

Snake River Birds of Prey National Conservation Area



Volume 1
Proposed Resource Management Plan and
Final Environmental Impact Statement
ID-111-2006-EIS-1740
February 2008



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

Cover Graphic of Golden Eagle by: Jenay Law, 2005; Senior, Kuna High School



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Boise District Office

3948 Development Avenue

Boise, Idaho 83705

<http://www.id.blm.gov/offices/lsrcd>



In Reply Refer To:

Dear Reader:

Enclosed for your inspection is the Proposed Resource Management Plan/Final Environmental Impact Statement (Proposed RMP/FEIS) for the Snake River Birds of Prey National Conservation Area (NCA). This Proposed Plan/FEIS sets forth the management direction for approximately 483,700 acres of public lands in southwest Idaho.

BLM published a Notice of Intent to prepare the RMP and associated EIS in the August 7, 2001 Federal Register. The BLM then solicited public input and developed four management alternatives, including a No Action alternative and three action alternatives that provided different strategies for managing the NCA in the future. These alternatives were presented and analyzed in the Draft RMP/EIS. A Notice of Availability for the Draft RMP/EIS was published in the Federal Register on June 2, 2006, and copies of the Draft RMP/EIS were made available to the public through several outlets. Alternative D was identified as the Preferred Alternative in that document.

This document, the Proposed RMP/FEIS, presents an overview of the planning process and planning issues, describes all alternatives and their associated impacts, summarizes public comments received on the Draft RMP/EIS, and provides responses to the substantive issues raised. Alternative D, which is identified as the Proposed RMP, is based on the Preferred Alternative (Alternative D) presented in the Draft RMP/EIS. However, the Proposed RMP differs from the Preferred Alternative in a couple of significant ways:

1. The Proposed RMP includes a new utility corridor similar to that proposed in Alternative C of the Draft RMP, except that the corridor lies approximately two miles north of the Saylor Creek Bombing Range so as not to compromise the Air Force existing air space restriction.
2. The Draft RMP included route density proposals that were created by averaging the existing routes across the entire NCA. Expressing route density objectives in number of miles of route per square mile left too much room for interpretation. We have now defined polygons that contain specific route density categories (i.e., low, medium, high). This provides a basis for understanding the current route density situation. As a part of the RMP implementation process, specific route designations will occur.

The document also incorporates a number of wording changes or clarifications recommended by reviewers. These changes did not affect the alternatives, but rather clarified discussions related to wild-life management, vegetation treatment, habitat restoration, military training, grazing, recreation, etc. in the affected environment chapter.

BLM appreciates the amount and quality of public involvement that has occurred throughout this planning process. We believe that the Proposed RMP/FEIS represents a collaborative effort that would not have been possible without the participation of the public, Idaho Army National Guard; Owyhee County; State and local governments; and consultation with Tribal governments.

Once adopted, the Proposed RMP/FEIS will become the Final Resource Management Plan and will serve as the guiding management strategy for the NCA. It will provide a framework for proactive decision-making, that will ensure continued public use of the NCA in a manner that conserves and protects its natural and cultural resources, as mandated by the NCA-enabling legislation. The Final RMP will provide overall guidance under which more detailed activities are conducted or implementation plans are prepared.

This Proposed RMP/FEIS is open for a 30-day protest period beginning with the date the U.S. Environmental Protection Agency (EPA) publishes the notice of availability in the Federal Register. The BLM Planning Regulations, 43 CFR 1610.5-2, state that any person who participated in the planning process and has an interest which may be adversely affected may protest. A protest may raise only those issues which were submitted and discussed during the earlier planning process. Protests must be filed with the Director, Bureau of Land Management.

Protests through regular and overnight mail should be sent to: Director Bureau of Land Management (210) Attention: Brenda Hudgens-Williams, 1620 L Street, Suite 1075, Washington, D.C. 20036. E-mailed and fax protests will not be accepted as valid protests unless the protesting party also provides the original letter by either regular or overnight mail postmarked by the close of the protest period. Under these conditions, e-mailed or faxed protests will be considered as advance copies, and will receive full consideration. If you wish to provide BLM with advance notification, please direct faxed protests to the attention of the BLM protest coordinator at 202-452-5112, and e-mails to Brenda_Hedgens-Williams@blm.gov.

Protests must be written and must be postmarked on or before the 30th day following EPA's publication of the Notice of Availability in the Federal Register, and must contain the following information:

- The name, mailing address, telephone number, and interest of the person filing the protest;
- A statement of the issue or issues being protested;
- A statement of the part or parts of the document being protested;
- A copy of all documents addressing the issue or issues previously submitted during the planning process by the protesting party, or an indication of the date the issue or issues were discussed for the record; and
- A concise statement explaining precisely why the decision presented in the Proposed RMP/FEIS is believed to be wrong.

The Director, Bureau of Land Management, will promptly render a decision on the protest. The decision will be in writing and will be sent to the protesting party by certified mail, return receipt requested. The decision of the Director shall be final.

Comments, including names and addresses of respondents, will be retained on file in the Boise District Office as part of the public record for the NCA planning effort. Individual respondents may request confidentiality. If you wish to withhold your name or address from public inspection or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

Upon resolution of any protests, the RMP will be approved and a Record of Decision will be issued. The RMP/Record of Decision will be mailed to all individuals who participated in this planning process and all other interested publics upon their request.

Sincerely,

A handwritten signature in blue ink that reads "John Sullivan". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

John Sullivan
NCA Manager

**PROPOSED SNAKE RIVER BIRDS OF PREY NATIONAL CONSERVATION AREA
RESOURCE MANAGEMENT PLAN AND
FINAL ENVIRONMENTAL IMPACT STATEMENT
ADA, CANYON, ELMORE, AND OWYHEE COUNTIES, IDAHO**

1. Responsible Agency: United States Department of the Interior
Bureau of Land Management
2. Draft () Final (X)
3. Administrative Action (X) Legislative Action ()
4. Abstract: The Snake River Birds of Prey National Conservation Area (NCA) Proposed Resource Management Plan and Final Environmental Impact Statement has identified four alternatives for managing approximately 483,700 acres of public land in southwest Idaho. These alternatives were developed after consultation with both the Shoshone-Bannock and Shoshone Paiute American Indian Tribes, and with extensive input from the public. Owyhee County and the Idaho Army National Guard (IDARNG) have been cooperators in the process. Alternative D is the proposed NCA Resource Management Plan.

Alternative A – Current Management (No Action)

Theme: The habitat restoration program would be driven primarily by emergency fire rehabilitation processes, resulting in a minimal increase in the acreage of shrub communities. Current uses would be accommodated, but could be moderated based on new laws, regulations, or policies.

Alternative B

Theme: Emphasis is on restoring a moderate amount of raptor and raptor prey habitat in addition to those areas affected by emergency fire rehabilitation and fuels management projects. This alternative would accommodate recreation, military and commodity uses that are compatible with the purposes of the NCA.

Alternative C

Theme: This alternative emphasizes the restoration and rehabilitation of all non-shrub areas outside the Orchard Training Area (OTA) to improve raptor and raptor prey habitat. To support this level of habitat restoration, recreation and military training would be substantially restricted, and livestock grazing preference would be eliminated.

Alternative D –Proposed Alternative

Theme: This alternative emphasizes the restoration and rehabilitation of all non-shrub areas outside the OTA to improve raptor and raptor prey habitat, while imposing only moderate restrictions on recreation, military training, and commercial uses.

5. Date Draft EIS made available to EPA and public: May 19, 2006
6. Date Final EIS made available to EPA and public: February 29, 2008
7. Date protest must be received: March 31, 2008
8. For further information contact:

Mike O'Donnell

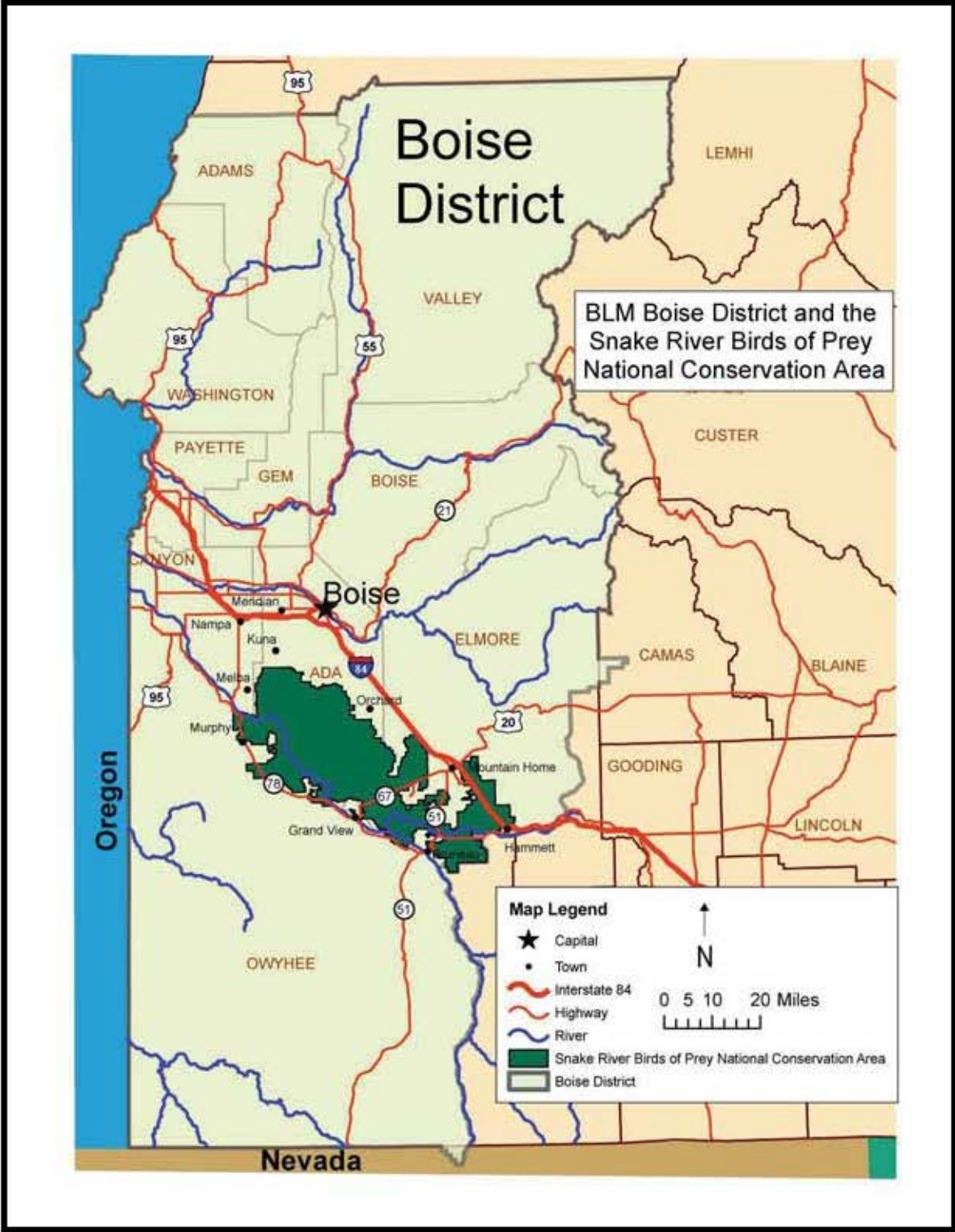
Bureau of Land Management, Boise District

