.4.3.4 Cumulative Impacts - Alternative B

Meeting Class III objectives on 255 acres would have a negligible additive benefit to visual resources over the long term. Improvements in vegetation conditions would be noticeable only in close proximity to BCR, whereas long-term loss of shrubs in surrounding areas would dominate the view.

3.5 Livestock Management

3.5.1 Affected Environment – Livestock Management

Two permittees use the 76,000 acre Sunnyside Spring/Fall Common Pasture of the Sunnyside Spring/Fall Allotment primarily during the spring (Table 1). There is some fencing on private lands near BCR, but livestock have access to the reservoir which is an important water source in the pasture.

3.5.2 Environmental Consequences –Livestock Management

3.5.2.1 Alternative A

Uninterrupted livestock access to BCR would continue over the long term. Negligible disturbance of livestock and habitat alteration would occur from OHV use and other recreational activities.

3.5.2.2 Alternative B

Restricting access to four locations along a 1.4 mile section of the Kuna-Mora Road would have a negligible effect on livestock. Water would still be available, and some disturbance factors would be reduced (e.g., target shooting) or eliminated (e.g., OHV use). Fencing vegetation treatments would have a negligible short-term effect on forage availability and would result in a negligible long-term improvement in forage conditions. Non-motorized recreational use could cause negligible disturbance of livestock.

3.5.3 Cumulative Impacts – Livestock Management

Because impacts from either alternative would be negligible, cumulative impacts will not be discussed.

4.0 Consultation and Coordination

4.1 List of Preparers

Name	Position	Resource
Terry Humphrey	Field Office Manager FRFO	
Matt McCoy	Assistant Field Office Manager	
Dean Shaw	Archaeologist	Cultural
Mark Steiger	Botanist	Special Status Plants
Allen Tarter	Natural Resources Specialist	Riparian
Lara Hannon	Ecologist	Uplands
Mike Barnum	Rangeland Management Specialist	Livestock Grazing
Michele Porter	Geographic Information System Specialist	Geographical Information Resources
Larry Ridenour	Outdoor Recreation Planner	Recreation
Joseph Weldon	Wildlife Biologist	Wildlife
Seth Flannigan	NEPA Coordinator	

4.2 List of Agencies, Organizations, and Individuals Consulted

Wings and Roots – June 21, 2012

U. S. Fish and Wildlife Service

Idaho Department of Fish and Game

Idaho Department of Lands

4.3 Public Participation

Public comments were received from:

Bruce Ackerman

Lyman Belnap

Janet Buschert

Russ Buschert

Ann Debolt

Mark Foster

Golden Eagle Audubon Society

Dave Hazelton

Raymond Heady

Idaho Conservation League

Idaho Department of Fish and Game

Idaho Department of Lands

Nancy and John Krueger

Tom McCabe

Norman Nelson

Sue Norton

Bryan Palfreyman
David Palfreyman
Patrick and Carole Patton
Judith Reppell

Alexander Sapiens
Jennifer Robbins Smith
Karen Steenhof
Ann Swanson

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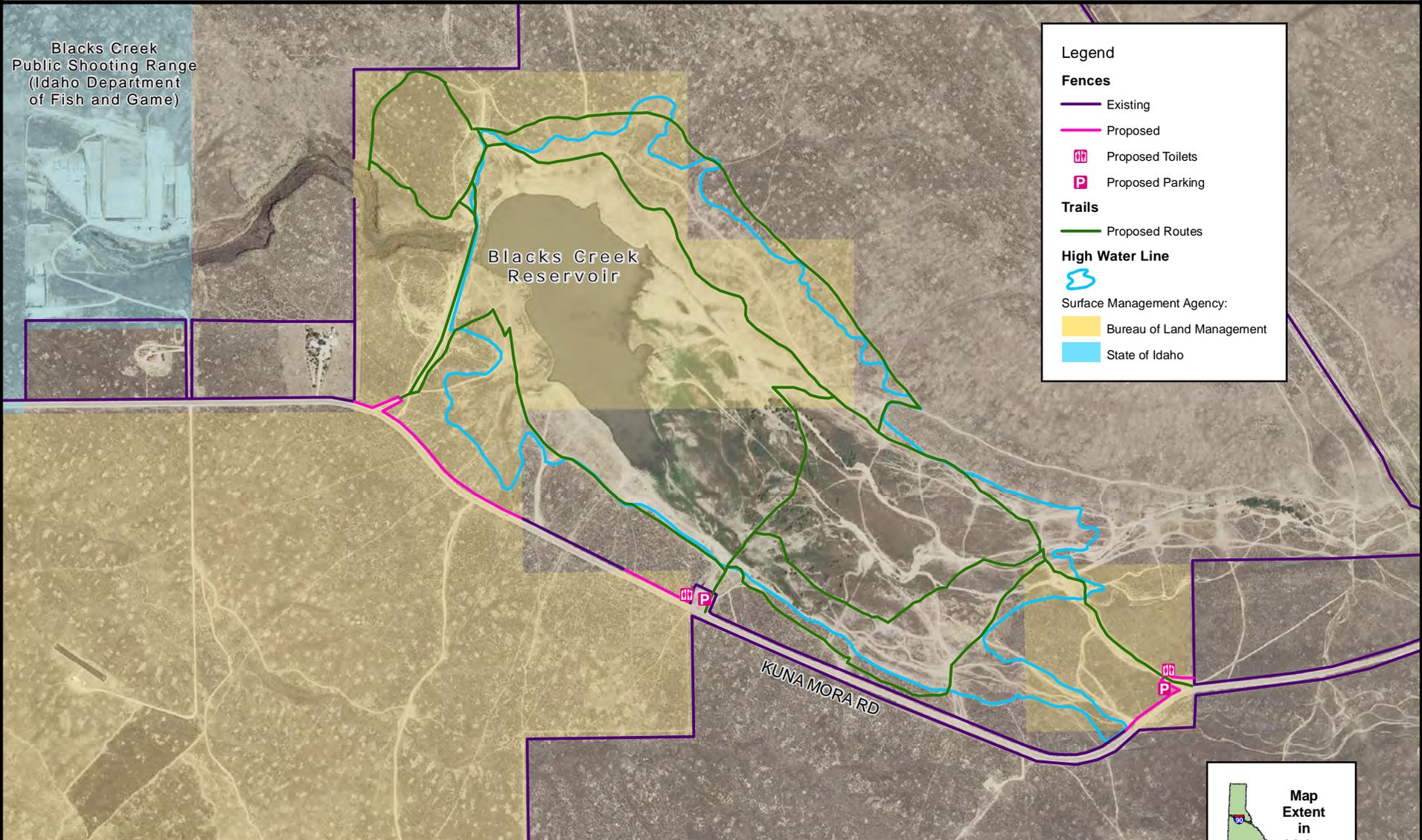
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6.0 **Map**

Blacks Creek Reservoir - Proposed Management



Legend

Fences

- Existing (purple line)
- Proposed (pink line)

Proposed Toilets (toilet icon)

Proposed Parking (P icon)

Trails

- Proposed Routes (green line)

High Water Line (blue wavy line)

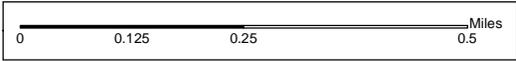
Surface Management Agency:

- Bureau of Land Management (yellow shaded area)
- State of Idaho (blue shaded area)



U.S. Department of the Interior
 Bureau of Land Management, Idaho
 Boise District, Four Rivers Field Office

Map date: August 31, 2012



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