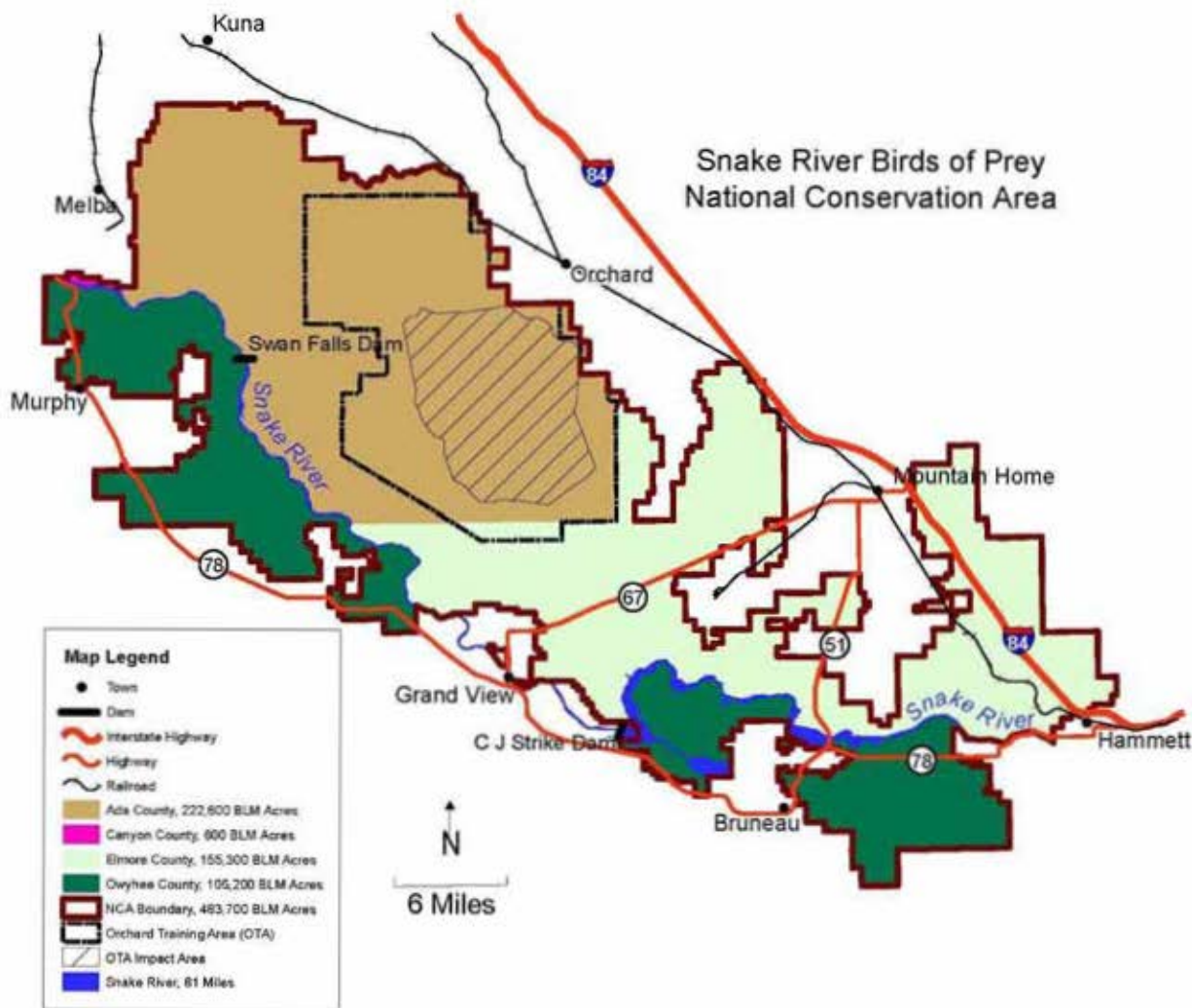
3948 Development Avenue

Boise, Idaho 83705

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Telephone: (208) 384-3315





How to Read this Document

To read this Proposed Resource Management Plan and Final Environmental Impact Statement (RMP/EIS) more effectively, review this page.

Following federal regulations, we have designed and written this RMP to: (1) provide the Bureau of Land Management (BLM) with sufficient information to make informed reasoned decisions concerning the Snake River Birds of Prey National Conservation Area (NCA), and (2) inform the public about potential management options for the NCA so they may express their opinions and concerns.

The document has been developed and organized to provide the reader with sufficient information to understand the issues to be addressed, the environment in which these issues arise, the range of management actions that are available to address the issues, and then the social and environmental consequences of these actions. The chapters are written so that non-technical readers can understand the potential environmental, technical, and economic consequences of each of the alternatives.

- **Chapter 1** (Purpose and Need) introduces the NCA and describes the purpose and need for the RMP/EIS. This chapter provides a brief description of the planning area, scoping and planning issues, desired future conditions, planning criteria, planning process, consistency with other plans, and how alternatives were developed.
- **Chapter 2** (Affected Environment) describes the existing environment in the NCA that would affect or be affected by management actions. This chapter is part of the baseline used for analyzing the effects of the alternatives (Chapter 4).
- **Chapter 3** (Alternatives) provides detailed descriptions of the four alternatives. The chapter also provides a summary of environmental consequences by alternative and, as appropriate, their success in achieving objectives, thus providing a clear basis for choice between the four alternatives.
- **Chapter 4** (Environmental Consequences) presents a detailed analysis of the consequences of implementing each alternative, including the direct, indirect, short-term, long-term, irreversible, irretrievable, and cumulative impacts.
- **Chapter 5** (Implementation and Monitoring) provides details regarding how and when the management actions and associated monitoring and implementation will occur. This chapter also discusses adaptive management and the “triggers” that will bring about a change in management actions.
- **Chapter 6** (Consultation and Coordination) provides information on how consultation was conducted, opportunities that were made available for public involvement, and paraphrased comments with BLM responses.

Guide to the Resource Management Plan and Environmental Impact Statement Process

The RMP/EIS is consistent with NEPA and Federal regulations (40 CFR 1500-1508). The major steps in the process are described below:

Notice of Intent to Plan (NOI) – BLM published a NOI in the *Federal Register* on August 7, 2001.

Scoping Period – The official 60-day scoping period began with the publication of the NOI and the November 2001 Newsletter requested public input in identifying resource issues and concerns, management alternatives, or other ideas in determining future land use decisions for the NCA RMP.

Draft RMP/EIS – The draft considers public and agency comments received during the scoping process, provides a description of the alternatives, describes the environment that would be affected, and assesses the potential impacts. A Notice of Availability (NOA) for the Draft RMP/EIS was published in the *Federal Register*.

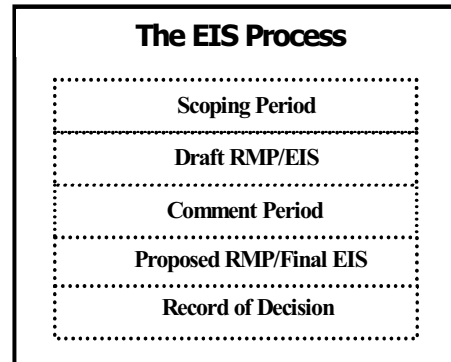
Comment Period and Public Hearings – The public and Federal, State, and local government agencies and American Indian Tribes may review and comment on the Draft RMP/EIS during a 90-day comment period. Opportunities for public involvement, including meetings, are further described in Chapter 6, Coordination and Consultation.

Proposed RMP and Final EIS – In this document (Proposed RMP and Final EIS), BLM assessed, considered, and responded to comments received on the Draft EIS. A NOA will be published in the *Federal Register* when the Proposed RMP/Final EIS is available.

Record of Decision (ROD) – The ROD is a separate and concise public record that identifies and describes the final BLM decision. The ROD addresses how environmental impacts and other factors were considered in the decision-making process.

The Final EIS provides a comprehensive evaluation of BLM's proposed management actions for the administration of public lands and natural resources in the NCA. A comprehensive RMP is needed because management actions share a common timing or geography with other management actions, thereby creating potential conflicts among various resource values and management actions.

Subsequent Environmental Assessments (EAs) will reference and adopt relevant information and goals from this broader EIS, thereby avoiding duplication of effort and streamlining NEPA analysis.



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VOLUME 1

DEAR READER LETTER

HOW TO READ THIS DOCUMENT

GUIDE TO THE RMP AND ENVIRONMENTAL IMPACT STATEMENT PROCESS

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The purpose of this Proposed Resource Management Plan/Final Environmental Impact Statement (RMP/FEIS) for the Snake River Birds of Prey National Conservation Area (NCA) is to provide land use direction for the Bureau of Land Management (BLM) within the NCA. The approved plan will provide the framework for making decisions about managing the natural and cultural resources, visitor use, development, and operations so that future opportunities and problems can be addressed effectively to meet the purposes of the NCA enabling legislation.

The Snake River Birds of Prey National Conservation Area (NCA) is located in southwestern Idaho, within a 30-minute drive of Boise and almost half of Idaho's population. It is located in Ada, Canyon, Elmore and Owyhee counties, and encompasses approximately 483,700 public land acres, extending 81 miles along the Snake River. The NCA includes the 138,000 acre Orchard Training Area used by the Idaho Army National Guard (IDARNG) for military training since 1953. Within the NCA boundary are approximately 41,200 State acres, 4,800 privately owned acres, 1,600 military acres, and 9,300 acres covered by water.

The NCA was established in 1993 by Public Law 103-64 (Appendix 1). Public activities and uses that existed when the NCA legislation was enacted are allowed to continue to the extent that they are compatible with the purposes for which the NCA was established – conservation, protection, and enhancement of raptor (birds of prey) populations and habitats.

The NCA contains the greatest concentration of nesting raptors in North America. About 700 raptor pairs, representing 16 species, nest in the NCA each spring, including golden eagles, burrowing owls, and the greatest density of prairie falcons in the world. Eight other raptor species use the area during various seasons.

The NCA is a unique habitat for birds of prey because the cliffs of the Snake River Canyon

provide ideal nesting sites, while the adjacent upland plateau supports unusually large populations of small mammal prey species. The NCA is noted for having one of the highest densities of ground squirrels ever recorded, and the Piute ground squirrel is a critical food source during late winter, spring, and early summer for many of the NCA raptor species – most notably prairie falcons. Since 1979 over 300,000 acres of upland shrub habitat has been lost to fire.

The NCA is managed by BLM under the concept of dominant use rather than multiple uses. This means that prior to authorizing uses; the BLM determines the compatibility of those uses with the purposes for which the NCA was established. Many historic uses that were occurring when the NCA was established have either already been analyzed or will be analyzed in this document.

Consultation with the Shoshone-Bannock and Shoshone-Paiute Tribes and public participation in the planning process began with publication of a Federal Register Notice of Intent (NOI) on August 7, 2001. Throughout the development of this RMP/EIS, the Tribes and public have played an active role with the understanding that this involvement will result in a RMP that provides for better, more responsive land stewardship. The Tribes and public not only helped identify issues to be addressed as required by National Environmental Policy Act (NEPA) and implementing Council on Environmental Quality (CEQ) guidelines, but also helped in the analysis of those issues and the development of the Desired Future Conditions (DFC) for the NCA. The DFCs are directly responsive to the public issues. Participation was also used in (1) review of the data available for the analysis, (2) preparation of the alternatives, and (3) development of route designation criteria.

Owyhee County and the IDARNG cooperated in the development of the RMP/EIS. A cooperating agency is one that has jurisdiction or special expertise in the area covered by the RMP. These organizations provided staff that



worked directly as members of BLM's interdisciplinary (ID) planning team. Owyhee County representatives provided information about management issues of relevance to the County. The IDARNG, which conducts military training activities in the 138,000 acre Orchard Training Area, provided information regarding the National Guard's use of the area, including their environmental management programs.

In response to public issues, the following resources and uses have been addressed.

Resources

- Air Quality
- Cultural and Tribal Resources
- Fish and Wildlife
- Geology
- Paleontology
- Special Status Species (plants and animals)
- Soil Resources
- Vegetation (Invasive Plant Species/Fuels Management, Rangelands, Noxious Weeds, Riparian and Wetlands)
- Visual Resources
- Water Resources

Resource Uses

- Lands and Realty
- Livestock Grazing
- Minerals
- Recreation
- Transportation and Access
- Utility Corridors and Communication Sites
- Military Training (IDARNG)

Other

- Areas of Critical Environmental Concern
- Fire Suppression
- Wild and Scenic Rivers
- Hazardous Materials
- Social and Economic Conditions

The heart of an environmental impact statement (EIS) analysis is the alternatives section.

The number of alternatives is determined by several factors, including the scope of the project, issues to be resolved, project sensitivity, and planning criteria.

The first step in developing the alternatives was to identify the issues and management concerns that needed to be resolved. Management issues may stem from new information or changed circumstances, the need to address environmental concerns, or the need to assess an appropriate mix of allowable uses.

After identifying issues, planning criteria were developed (Appendix 2). Planning criteria primarily identify the legal, regulatory, and policy authorities and requirements that direct or limit BLM's ability to resolve issues. A BLM manager can also identify additional factors to guide decision-making, analysis and data collection during planning. Overall, the planning criteria help to:

- Describe the general and resource-specific standards, rules and measures that constrain or shape decisions;
- Ensure an RMP is tailored to the issues; and
- Identify factors to be considered for data gathering, analysis, and decision making.

The next step in the process was to identify the DFC, which are expressed in terms of goals and standards. The DFC are the same across all alternatives (Figure S.1), and as such, become the goal for future management of the public lands. This common goal helps to define the limits of what constitutes a reasonable range of alternatives. All alternatives, other than current management, should achieve the DFC to some degree.

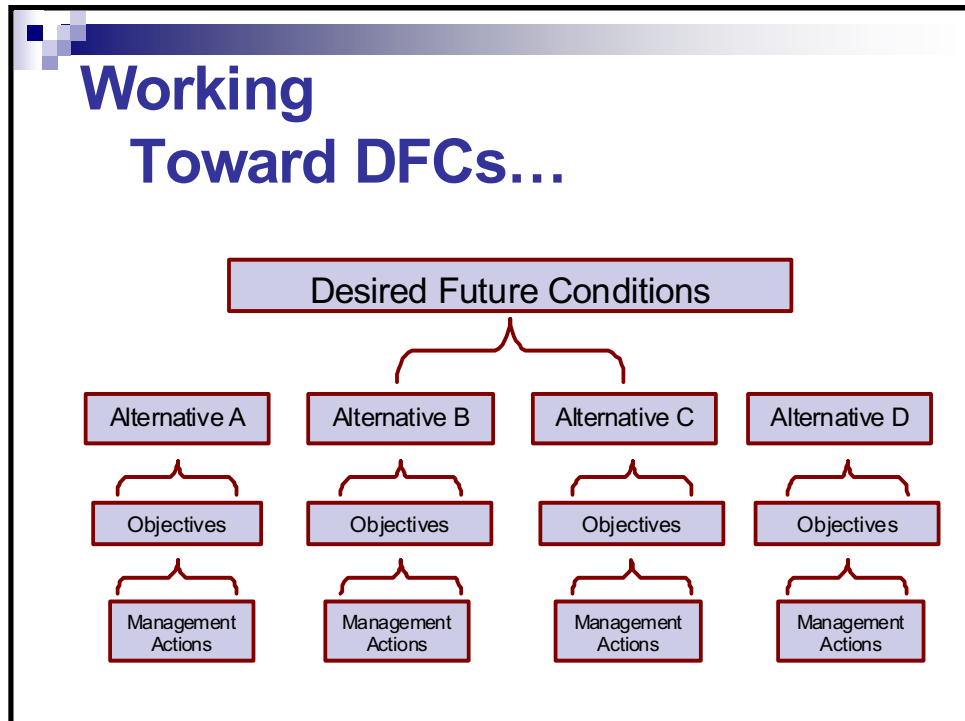
Objectives are expressions of the desired result of management actions. Objectives and management actions are described so that expected results are clear, specific, measurable, realistic, and have a direct tie to achieving the DFC.



Alternative Summary: The basic goal for developing alternatives is to prepare different combinations of management actions to ad-

dress management issues, concerns, and conflicts.

Figure S.1. Relationship Between DFC and Alternatives.



Each alternative should meet the requirements of the enabling legislation and will address the DFC. Although all alternatives emphasize protection of the remaining shrub communities, the alternatives differ in the timing and extent of habitat restoration.

Alternative A – Current Management (No Action)

Theme: The habitat restoration program would be driven primarily by emergency fire rehabilitation processes, resulting in a minimal increase in the acreage of shrub communities. Current uses would be accommodated, but could be moderated based on new laws, regulations, or policies.

Key elements include:

- Protecting remaining shrub communities through continued wildfire suppression; however, approximately 50,000 acres of

remnant shrub habitat could be lost to wildfire in the next 20 years.

- Restoring of up to 10,000 acres of shrub habitat.
- Reducing hazardous fuels on up to 10,000 acres.
- Continuing IDARNG military training activities at current levels and in current locations.
- Managing livestock grazing through the Idaho Standards and Guidelines (S&Gs) process (Appendix 3) while accommodating restoration and fuels management projects.

Alternative B

Theme: Emphasis is on restoring a moderate amount of raptor and raptor prey habitat in addition to those areas affected by emergency fire rehabilitation and fuels management projects. This alternative would accommodate



recreation, military and commodity uses that are compatible with the purposes of the NCA.

Key elements include:

- Protecting remaining shrub communities through wildfire suppression; however approximately 30,000 acres of remnant shrub habitat could be lost to wildfire.
- Restoring 50,000 acres of shrub habitat.
- Completing 70,000 acres of fuels management projects.
- Restricting or modifying IDARNG training activities including the restriction of off-road vehicle (ORV) maneuver training on 22,300 acres and limiting use to non-shrub shrub communities in the remaining maneuver areas to protect existing shrub communities and providing 20,400 additional acres to enhance military maneuver training.
- Managing livestock grazing through the S&G process with priority placed on enhancing the success of vegetation treatment efforts.

Alternative C

Theme: This alternative emphasizes the restoration and rehabilitation of all non-shrub areas outside the IDARNG training area to improve raptor and raptor prey habitat. To support this level of habitat restoration, recreation and military training would be substantially restricted, and livestock grazing preference would be eliminated.

Key elements include:

- Protecting remaining shrub communities through aggressive wildfire suppression; however, it is anticipated that about 15,000 acres of remnant shrub habitat could be lost to wildfire.
- Restoring 130,000 acres of shrub habitat.
- Completing 100,000 acres of fuels management projects.
- Restricting or modifying IDARNG training activities including the restriction of ORV maneuver training on 18,400 acres

and limiting use to non-shrub communities in the remaining maneuver areas and removing 3,900 acres of special status plant habitat from the OTA.

- Removing public land grazing except for fuels reduction projects.

Alternative D – Proposed Alternative

Theme: This alternative emphasizes the restoration and rehabilitation of all non-shrub areas outside the OTA to improve raptor and raptor prey habitat, while imposing only moderate restrictions on recreation, military training, and commercial uses.

Key elements include:

- Protecting remaining shrub communities through aggressive wildfire suppression; however, it is anticipated that about 30,000 additional acres of remnant shrub habitat could be lost to wildfire.
- Restoring 130,000 acres of shrub habitat.
- Completing 100,000 acres of fuels management projects.
- Restricting or modifying IDARNG training activities including the restriction of ORV maneuver training on 22,300 acres and limiting use to non-shrub communities in the remaining maneuver areas to protect existing shrub communities and providing 4,100 additional acres to enhance military maneuvers.
- Managing livestock grazing through the S&G process with priority placed on enhancing the success of vegetation treatment efforts.

Impacts

Potential environmental, social, and economic consequences of the alternatives are addressed for various natural resources and land uses, including livestock grazing and cultural resources. The summary table at the end of Chapter 3 (Alternatives) provides a summary of impacts related to all four alternatives, and Chapter 4 contains detailed analyses of these impacts.



Table S.1. Comparison of Resource Allocation by Alternative (Acres Unless Indicated Otherwise).

Resource	Area or Management Action	Alt A	Alt B	Alt C	Alt D
Fish and Wildlife	Riparian restored (miles)	1	20	40	40
	Trees planted		100	100	100
	Pond constructed	0	20	20	20
	Wetland treated	100	100	100	100
IDARNG	Entire Orchard Training Area	138,500	158,900	134,600	142,600
	Impact Area	53,000	53,000	53,000	53,000
	Maneuver Areas	85,500	105,900	81,600	89,600
	Excavation sites	5	105	5	55
Lands and Realty	Avoidance Area	43,000	105,000	159,000	43,000
	NCA (acres – boundary change)	483,700	483,700	473,765	494,845
Livestock Grazing	Closed (total acres – rounded)	3,900	8,600	483,700	7,300
	Priest Ranch (closed)	340	340	0	340
	TWMA (closed)	320	320	0	320
	Gold Isle (closed)	150	150	0	150
	Battle Creek Past 8B (closed)	3,040	3,040	0	3,040
	Kuna Butte (B - closed; D – intermittent)	0	3,400	0	3,400
	Halverson Bar (seasonal)	0	1,300	0	1,300
Recreation	C.J. Strike Reservoir SRMA	5,500	20,000	20,000	20,000
	Oregon Trail SRMA	3,300	7,900	7,900	7,900
	Owyhee Front SRMA	6,300	6,300	6,300	6,300
	Snake River BOP SRMA	50,100	0	0	0
	Snake River BOP NCA SRMA	483,700	0	0	0
	Snake River Canyon SRMA	0	22,300	22,300	22,300
	Canyon Shooting Closure	23,500	23,500	23,500	23,500
	Plateau Shooting Closure	37,700	37,700	37,700	37,700
	VRM I	10,300	0	0	0
	VRM II	21,400	0	187,200	54,100
	VRM III	205,700	308,000	219,800	298,600
	VRM IV	246,300	175,700	76,700	131,000
	W&SR (suitable miles) recommended for designation	0	22	49	0
	Transportation	Limited to Designated	431,200	426,400	419,600
Closed (total of below-rounded)		1,600	6,400	13,200	4,400
Bigfoot Bar (closed)		0	0	4,850	0
Cove (closed)		0	1,600	1,600	1,600
Guffey Butte (closed)		0	2,000	2,000	0
Halverson Bar (closed)		1,300	1,300	1,300	1,300
Tick Basin (closed)		0	0	1,900	0
TWMA (closed)		320	320	320	320
Wees Bar (closed)		0	1,200	1,200	1,200
The OTA Impact Area is closed to all public use and therefore not designated.		50,900	50,900	50,900	50,900



Table S.1. Comparison of Resource Allocation by Alternative (Acres Unless Indicated Otherwise).

Resource	Area or Management Action	Alt A	Alt B	Alt C	Alt D
Upland Vegetation	Fuels management	10,000	70,000	100,000	100,000
	Fuel breaks (miles)	136	144	148	148
	Restoration	10,000	50,000	130,000	130,000
	Weeds treatments	600/yr	2,500/yr	4,000/yr	4,000/yr
	Research	0	1,000	5,000	5,000
	Potential loss of shrub cover	50,000	30,000	15,000	30,000
Utility & Communication Corridors	Utility corridors (number)	1	2	2	1

Table S.2. Comparison of How Objectives Are or Are Not Met (by Alternative).

Resource	Alt A	Alt B	Alt C	Alt D
Air Quality	Met	Met	Met	Met
Cultural & Tribal Resources	Met	Met	Met	Met
Fish & Wildlife	Partially Met	Met	Met	Met
Idaho Army National Guard	Met	Met	Not Met	Met
Lands & Realty	Met	Met	Met	Met
Livestock Grazing	Met	Met	Not Met	Met
Mineral Materials	Met	Met	Met	Met
Recreation	Met	Met	Met	Met
Social & Economic Conditions	Met	Met	Met	Met
Special Status Animals	Partially Met	Partially Met	Partially Met	Partially Met
Special Status Plants	Not Met	Partially Met	Partially Met	Partially Met
Soil	Not Met	Partially Met	Partially Met	Partially Met
Transportation	Met	Met	Met	Met
Vegetation	Not Met	Partially Met	Partially Met	Partially Met
Visual Resources	Met	Met	Met	Met
Water Quality, Riparian & Wetland	Partially Met	Met	Met	Met



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1.1 INTRODUCTION

This document is the Final Resource Management Plan (RMP) and Environmental Impact Statement (EIS), which sets forth the future direction for the use and management of the Snake River Birds of Prey National Conservation Area (NCA). This Final RMP/EIS covers all public land within the NCA boundary, including the 138,000 acre Orchard Training Area, and addresses the direction set forth in the NCA enabling legislation (Appendix 1).

1.2 PURPOSE OF THE RMP

The NCA is managed in accordance with the Kuna and Bruneau Management Framework Plans (MFPs), and the Cascade, Jarbidge, and Owyhee RMPs. The 1996 NCA Management Plan is not a stand-alone land use plan, but rather a management plan composed of decisions carried forward from existing land use plans. The 1996 plan does not include legislatively required compatibility determinations for military training, grazing, and off-highway vehicle (OHV) use. In addition, the plan does not address in sufficient detail current Bureau of Land Management (BLM) policy for other program areas such as fire management and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (S&Gs) (Appendix 3) 1. In the years since the RMPs and the Management Plan were approved, new laws, regulations and policies have created additional considerations that affect the management of public lands. As a result, some of the decisions are no longer valid, or have been superseded by requirements that did not exist when the plans were prepared. These changes in management policy, coupled with new issues and concerns, and increasing demands on NCA resources drive the need for a comprehensive plan that provides clear direction to both BLM and the public.

The new RMP will provide the BLM with a stand-alone comprehensive framework for managing public lands in the NCA over the next 20+ years to meet the purposes of the enabling legislation (16 USC 460iii-2; 107 Stat. 304) (Appendix 1):

“...to provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith, and of the scientific, cultural, and educational resources and values of the public lands in the conservation area....”

The NCA’s enabling legislation and the management principles contained in the Federal Land Policy and Management Act (FLPMA) will guide the land use decisions within the NCA. In addition, authorized uses must be determined to be compatible with the purposes for which the NCA was established [Section 3(a) of the NCA-enabling Act], as well as with the management guidance provided in Section 1(5) and Section 4(b) of the Enabling Act. The NCA Final RMP/EIS will also meet the requirement to review the management plan at least every five years, as stated in Section 4((a)(1)(B) of the Enabling Act. Based on the RMP’s compatibility determinations, some uses may be excluded or limited on certain lands to protect specific resource values or to minimize conflicts with other uses or users.

1.3 NEED FOR THE RMP

According to BLM’s planning manual (1610), land use plans guide management actions on the affected public lands. Land use plan decisions establish goals and objectives for resource management [i.e., Desired Future Conditions (DFC)], the measures needed to achieve the goals and objectives, and parameters for using public lands. They identify lands that are open or available for certain uses, including any applicable restrictions, and lands that are closed to certain uses. Land use plan decisions ordinarily are made on a broad scale and customarily guide subsequent site-specific implementation decisions. Among the issues and concerns needing to be addressed in the NCA are:



- Landscape-level changes in ecological condition caused by the loss of shrub habitat.
- The need to recognize the role of fire in the NCA and identify appropriate fire and fuels management.
- The expansion of invasive and noxious weeds contributing to landscape-wide changes in plant communities and ecological processes.
- The burgeoning human population in the surrounding area, which has increased recreation demands and related impacts.
- The management of special status species including slickspot peppergrass and Snake River snails.
- Locations and size of military training areas.
- Areas available for Livestock grazing.

Because of the increasing demand for use of public land, there is a compelling need to develop an RMP that ensures that:

- Management is more proactive about conserving, protecting, and enhancing raptor populations and habitats, including raptor prey populations.
- Authorized uses are compatible with the purposes for which the NCA was established.
- Resource uses are balanced, and are sustainable over the long-term.
- Increasing demand for a comprehensive transportation plan, including OHV use, is addressed.
- Sensitive species habitats are protected and enhanced.



1.4 PUBLIC PARTICIPATION

BLM published the Federal Register Notice of Intent (NOI) to plan in both the NCA and the Bruneau Planning Area on August 7, 2001 and in November entered into an interagency agreement with the U.S. Institute for Environmental Conflict Resolution (Institute). The purpose of this partnership was to assess opportunities for collaboration in the development of two RMPs (including the NCA), suggest strategies based on this assessment, and provide neutral facilitation resources. Under the agreement, the Institute contracted the services of two neutral, private practice facilitators from the Boise area to design and facilitate public scoping meetings, and cooperatively develop and implement an all-inclusive collaborative strategy.

The Institute's assessment report, published in June 2002 and entitled *Assessing Prospects for Collaborative Planning and Public Participation for the Bruneau and Snake River Birds of Prey NCA Resource Management Plans*, identified the following seven principles for collaboration based on key themes heard during the assessment interviews:

1. Realistically match internal resources to commitments.
2. Identify what is fixed and what is open for input and influence by the public.
3. Be clear and consistent.
4. Educate about the RMP process and how it links to future site-specific decisions.
5. Link to national strategies and policies in order to focus on what is open for discussion and minimize debate on issues that are already decided.
6. Follow through on commitments, both procedural and substantive.
7. Be publicly accountable for seeking input from the public.

Based on preliminary findings from the assessment, the facilitators and BLM designed a process consistent with its seven principles for collaboration. This process was documented in *A Collaborative Process for Resource Man-*



agement Planning (April 2003). Generally, this iterative process followed a pattern of:

- Interdisciplinary (ID Team) team product development and internal agency review.
- Review from Boise District Resource Advisory Council (RAC).
- Review from Federal, State, local agencies, and cooperating agencies (Intergovernmental Coordination Group (ICG)).
- Formal government-to-government consultation with American Indian Tribes.
- Review and comment from the general public.
- Interdisciplinary team revisions based on this feedback.

The RAC is a 15-member advisory panel, which provides advice and recommendations to the BLM on resource and land management issues. Membership includes a cross section of Idahoans from the southwestern portion of the State representing energy, tourism and commercial recreation, environmental, and archeological or historic interests as well as elected officials, Tribes, and the public-at-large. Council members are selected for their ability to provide informed, objective advice on a broad array of public lands issues and their commitment to collaboration in seeking solutions to those issues. Members are appointed to three-year terms and may be reappointed to consecutive terms. Council members must be Idaho residents.

The ICG is a group of intergovernmental individuals meeting to increase two-way information sharing about natural resource guidance, documents, data and initiatives to ensure that information is considered, and to assist in resolving inconsistencies between Federal and State/local plans.

Section 202(c)(9) of FLPMA, requires BLM to provide for public involvement of other Federal agencies, and State and local government officials in developing land use decisions for public lands, including early public notice of proposed decisions that may have a significant effect on lands other than BLM administered Federal lands. Section 202(c)(9) of FLPMA also requires, to the extent practical, that BLM keep itself informed of other Federal agency and State and local land use plans, assure that consideration is given to those plans that are germane to the development of BLM land use plan decisions, and assist in resolving inconsistencies between Federal and non-Federal plans.

Meetings with individuals and interest groups occurred throughout the process. It should be noted that the interdisciplinary team included two cooperating agencies, the Idaho Army National Guard (IDARNG) and Owyhee County. Table 1.1 below lists the collaborative “events” associated with this planning process.



Table 1.1. Collaborative Events for NCA Resource Management Plan.

Topic (Number of Meetings)	Audience	When
Scoping (6) and stakeholder comment	All stakeholders (Tribes through consultation)	Nov 2001 – Jan 2002
Collaborative Process/ Issue Development (4)	All stakeholders (Tribes through consultation)	July 2002
Review and comment on issues	All stakeholders (Tribes through consultation)	July – August 2002
Issue Refinement (1)	ID Team/RAC/ICG with public observation and input	September 2002
Review and comment on Planning Criteria	All stakeholders (Tribes through consultation)	Fall 2002
Desired Future Conditions (3)	All stakeholders (Tribes through consultation)	December 2002
Data Fair (2 that included NCA)	All stakeholders	June 2003
Objectives and Management Actions (5 for NCA)	ID Team/RAC/ICG with public observation and input (Tribes through consultation)	Sept – Nov 2003
Preliminary Draft Alternatives (3 for NCA)	All stakeholders (Tribes through consultation)	June – July 2004
Draft Alternatives --- Traveling Coffee Shops (3 for the NCA)	All stakeholders/RAC/ICG (Tribes through consultation)	June – July 2005
Draft RMP – Preferred Alternative (4)	All Stakeholds/RAC/ICG (Tribes through consultation)	June 2006
Response to Comments on the Draft RMP (numerous) – Phone conversations and briefings	Organizations/RAC/ICG/ Congressional Staff (Tribes through formal consultation)	Jan – Mar 2007

1.4.1 Scoping/Issue Development

In early November 2001, nearly 600 newsletters were sent to individuals, agencies, and organizations informing them of the planning effort for the NCA and the adjacent Bruneau Planning Area, the location of public meetings, and the opportunity to comment. In addition, newspaper advertisements and press releases notified the public of the project, announced the five open houses (held November 2001 – January 2002), requested public comment, and provided contact information. Because winter weather conditions minimized attendance, a sixth meeting in Boise was added to the schedule, and additional news releases and advertisements were published.

This first round of open houses provided an opportunity for the public to receive information, ask questions, and provide input regard-

ing resources, resource uses, and management issues for the NCA. In addition to BLM and Boise District RAC representatives, a total of 128 people attended the open houses. Those attending represented a diverse set of interests in public land and resource management. In July 2002, a second round of public meetings provided public feedback on the issues identified earlier. Approximately 90 people attended 4 meetings.

In response to feedback from the July 2002 meetings, the BLM ID Team, RAC and ICG representatives participated in a September 10, 2002 workshop to review the latest public feedback and finalize the issues. Approximately 45 people participated in the workshop, including several members of the public who observed the process and provided comment. Once finalized, the issues were published in a



newsletter and posted on the BLM planning website (www.id.blm.gov).

Throughout the scoping and issue identification process, 52 individuals and/or organizations provided 1,031 distinct written scoping comments for both the NCA and Bruneau Planning Areas. These comments were analyzed and sorted according to topic and planning area. These comments were then posted on the BLM planning website.

1.4.2 Planning Criteria

BLM provided a synthesis of the Federal laws, and department/agency regulation and policy, which set the regulatory sideboards for the RMP. After tribal consultation and public review, the ID team incorporated feedback where appropriate and developed the planning criteria (Appendix 2) which were mailed with a newsletter and were posted on the BLM planning website.

1.4.3 Desired Future Conditions (DFC)

DFCs express the long-term goals for the NCA and are grouped by resource and resource use. The ID team, along with the RAC and ICG, developed preliminary DFC with tribal consultation and an opportunity for public review and comment. In addition to formal tribal consultation, three public meetings were held in December 2002 for this purpose. Feedback was incorporated where appropriate and the revised DFC were distributed by newsletter and posted on the BLM planning website.

1.4.4 Data Fair

BLM specialists assembled data and maps for specific resource areas within the NCA, and met with the public in an open house format in June 2003. The purpose of the open house was to share information the BLM intended to rely upon for analysis, and to invite the public to provide comments on BLM data, or share data of their own. BLM data and maps were revised appropriately based on feedback received during and following the data fairs.

1.4.5 Objectives and Management Actions

BLM ID team, RAC RMP subcommittee, and the ICG participated in a series of small group workshops in September and October 2003 to develop preliminary objectives and management actions. A large workshop was then convened with these same groups in November 2003 to integrate the preliminary objectives and management actions as a first step in developing preliminary draft alternatives.

1.4.6 Preliminary Draft Alternatives

The ID team took the product from the large group workshop and refined the information into preliminary draft alternatives. Following agency review, the BLM held three workshops in August and September 2004 to share the overall concept of the preliminary draft alternatives, as well as offering specific information on the key features of each alternative by resource and resource use. The ID team revised the preliminary draft alternatives based on feedback and these are detailed in Chapter 3 Alternatives. After the preliminary draft alternatives were developed, the Tribes were consulted and briefings were held with the RAC and ICG to identify inconsistencies with other planning efforts. In addition, a series of “traveling coffee shops” were held so interested organizations and individuals could see how their comments were incorporated and to ask questions relative to the alternatives. Upon distribution of the Draft RMP/EIS, BLM sponsored four community meetings to answer questions about management proposals and analysis. In addition to these community meetings, BLM held a field tour of the NCA for RAC and ICG members and also offered a field tour for the public so interested individuals could look at existing resource conditions and discuss the proposed management activities.

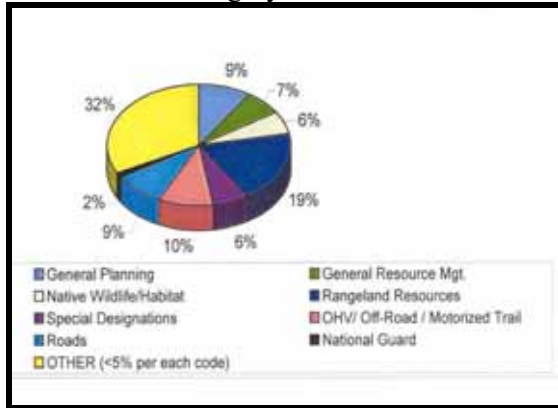
1.5 PLANNING ISSUES

From the 1,031 separate and distinct comments received as a result of the scoping process, BLM identified nine management issues that have been addressed in this RMP/EIS. These issues were validated with the public through additional public meetings and work-



shops. Figure 1.1 shows the distribution of comments by category.

Figure 1.1. Percentage of Comments by Category.



In addition to the issues agreed to with the public and RAC, Owyhee County and the Shoshone-Bannock and Shoshone-Paiute American Indian Tribes also provided their perspectives, which are shown on Table 1.2; no changes have been made to the wording. (Note: items in bold appeared that way when submitted).

Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
Issue 1: Vegetation			
<ul style="list-style-type: none"> Loss of native shrub/perennial bunchgrass habitat has resulted in a decline of the raptor prey base, influencing some raptor populations. Livestock grazing, military training and other human uses have an effect on soil stability and watershed health. Existing land use plans do not adequately address the protection, enhancement and restoration of native plant communities (sagebrush, salt desert shrub) that provide unfragmented core habitat for dependent plant and animal species. 	Same as public.		<ul style="list-style-type: none"> The natural inhabitant needs to be mentioned. The comments provided address Ranching, Recreation, Military activities, etc., the BLM is an agency that is responsible for habitat, and there is no mention of protection of habitat for the natural inhabitant. The need for maintaining the natural vegetation for deer, antelope, rabbits, birds, and other animals needs to be addressed at the top of the list, along with areas that need to be maintained for gathering of food and medicinal plants (reserved rights).



Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
<ul style="list-style-type: none"> • Livestock grazing, recreation, and other uses may be impacting water quality and riparian habitat conditions. • Fire management, including fuels treatments, need to protect the existing native habitats, wildland, and urban and rural interfaces. Fire use and other management tools need to be considered for enhancement and restoration of native plant communities. Rehabilitation considers use of native and adapted non-native plants as appropriate. 		<ul style="list-style-type: none"> • Describe the management of wildfires and how they would be contained, post-fire restoration plans, and what resources would be used to contain wildfires. 	
Issue 2: Socio-Economic			
<ul style="list-style-type: none"> • Current land use and recreation trends may affect traditional uses and values. <ul style="list-style-type: none"> ○ How does BLM manage public lands for sustainable use and resource health in order to maintain the custom, culture and economic health of local communities? ○ How can emerging activities and traditional uses be managed in order to maintain the sustainable use and resource health that supports local economies? 	<ul style="list-style-type: none"> • Current land use and recreation trends may affect traditional uses and values. <ul style="list-style-type: none"> ○ How does BLM manage <i>the allowable uses of</i> public lands for sustainable use and resource health in order to maintain the custom, culture and economic health of local communities? <p>All other issues are the same as public.</p>		<ul style="list-style-type: none"> • Current land use and recreation trends may affect traditional uses and values. (Traditional use (those protected by law) • Treaty Tribes have reserved rights, which reserved hunting, fishing and gathering rights in their usual and accustomed places, which include many areas. • There are two treaties that were not ratified, and aboriginal land title was not extinguished, and Tribes have not relinquished their rights. • BLM must manage people related activities more closely; people are the greatest threat to the environment. Recreation, such as use of OHVs,

Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
<ul style="list-style-type: none"> • Recreational use of public lands increases counties’ infrastructure costs. • What actions can BLM take to minimize adverse effects on local communities and governmental entities? 			<p>hunting, and grazing all have to be managed more strictly, and OHVs must be prohibited from some areas and restricted in others. The Owyhee Front provides more than enough space for OHV and other recreations.</p> <ul style="list-style-type: none"> • The values of the Native American people are protected by Federal laws, such as the American Indian Religious Freedom Act, E.O. 13007 (Sacred Sites), NAGPRA, and others, which were developed to protect Native American rights, traditions and values. We must not ignore or diminish Native American rights and values and focus only on the values and needs of ranchers, recreation and environmentalists. • Many of our people make a living tanning buckskin and manufacturing various arts and crafts. • Most of the wildlife including deer has declined and that has created a socio-economic impact to our people.
<p>Issue 3: Tribal and Cultural Values</p>			
<ul style="list-style-type: none"> • Historical, Tribal and cultural values may be affected by a variety of land use activities. • The Shoshone-Paiute and Shoshone-Bannock Tribes consider the area part of their aboriginal homelands and want to con- 	<p>Same as public</p>	<ul style="list-style-type: none"> • Describe the plan for the protection of cultural resources and traditional cultural properties that are of importance to the Tribes. Traditional cultural properties include but are not limited to plants, 	<ul style="list-style-type: none"> • Historical, Tribal and Cultural values may be affected by a variety of land use activities. Tribal values are deeply embedded in cultural, traditional and spiritual values. • The Shoshone-Paiute and Shoshone-Bannock Peo-



Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
<p>tinue to have access to the land for ceremonial and religious purposes, as well as hunting, fishing and gathering.</p> <ul style="list-style-type: none"> At times, current management conflicts with both tangible and intangible Native American interests; therefore, the RMP needs to address the protection of cultural resources and traditional cultural properties, including plants, wildlife, sacred places, water, etc. Tribal governments are sovereign nations, which have special status through treaties, statutes, and executive orders that must be honored and protected. 		<p>fish, wildlife, sacred places, water, etc.</p> <ul style="list-style-type: none"> Federal statutes such as the Native American Graves Protection Act (NAGPRA), National Historic Preservation Act (NHPA), American Indian Religious Freedom Act (AIRFA), Archeological Resources Protection Act (ARPA) and others, needs to be considered. 	<p>ple consider the area a part of their homelands (the word “consider” needs to be removed. Tribes “would like to” continue to have access to the land for ceremonial and religious purposes, as well as hunting, fishing and gathering (these activities are guaranteed by law and treaties)).</p>
Issue 4: Recreation			
<ul style="list-style-type: none"> Demand for recreational opportunities in SW Idaho is increasing. There is a need to manage recreation use in a manner compatible with the protection and enhancement of raptor populations and their habitats. BLM needs to provide reasonable recrea- 	<ul style="list-style-type: none"> Same as public issue There is a need to provide for recreation use, through development of and implementation of effective planning and management strategies, while addressing the associated impacts to other resources and conflicts with other uses. BLM needs to provide reason- 	<ul style="list-style-type: none"> Elimination of unnecessary roads should be considered and restored to favorable habitat for area wildlife. This would also aid in the recovery of the endangered species that inhabit the area. There should also be a limit to areas where passenger vehicles and all-terrain vehicles are allowed for travel. Valuable vegetation shouldn't have to be destroyed by unnecessary vehicle traffic. 	<ul style="list-style-type: none"> Recreation must be closely managed, restrictions placed on certain recreational activities, and totally banned in certain areas with respect to the environment and wildlife.



Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
<p>tional access consistent with private property rights and a range of recreational opportunities.</p>	<p>able recreational access consistent with private property rights and a range of recreational opportunities. <i>However, reasonable recreational access does not include condemnation of private property in order to provide access.</i></p> <p><i>Recreation use must be managed in such a way as to be compatible with the protection and enhancement of raptors population and their habitats.</i></p>		
Issue 5: Grazing			
<ul style="list-style-type: none"> • Livestock grazing is an important component of multiple use management. • Livestock grazing practices need to be compatible with a sustainable environment for vegetation, wildlife and fish as well as providing sustained economic benefit to local communities. 	<ul style="list-style-type: none"> • Livestock grazing is an important component of multiple use management <i>and sustained economic benefit to local communities.</i> • <i>Livestock grazing practices are complementary to and/or compatible with a sustainable environment for vegetation, wildlife and fish.</i> 	<ul style="list-style-type: none"> • Livestock grazing needs to be carefully avoided in areas where culturally significant sites are located. Cattle can do a significant amount of damage to the vegetation and cultural resources if it isn't carefully managed. Overgrazing of livestock is an issue that should be considered. 	<ul style="list-style-type: none"> • Add “Cultural/traditional survival of Native American communities as provided by treaties and various laws. (Grazing is a human impact, livestock were brought by people).
Issue 6: Wildlife			
<ul style="list-style-type: none"> • Is management of the NCA consistent with the protection and enhancement of raptor populations and their habitat? 	<p>Same as public</p>	<p>The anadromous fisheries of the Snake River are an important historic cultural resource to the Shoshone Bannock Tribes. Restoration of this resource is</p>	<ul style="list-style-type: none"> • Reduce human activities such as grazing and recreation and riparian and upland habitat will revive on its own if given a chance.



Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
		important to the tribal cultural heritage.	
Issue 7: Land and Realty			
<ul style="list-style-type: none"> The planning area consists of scattered tracts of intermingled ownerships and a confusing boundary which presents challenges for management and use of public resources. Purchases and exchanges should consider environmental, cultural, economic and social resource values. An increasing demand for road, utility and communication services impacts public lands and users. Where can utility corridors be located to prevent or lessen resource degradation caused by proliferation of rights-of-way? 	<ul style="list-style-type: none"> The planning area consists of scattered tracts of intermingled ownerships including Federal, private and State lands which present challenges for management and for effective use of public, private and State resources. <p>The remainder is the same as public issues.</p>		<ul style="list-style-type: none"> Land sales and exchanges should be approved by the Tribes each time any lands are taken out of Federal ownership – tribal (reserved) rights are diminished. A thorough cultural resource inventory must be conducted and consultation with Tribes must be initiated and completed which may reveal TCPs, sacred sites, and other important areas.
Issue 8: Special Designations			
<ul style="list-style-type: none"> Special designations, i.e., ACEC, WSA, and RNA, proposed for the protection of natural and cultural resources may impact current uses and conditions. Special designations need to be monitored to see if the objectives are being met. 	<ul style="list-style-type: none"> Same as public <p>Special designations need to be monitored to see if the objectives are being met and to quantify</p>		<ul style="list-style-type: none"> Special designations need to be monitored and laws and regulations need to be enforced with all violators prosecuted.



Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
	<p><i>the impacts to other uses of the area. They should only be imposed when the resource area or values under consideration meets statutory criteria and clearly require additional protective management that could not be implemented without special designations.</i></p>		
Issue 9: Idaho Army National Guard			
<ul style="list-style-type: none"> • Military activities need to be conducted in a way that is consistent with the protection and enhancement of raptor populations and their habitat. • BLM may receive future requests to authorize new types or increased levels of use. • Areas potentially affected by hazardous materials or unexploded ordnance should be evaluated for possible withdrawal to the Department of Defense. • A withdrawal would not change the use of the area, but would transfer the liability for clean-up and remediation to the agency responsible for the problem. 	Same as public.		<ul style="list-style-type: none"> • The Tribes are working closely with the Idaho Army National Guard. • Air Force activities have an impact on the entire area underlying their Military Operations Area (MOA), which includes, but is not limited to, noise, dropping of chaff and airplane accidents (which may destroy sacred sites or other important areas). Impacts may intensify as other aircraft, such as the F22 Raptor, are introduced to the MHAFB. (Note: Although there are MOAs near the NCA there are none within the NCA)



Table 1.2. Relevant Issues Raised During Scoping.

Public, RAC and ICG	Owyhee County	Shoshone-Bannock	Shoshone-Paiute Tribes
<p>Tribal Conclusion:</p> <ul style="list-style-type: none"> • Tribes understand and respect the multi-use concept, but do not agree with economics and curiosity of science being the driving force while wildlife, habitat, archaeological sites, tribal traditions, values, and reserved rights are diminished. Tribal rights are protected under the U.S. Constitution, Treaties, mandates, policies, and court decisions – all Federal agencies are mandated to protect these rights. • Tribes recognize that all things have a spirit and all things are connected. When a resource is removed or harmed it has a rippling affect, and other resources become sick and eventually disappear. • The greed driven need to harvest all Natural Resources through activities such as mining, timber harvest, grazing and hydro-electric dams and wind generation has impacted our environment to the point that many of the natural inhabitants are threatened or extinct, we must ask ourselves, “what are we leaving for our children?” <p><i>The planning area is located in the aboriginal use area of the Shoshone and Bannock people in which the Tribe maintains treaty rights under the Fort Bridger Treaty of 1868. The Tribe is concerned if treaty rights would be affected under this management plan.</i></p>			

A number of public comments raised issues concerning laws, regulations, or actions which are either beyond the scope of the RMP/EIS; inconsistent with laws, regulations, or policy; or are more appropriately addressed by an implementation plan. Examples of comments which are beyond BLM’s authority include:

- There should be no wilderness – *Wilderness designations are made by Congress; BLM only makes recommendations.*
- Reduce shooting restrictions on ravens and crows to reduce predation on nesting birds, like pheasants – *The Idaho Department of Fish and Game (IDF&G) determines which animals are allowed to be hunted or shot.*
- None of the rivers and streams should be considered for Wild and Scenic River designation – *BLM is required to consider Wild and Scenic River eligibility and suitability.*

Comments outside the scope of the RMP because they are either implementation decisions or are too specific:

- Fix the fence along Shaw Lane.
- Provide better trail markers.

Comments that were either not an issue, or could not be addressed in an RMP:

- Raptors are killing good birds.
- Fires create jobs.
- Use common sense when making OHV use decisions.
- BLM should have motorized recreation planners on the interdisciplinary team and establish a motorized recreation advisory board.

While BLM planning authority is limited to the lands within the NCA, the RMP/EIS will address the need for boundary changes to enhance the public’s ability to use the NCA and BLM’s ability to manage the area.

Many comments like those presented above will be addressed in future implementation plans or in the monitoring and implementation Chapter 5 of this document. The BLM has saved all comments and will use those in future planning efforts and/or day-to-day management.

In August 1980, the Council on Environmental Quality (CEQ) directed that Federal agencies must assess the effects of their actions on farmland soils classified as prime or unique by



the Natural Resource Conservation Service (NRCS) of the U.S. Department of Agriculture (USDA). There are no prime or unique farmlands in the NCA; therefore, the topic of prime and unique farmland was dismissed as an impact topic.

The final issues carried forward are within the scope of the RMP and are within BLM authority. These issues can all be affected either directly through BLM actions or indirectly through management of the natural resources.

Other resources or resource uses that were not identified as issues during the scoping process and are still discussed, although to a lesser degree, include: Geology, Paleontology, Hazardous Materials and Environmental Justice.

1.6 DESIRED FUTURE CONDITIONS AND STANDARDS FOR THE NCA

BLM, after consultation with the Tribes and with the assistance of the RAC, ICG, public and Cooperators (IDARNG and Owyhee County), developed the Desired Future Conditions (DFC). These DFC are the goals that specifically address the issues and perspectives identified by the public and others and are generally broad statements. DFCs describe the future condition of resources and/or land uses that BLM and the public identified as issues or concerns during the scoping process. The DFC does not, however, describe the actions needed to attain those conditions. The conditions are expressed in terms of DFC and standards. DFC aid BLM in identifying actions that will most effectively address unsatisfactory resource conditions as required by laws and regulations, national policy (i.e., BLM Strategic Plan Goals), State Director guidance, and resource or social considerations. The DFCs remain constant across all alternatives. Objectives and management actions, which were developed to meet the DFCs, may vary across alternatives.

Standards are descriptions of physical, chemical and biological conditions required to maintain healthy ecosystems. In addition, there are goals that have been set by the BLM for spe-

cific programs. Collectively they form the vision for future management of the area.

The wording of the DFCs identified below remains as written at these meetings. It should be noted that DFCs were developed early in the process and since that time, wind energy developments have been determined to be incompatible with the NCA-enabling legislation. While this wording remains in the narrative below, there will be no wind energy developments in the NCA.

Resources and/or resource uses not identified as issues will still be managed and information regarding the resource or resource use can be found in Affected Environment Chapter 2 and/or Alternatives Chapter 3.

Resources:

1.6.1 Air Quality

Tied to National and State Guidance.

1.6.2 Cultural and Tribal

DFC:

- Cultural and historic resources would be protected, and past, present, and future traditions and practices would be preserved.

Standard:

- Protection would be provided through administrative and physical measures, education, interpretation, and special designations.

1.6.3 Fish and Wildlife (includes Special Status Animals)

DFC:

- The distribution, abundance, and quality of wildlife habitats would be maintained or improved, to provide food, cover, and space for healthy populations of game and non-game wildlife through the seasons as well as through various life stages.



- Distribution and condition of habitats would contribute to the long-term viability of federally listed and BLM sensitive species and to the resilience to environmental change.
- Raptor nest sites would be protected, maintained, and enhanced.

Standards:

- Quality upland habitats would consist of plant communities would be provided for animals by plant communities with shrub, forb, and grass diversity and cover appropriate to the site.
- Quality habitat for riparian-dependent animals would be provided by streams and wetlands with plant species diversity and structure appropriate to the site.
- Connectivity between habitats for fish and wildlife populations would be maintained or enhanced.
- The number of large trees would be increasing to enhance raptor roosting and nesting habitat.

1.6.4 Soil Resources

Tied to National and State guidance.

1.6.5 Vegetation

1.6.5.1 Upland and Special Status Plants

DFC:

Areas 1, 2 and 3 (See Management Map 1)

- The uplands would support healthy sagebrush and salt desert shrub communities, and would provide habitats to sustain or increase raptor and raptor prey populations.
- The uplands would provide habitats to increase the populations of shrub obligate animals.
- Habitat conditions would contribute to long-term viability of special status species.

- Desirable native and adapted non-native plant communities would show an upward trend in species diversity, productivity and structure.
- Noxious weeds would only be present in small isolated areas.
- Plant communities would show an upward trend in species diversity, productivity and structure.

Area 1 Specific

- Sagebrush and salt desert shrub communities would be the dominant vegetation type and would include a mosaic of multi-aged shrubs, forbs, and native and adapted non-native perennial grasses.

Area 2 Specific

- Sagebrush and salt desert shrub communities would increase and would include a mosaic of multi-aged shrubs, forbs, and native and adapted non-native perennial species.

Area 3 Specific

- Sagebrush and salt desert shrub communities would increase, but the area would remain largely dominated by cheatgrass and other exotic annuals.
- Fire would continue to be a function of cheatgrass-dominated areas.

Area 1 and 2 Specific

- There would be a decrease in the severity, frequency, and size of wildfires.
- A mosaic of multi-aged shrubs, forbs, and native and adapted non-native perennial grasses would be present.



Standards:

Areas 1, 2 and 3:

- Healthy native and adapted non-native plant populations would minimize the establishment of invasive and noxious weeds. New infestations of noxious weeds would be eradicated, and existing populations of noxious and invasive weeds would be managed to prevent invasions of weed-free areas.
- The population size and habitat quality of special status plants would be maintained and/or improved.
- Special status plants would continue to exist at their present locations.
- The distribution, abundance, and vigor of special status plant species would be maintained or improved.

Area 1 Specific:

- A mixture of early to late seral sagebrush and salt desert shrub/grasslands, needed for raptor and raptor prey habitat, would exist in various size blocks in well-distributed patterns across the landscape (including disjunct islands and corridors).

Area 2 Specific:

- Early to mid seral sagebrush and salt desert shrub/grasslands, needed for raptor and raptor prey habitat, would exist in smaller sized and less contiguous blocks compared to Area 1.

Area 3 Specific:

- Small, non-contiguous stands of early to mid seral sagebrush and salt desert shrub/grasslands, needed for raptor and raptor prey habitat, would be increasing in size and connectivity.

1.6.5.2 Vegetation – Riparian and Water Quality

DFC:

- Upland and riparian conditions would support water quality that is consistent with State of Idaho Water Quality Standards.
- Riparian areas would provide habitats to sustain or increase raptor populations.
- Riparian areas would provide habitats to sustain riparian obligate species, especially those that are special status species.

Standards:

- Native riparian plant species would be the dominant vegetation type.
- The population, size and habitat quality of special status plants would be maintained and/or increased.
- Desirable native and nonnative plant populations would minimize establishment of invasive noxious weeds.

1.6.6 Visual Resources

No Specific DFC – See Recreation.

1.6.7 Water Quality

No Specific DFC – See Riparian and Water Quality.

Resource Uses

1.6.8 Idaho Army National Guard

Areas 1 and 2

DFC:

- The Idaho Army National Guard would continue to administer military activities in the Orchard Training Area in a manner that is compatible with the NCA-enabling legislation.



Areas 1 and 2

Standard:

- Military activities would not adversely impact raptor and raptor prey habitats.

1.6.9 Lands and Realty

DFC:

- Public lands would be consolidated to facilitate land management.
- Administrative and public access to the public lands would exist where needed and where consistent with resource values.
- All major utility and transportation right-of-ways would be located in designated corridors, and all wind energy sites would be located within an identified right-of-way use area.
- Resource values on public lands would be protected to prevent loss of revenue due for the use of public lands.

Standard:

- Consolidation would be accomplished through a combination of land exchange, purchase, and donation.

1.6.10 Livestock Grazing

DFC:

- Forage would be made available to support ranching operations to the extent compatible with the NCA-enabling legislation.

Standards:

- Livestock grazing would not adversely impact habitat requirements of raptors and their prey base.
- Grazing management programs would be planned and scheduled to control the timing, intensity, and duration of grazing use to pro-

tect and/or enhance the ecological integrity of plant communities.

1.6.11 Recreation

DFC:

- A range of motorized, non-motorized, undeveloped and developed recreation opportunities would exist in a manner compatible with the NCA-enabling legislation.
- Environmental impacts and user conflicts would be reduced by improving public awareness of birds and their prey.

Standard:

- New recreation facilities that are compatible with the NCA purposes would be designed to protect the natural and scenic landscape values.

1.6.12 Renewable Energy

See Lands and Realty.

1.6.13 Transportation

See Recreation.

1.6.14 Utility and Communication Corridors

See Lands and Realty.

Other

1.6.15 Fire Ecology

See Vegetation.

1.6.16 Special Designations

DFC:

- Special or unique natural, historic, cultural, scenic, and recreational values would be protected through special designations as needed.

Standard:

- Special designations would be used for intensive management of unique resources.



1.6.17 Social and Economic Conditions

DFC:

- Consumptive and non-consumptive uses, determined to be compatible with the purposes of the NCA, would contribute to the socio-economic well being of the region.

Standard:

- No standard identified.

Chapter 3 (Alternatives) will show the objectives and management actions identified under each alternative to achieve the DFC. Remember, all alternatives are intended to achieve the DFC.

Objectives are meant to address the DFC for the various resources, are based on law and regulation, and reflect the projected direction of future public land management. Objectives play a major role in alternative development and identify specific desired resource conditions for a given area. Objectives generally have established time frames, as appropriate, for achievement and are usually quantifiable and measurable.
(SMART = Specific, Measurable, Attainable, Relevant, and Trackable)

1.7 LAWS AND REGULATIONS THAT INFLUENCE THE SCOPE OF THIS PROPOSED RMP AND FINAL EIS

BLM planning regulations (43 Code of Federal Regulations {CFR} 1610) require identification of planning criteria to guide development of RMPs. Planning criteria are the constraints, or ground rules, which guide and direct the development of the RMP. They influence all aspects of the planning process, including inventory and data collection, formulation of alternatives, estimation of effects, and ultimately the selection of a proposed alternative. They ensure that RMPs are tailored to the identified issues and that unnecessary data collection and analyses are avoided. Planning criteria are based primarily on standards prescribed by applicable laws, regulations, and agency guidance. They are also based on consultation with American Indian Tribes and coordination with public, other

Federal, State, and local agencies and government entities; and analysis of information pertinent to the planning area.

Appendix 2 presents the planning criteria for the NCA and identifies the laws, regulations and policies that form the basis for these criteria and are relevant to each of the resource topics discussed in this Proposed RMP and Final EIS.

1.8 RELATIONSHIP TO OTHER PLANS, POLICIES, AND PROGRAMS

The Final RMP considers various approaches to land use and management, some of which may represent competing interests for the same resource base. As previously described, the final RMP and EIS Record of Decision (ROD) will replace the existing MFPs and affected portions of the Cascade, Jarbidge, and Owyhee RMPs. It covers a broad area; addresses a wide range of programs, concerns, and resources; and must, therefore, function at a general level. Those decisions that were made in previous plans, which are still valid, have been carried forward.

The more specific actions required to attain the goals and outcomes defined in the Final RMP/EIS are accomplished through monitoring and implementation plans. These plans apply to specific program areas, projects, or operational and development strategies for specific areas of the NCA. Future implementation plans will use the goals and DFC defined in this document as their starting point. Implementation plans with potential to affect the environment will require formal analysis in compliance with the NEPA and related legislation, including the National Historic Preservation Act.

FLPMA requires that: *“the Secretary shall, to the extent he finds practical, keep apprised of, State, local, and tribal land use plans; assure that consideration is given to those State, local and tribal plans that are germane in the de-*



velopment of land use plans for public lands; assist in resolving to the extent practical, inconsistencies . . . Land use plans of the Secretary under this section shall be consistent with State and local plans to the maximum extent he finds consistent with Federal law and the purposes of this act.”

Relevant plans, policies, or programs (e.g., State/local land use plans) that were considered in the preparation of this document are listed and discussed in the Environmental Consequences Chapter 4, as part of the cumulative impact scenario. In addition to all local, State and Federal regulations, the IDARNG must comply with internal Department of Defense (DoD), Department of Army (DA), and National Guard Bureau directives, policies, and regulations. The Integrated Natural Resources Management Plan (INRMP) and Integrated Cultural Resource Management Plan (ICRMP) guide IDARNG’s natural and cultural resource programs on the OTA and help ensure compliance with federal laws and regulations. These plans comply with the requirements of the BLM/IDARNG Memorandum of Understanding (MOU) and BLM policies. The MOU outlines the types of activities that are authorized, and identifies the requirements under which military activities are conducted, including wildfire suppression, law enforcement, habitat rehabilitation, etc.

As previously mentioned, BLM formed the ICG, which is composed of representatives from various Federal, state, and local agencies and government entities to ensure that, where practical, the Proposed RMP/FEIS was consistent with requirements in other agency plans. Since over 20% of the NCA occurs in Owyhee County, the Board of Commissioners signed a cooperating agency agreement, which allowed them to have representatives on BLM’s interdisciplinary team during RMP development. IDARNG also signed a cooperating agency agreement. IDARNG, as a cooperating agency, provided both natural resource and military training expertise on the interdisciplinary team for developing and analyzing the alternatives.

1.9 OVERVIEW OF THE BLM PLANNING PROCESS

As provided by FLPMA, BLM has the responsibility to plan for and manage public lands, which are defined as federally owned lands and interests in lands (e.g., mineral estate), that are administered by the BLM.

The process for the development, approval, maintenance, and amendment or revision of RMPs was initiated under the authority of Section 202(f) of FLMPA and Section 202(c) of the NEPA of 1969. BLM planning regulations in Title 43 of the CFR, part 1600 (43 CFR 1600), and the Council on Environmental Quality (CEQ) regulations in 43 CFR 1500 guide the process.

The pre-planning phase of the BLM process consists of (1) compiling and reviewing the current laws, regulations, policies, Executive Orders, and directives pertaining to the NCA; and (2) developing any needed guidance specific to the planning effort and the NCA RMP/EIS.

BLM decision-making relevant to land use planning includes the following:

- **Resource Management Planning.** The highest level of decision-making specific to land and resource use is in the management plan. RMPs generally (1) make land use allocations, (2) provide future management direction for managing specific areas of land, and (3) provide the framework for management of all natural resources under BLM authority. Once the EIS is completed the final decision is published as a Record of Decision (ROD)/Resource Management Plan, which will guide future BLM management.
- **Activity Planning.** For BLM, mid-level decisions are provided in implementation plans. These plans encompass more detailed management decisions than RMPs. Implementation planning addresses management of specific programs and usually ties to a specific location and usually se-



lects and applies best management practices (BMPs) to meet land use plan objectives.

- Project Decision. For BLM, individual projects proposed in a specific location are analyzed for localized or site-specific effects. For example, whether to put in a fence surrounding a grazing allotment.

As the highest level in the BLM planning process, the RMP will prescribe the allocation of and general future management direction for the resources and land uses of the public land in the NCA. In turn, the RMP will also guide lower tiers of the planning process; the implementation plans and project- or site-specific plans.

The NCA RMP is based on adaptive management, which is a continuing process of planning, implementation, monitoring, and evaluation to adjust management strategies to meet goals and objectives of ecosystem-based management. Adaptive management uses site-specific information/data, and professional judgment to select management strategies most likely to meet goals and objectives. The concept also acknowledges the need to manage resources under varying degrees of uncertainty as well as the need to adjust to new information. Also see Chapter 5, Monitoring and Implementation.



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2.1 INTRODUCTION TO AFFECTED ENVIRONMENT

This chapter provides an overview of the Snake River Birds of Prey National Conservation Area (NCA) and describes the existing situation for each of the resource programs. It describes both the biotic (living) and abiotic (non-living) components that may be affected by the proposed actions. Components of the environment that will be unaffected by proposed actions, such as climate and physical characteristics, are also briefly described. Current management direction is briefly summarized for each program.

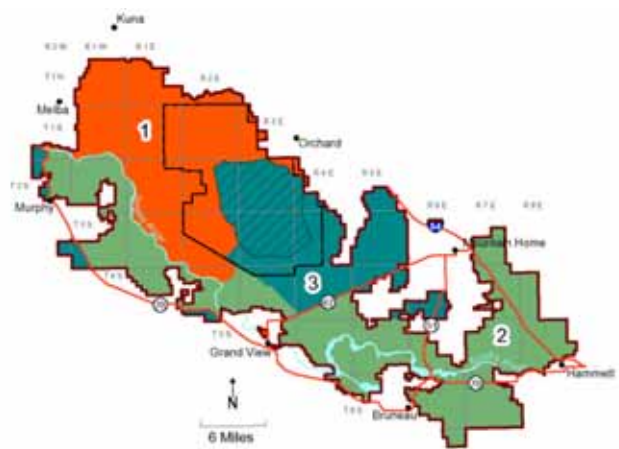
To make this document easier to read, we have used only the common name for plants and animals; a list of both common and scientific names can be found in the appendices.

This chapter also serves as part of the baseline data for identifying and analyzing the impacts of the four alternatives presented in this EIS. The alternatives are described in Chapter 3 while the environmental and socio-economic effects of the alternatives are described in the Environmental Consequences Chapter 4. Since not all areas of the NCA have the potential to achieve the desired future conditions (DFC) in the same manner and time-frame, the area has been divided into three management areas which reflect differences in soils, precipitation, fire history, seeding history, current vegetation, and site potential.

- **Area 1** encompasses approximately 31% of the NCA, and is located in the western portion of the NCA north of the Snake River. Area 1 has sustained the fewest wildfires (35% has burned), and supports the highest percentage of shrub cover (approximately 53% of the area supports a cover of native shrubs). This higher percentage of shrub cover allows Area 1 to support a greater amount of raptor prey base per unit area than can be supported in the other two areas. Raptor populations nesting along the downstream half of the stretch of the Snake River Canyon adjacent to Area 1 tend to be more stable and pro-

ductive than those that nest along other stretches of the Snake River Canyon in the NCA.

- **Area 2** comprises 43% of the NCA, and encompasses the eastern portion of the NCA and the portion south of the Snake River. The shrub component has been reduced to approximately 34% of the overall vegetative cover. Approximately 44% of Area 2 has burned. Snake River Canyon segments that support raptor nest sites are also present in Area 2.
- **Area 3** encompasses the remaining 26% of the NCA and is generally located in the center of the NCA, north of the Snake River. Approximately 21%, of Area 3 supports shrub cover. Virtually all of Area 3 within the OTA and about 69% of the area outside the OTA has burned.



Management Map 1. Because of differences in precipitation, soils, wildlife use patterns, seeding history, and current vegetation, the NCA has been divided into three areas to facilitate planning.



2.2 AFFECTED ENVIRONMENT FOR RESOURCES AND RESOURCE USES

2.2.1 Air Quality

Description and Summary

National Ambient Air Quality Standards (NAAQS) are established by the Environmental Protection Agency (EPA) for criteria pollutants including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter. Air quality standards represent the maximum allowable concentrations of various pollutants necessary to protect public health with a reasonable margin of safety. The Idaho Division of Environmental Quality (DEQ) has the primary responsibility to carry out the requirements of the federal Clean Air Act (CAA) in Idaho. The primary mechanism for implementation is known as the State Implementation Plan, which EPA requires each State to prepare.

The 1977 CAA amendments clarified that the federal government is subject to the CAA requirements. The 1990 CAA amendments required EPA to establish the transportation and general conformity regulations. The Final General Conformity Rule, effective January 31, 1994, applies to non-transportation related federal activities, such as prescribed fire.

A conformity determination must be made for projects emitting air pollutants over specified levels to show that the projects will not contribute to any NAAQS violations. If a project is found to contribute to NAAQS violations, then emissions must be reduced or offset. (Copies of the NAAQS can be obtained from DEQ or EPA.).

Of the six air pollutants particulate matter (PM) is of most concern for the Bureau of Land Management (BLM) when it authorizes activities involving smoke emissions and dust.

The majority of PM from smoke emissions is composed of organic and elemental carbon, and inorganic ash in the PM_{2.5} size class.

The EPA assigns classifications to geographic areas with respect to air quality conditions. When an area is considered for classification, there are three possible outcomes:

- Attainment – any area that meets the national primary or secondary ambient air quality standard for the pollutant.
- Non-attainment – any area that does not meet (or that contributes to ambient air quality in an area that does not meet) the national or secondary standard for the pollutant.
- Unclassified – any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Under the EPA's Natural Events Policy, the EPA may exercise its discretion to not designate an area as non-attainment if high PM₁₀ concentrations are attributed to wildland fire. However, the State is required to develop and implement a Natural Events Action Plan (NEAP) to respond to the health impacts of natural events. In March of 2002, the DEQ completed a NEAP for Idaho in response to the extensive wildland fire events of 2000.

The CAA also establishes a national goal of preventing any further degradation or impairment of visibility within federally designated attainment areas. Attainment areas are classified as Class I, II, or III and are subject to the Prevention of Significant Deterioration (PSD) program.

- Class I areas include wilderness areas (larger than 5,000 acres) and national parks (larger than 6,000 acres).
- Class III status is assigned to attainment areas to allow maximum industrial growth while maintaining compliance with NAAQS.
- All other attainment areas are designated Class II.

- By State law, Idaho cannot regulate agricultural burning.
- Agencies in Idaho coordinate prescribed burning through the Montana/Idaho Smoke Management Program certified by EPA and DEQ.



Condition and Trend

The planning area is a designated Class II area. The Sawtooth Wilderness Area, 60 miles from the NCA is the closest PSD Class I designated area.

Limited data is available on the air quality of the NCA because no air quality stations are operating in this portion of Idaho. Some data gathered at a field study station near Silver City (CH2M Hill 1994, pp 3-69 to 3-70) indicates that levels for PM₁₀ and Total Suspended Particles (TSP) are well below the current federal and State standards. Average measured particle concentrations were 28.4 micrograms per cubic meter (ug/m³) for TSP and 20.1 ug/m³ for PM₁₀. The PM₁₀ concentration is well below the federal and State 24-hour standard of 150 ug/m³ and indicates the area has low levels of TSP and PM₁₀. Other parameters, though not monitored, are believed to be below the federal and State standards due to a lack of emission sources.

Currently identified point and non-point sources of air pollution include BLM prescribed fires and Idaho Army National Guard (IDARNG) training activities, as well as the use of haul roads. The impacts of these sources are limited by requiring and implementing mitigation measures and/or standard operating procedures (SOPs) such as where road surfaces are treated with water or chemical dust suppressant(s) to reduce dust emissions.

Other sources affecting air quality are gravel and other material operations (fugitive dust from roads, construction, crushing, sieving, and other related operations). In these instances, operators are required to comply with State and Federal regulations and standards. If standards will be or are being exceeded, operators are required to apply for permits with the appropriate permitting agency. Other activities that remove vegetation and disturb the soil (i.e., vegetative treatments, livestock grazing, and OHV activities) also affect air quality by emitting fugitive dust.

2.2.2 Cultural and Tribal Resources

The BLM is responsible for identifying, evaluating, and protecting cultural resources on public lands. Under the requirements of the BLM/IDARNG Memorandum of Understanding, the IDARNG is also responsible for identifying and protecting cultural resources potentially affected by military training activities. Cultural resources include archaeological, historical, and architectural properties, as well as traditional cultural properties that are notable for their traditional, cultural and religious values deemed important to American Indian Tribes and others. Tribal resources are described here as elements that support the customs and cultures of the local Tribes, such as ethno-botanical plants and spiritually significant sites.

All known cultural resources and any cultural resources discovered in the future would be assigned to one or more of the following Cultural Resource Use categories:

- Conservation for Future Use
- Scientific Use
- Traditional Use
- Public Use
- Experimental Use
- Discharged from Management

Description and Summary

In general, cultural resources have been identified through proactive surveys conducted under Section 110 of the National Historic Preservation Act of 1966 (NHPA), as well as project-related field inventories conducted under the requirements of Section 106 of the NHPA. The majority of cultural resource site data has been accumulated through Section 106 project compliance inventories. Observer information and historical records are also used to identify archaeological, historical, and traditional values.

Three types of cultural resource inventories are conducted to identify and assess cultural resource values on public lands:



- Class I inventories evaluate existing data from published and unpublished documents.
- Class II inventories involve sample surveys designed to characterize the probable density, diversity and distribution of cultural resources.
- Class III inventories entail continuous, intensive surveys to locate and record all cultural resources in a project area.

Several comprehensive overviews of prehistoric life in southwestern Idaho provide the important context with which to evaluate such properties (Gehr *et al.* 1982; Young 1987).



Historic ruins on Halverson Bar along the Snake River.

The NCA contains approximately 1,180 recorded cultural properties, representing a wide variety of site types from various time periods.

The known cultural resources include prehistoric sites, historic sites, and multi-component historic/prehistoric sites. These sites create an important record of human occupation and use of the environment that spans several millennia.

Based on inventories conducted to-date, the most common type of prehistoric site in the NCA is the lithic scatter, which may contain stone tools such as knives, arrows, spear points, and scrapers. More often, however, a lithic scatter may simply contain flakes of stone debris left during the process of making or sharpening stone tools. Other prehistoric site types include caves, habitation sites, rockshelters, burials, and rock art sites left by Native Americans. The Snake River Canyon provided protected residential locations and fish-

ing stations for salmon that were an important resource. The anadromous fishery was first interrupted on the Snake River by the construction of the Swan Falls Dam in 1901 and later by other downstream dams.

The Great Basin, Plains, and Columbia Plateau cultures influenced the Native American inhabitants who lived within the NCA. Native American groups associated with all three cultural areas lived on, or traversed through, the lands within the NCA for thousands of years, during which time they hunted, fished, gathered plant foods, conducted religious ceremonies and buried their dead.

The Shoshone-Bannock Tribes of the Fort Hall Reservation and the Shoshone-Paiute Tribes of the Duck Valley Reservation continue to maintain an active interest in the NCA. Individual tribal members use public lands to gather plants or other natural materials, hunt, fish, and conduct religious rituals. The Shoshone-Bannock and Shoshone-Paiute nations continue to make connections to their past and create new cultural and religious sites within the NCA. The Tribes and the BLM routinely consult in government-to-government meetings to discuss proposed projects and their possible impacts to tribal resources. BLM management of natural resources must recognize and reflect an understanding of Native American Indian rights and interests and the importance of Native American Indian treaty rights and accompanying federal government trust responsibilities.

The NCA was used in the historic period by fur trappers, emigrants on the Oregon Trail, gold miners, ranchers and homesteaders. The most common type of historic cultural resources, from the 19th century and the early part of the 20th century, include cattle and sheep camps; homesteads; mining camp remnants; town sites; miners' cabins; mine tailings and debris; stone monuments; ditches; depressions; and graves. Other historic period sites include transportation road networks, trails, ferry crossings, irrigation ditches, and historic trash dumps or scatters. Historical overviews



and summaries may be found in cultural resource reports and books (Wyatt 1985, 1990; Plew 2001).

The Guffey Butte-Black Butte (GB-BB) Archaeological District was listed on the National Register of Historic Places in 1978 to protect over 200 known prehistoric sites in the area. The Archaeological District covers approximately 26,300 acres of public land extending along the Snake River Canyon from Guffey Bridge to Grandview and conforms to the original Birds of Prey Natural Area boundary, which was established in 1971. To provide additional protection against potential ground disturbing activities, such as mineral development and irrigated farming, the Archaeological District was designated as an Area of Critical Environmental Concern (ACEC) in 1984 (Cultural Map 1).

The South Alternate of the Oregon Trail, which roughly parallels the south side of the Snake River Canyon through the NCA, is designated as a Special Recreation Management Area (SRMA) and is managed under the 1984 Oregon Trail Management Plan.

Portions of the Oregon Trail and the GB-BB Archaeological District are in Visual Resource Management (VRM) Class I which minimizes the authorization of surface disturbing activities.

Other cultural resources include:

- Early cabin architecture at Wees Bar and Cabin Draw
- The ferry crossings at Crane Falls, Halls, and Dorsey
- Segments of the Oregon Trail
- Petroglyphs at Wees Bar and Celebration Park

Since only a small percentage of the NCA has been surveyed for cultural resources, it could potentially contain as yet undiscovered, but significant cultural sites that would require protection and management.



Native American petroglyph at Celebration Park

Currently, the BLM operates a modest outreach and interpretive program, which includes Archaeology Week presentations and the Spring Hikes environmental education series.

Condition and Trend

The condition and trend of cultural resources varies considerably due to the diversity of terrain, geomorphology, access, ground visibility, and past and current land use patterns. Artifacts, features, and/or structures are easily disturbed by wind and water erosion, animal intrusion, natural deterioration, and human activities. An example of this is the braided roads and trails created by off-road vehicle use in the Snake River Canyon, which, in some instances have impacted cultural sites. Some of these impacts have been mitigated by the improvement of a major road leading downstream from Swan Falls Dam. During this process, braided trails were physically closed with boulders and reseeded with native shrubs and perennial grasses. Although most users stay on the improved road because it is in the best condition, BLM cannot legally require users to stay off other roads or trails until they are officially closed through a route designation process. Route designation will occur following issuance of the RMP Record of Decision (ROD) or through area closures under the RMP.

Selected cultural sites in the Orchard Training Area (OTA) have been annually monitored since 1989 by the BLM and IDARNG, and a few sites outside the OTA have also been proactively monitored over the years. Based on limited monitoring, site form documentation,



and other information, cultural site condition trend throughout the NCA is considered to be downward. This downward trend is based on the natural effects of erosion, deterioration and decay. Active vandalism and illegal artifact collecting (unauthorized digging and “pot-hunting”) has been observed in limited instances, but is currently not a major problem.

Impacts caused by dispersed activities such as grazing and recreation have affected certain site locations. Natural deterioration and decay of standing structures at historic mining and homesteading sites is also a concern.

Although volunteers from the Oregon-California Trails Association, in cooperation with BLM, have been installing signs to mark and protect some segments of the Oregon Trail, a comprehensive survey of the Oregon Trail to determine the condition and impacts has not been accomplished. Cultural resource values are considered high based on: (1) interest expressed by members of local Tribes and communities, (2) known research interests of area scholars and other professionals, (3) documented site conditions, and (4) site visits by BLM staff. Both BLM and IDARNG conduct limited proactive surveys to identify new cultural sites and avoid impacts.

2.2.3 Fish and Wildlife

In 1993 the NCA was established to conserve, protect, and enhance the densest known nesting population of raptors in North America and their habitats. In Idaho, the Idaho Department of Fish and Game (IDF&G) has primary responsibility for managing fish and wildlife populations. On public lands in the NCA,



Prairie Falcon. The NCA supports North America’s densest known raptor nesting populations.

the BLM is responsible for providing suitable fish and wildlife habitat. This wildlife section begins with a general discussion of the various habitats that exist in the NCA, followed by a discussion of the nesting and migrating raptors that spend all or a portion of their year in the NCA. We then discuss the major raptor prey species, and identify other major wildlife groups that occur in the area. The NCA also provides habitat for over 300 additional wildlife species (Appendix 5) including:

- 257 birds
- 55 mammals
- 18 reptiles
- 7 amphibians
- 27 fish
- an unknown number of invertebrate species.

For additional information regarding Fish and Wildlife see the Special Status Animals Section 2.2.6.1.

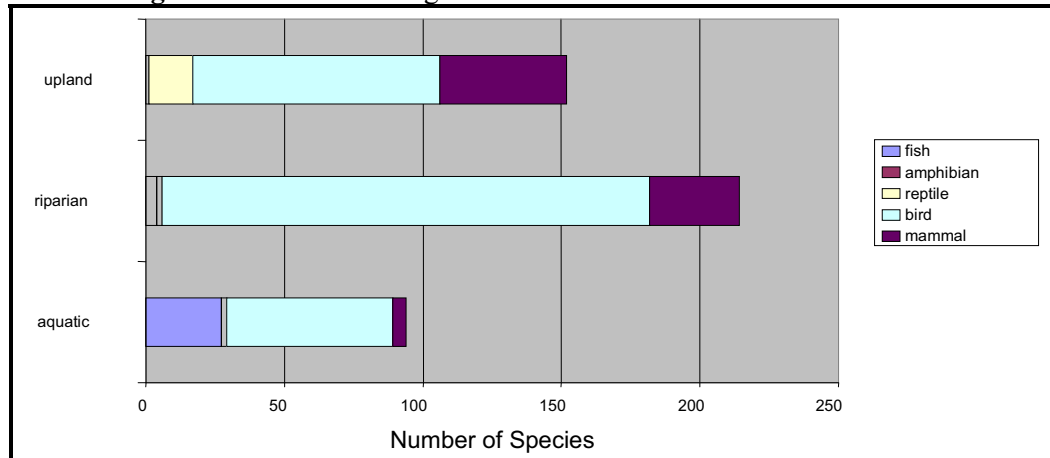
Wildlife Habitat

Habitat provides necessary food, water, shelter, and space, without which wildlife could not exist. This section describes the NCA’s three primary categories of habitat and their associated wildlife (Wildlife Figure 2.1). Many wildlife species inhabit more than one category, while some are tied to very narrow habitat parameters, such as fish.

BLM and the IDF&G jointly manage the Trueblood Wildlife Management Area (TWMA) ponds and Borden Lake. The Idaho Department of Lands (IDL) manages navigable waters in the State. Since the Snake River and C.J. Strike Reservoir are considered navigable, BLM only manages the public land above the high water mark. These riparian areas provide habitat for 27 fish, 6 amphibians, 4 mammals, and 68 birds, including American white pelican, trumpeter swan, black tern, and Barrow’s goldeneye. Although the riparian areas are not managed specifically for waterfowl species, BLM’s mandate to maintain or improve water quality benefits these species.



Wildlife Figure 2.1. Wildlife Usage of the NCA.



The following species can be found in riparian and wetland habitats in the NCA:

- Aquatic amphibians include leopard frogs and bullfrogs, which breed in water.
- The western garter snake is the most aquatic of the reptiles.
- Aquatic birds include loons, grebes, pelicans, cormorants, swan, geese, ducks, coot, gulls, and terns.
- Aquatic mammals include beaver, otter, mink, and muskrat.
- Aquatic insects include mayflies, caddis flies, mosquitoes, midges, backswimmers, water boatman, giant water bugs, whirligig beetles, water striders, dragonfly larvae, damselfly larvae, predaceous water beetles, and crane flies.
- Other invertebrates include crayfish, clams, mussels, snails, worms, leaches, copepods, scud, and shrimp.

Wetland/Riparian Habitat

Riparian habitat is shoreline habitat that is affected by water in a pond, spring, stream, river or lake. Wetland habitat is found in bogs and marshes, shallow swamps, seeps, lakeshores, riparian areas and playas (usually dry basins that temporarily hold water after spring thaw or following periods of heavy rain.).

Native plants in many riparian areas are being replaced by exotic plants that are not utilized

by many native animals. Russian olive and tamarisk-dominated riparian areas host few insects, and are infrequently used by songbirds for nest sites (OSU 2003, p 1; Weir 1998, pp 2-3, Gilman and Watson 1993, p 4; Colorado Weed Management Association 1999, p 1). Russian olives produce large crops of fruit that are eaten by many birds, especially in winter and early spring. Tamarisk does not produce seeds useful to wildlife. Neither plant is utilized by browsing animals. Beaver appear to be repelled by Russian olive and seldom cut them down, even when they are the dominant tree species within their territory (J. Doremus pers. obs.). Therefore, Russian olive tends to increase along river banks and reservoirs where native trees have been removed, further reducing important wildlife habitat. The lack of native trees and the insects they would support may have a negative effect on birds during spring migration.

Waterfowl are less productive because exotic weeds like European phragmites (Saltonstall 2002, p 2445), purple loosestrife (Thompson *et al.* 1987) invade riparian understories, forming dense stands in some areas that crowd out native emergent vegetation, thus, reducing the number of suitable nest sites. Phragmites seeds are eaten by some song birds, while loosestrife appears to have no wildlife value (Callihan and Miller 1994, p 37). Neither of these plants appears to be utilized as food by mammals.



Riparian habitats invaded by these species are reduced in value for wildlife.

Canada thistle, white top, and perennial peppergrass grow most abundantly in damp soils. White top has adapted to drier conditions and can be found scattered over much of the NCA. Perennial peppergrass has appeared at a few upland sites. These plants are considered noxious weeds by the State of Idaho, and can grow in dense stands that not only crowd out native vegetation, but may also inhibit the movement of small animals. Although about 600 acres are treated each year for noxious and invasive weeds, they will continue to be a long-term management issue.

Millions of birds, including raptors, waterfowl, shore birds, upland game birds, and song birds migrate through the NCA each spring. Because it is considered a navigable stream, the Snake River is owned by the State to the high water mark. As such, the only aquatic habitat that is solely managed by the BLM is 2.4 miles along Sinker Creek.

Wetland/riparian habitats are used by more vertebrate animals than any other habitat. Montan (1977, p 26) observed more rodents in riparian habitat than any other area in the NCA.



Migrating birds are especially abundant along the Snake River.

Additional species found in riparian areas include:

- Mammals such as woodrats, mice, voles, beaver, porcupine, marmot, and muskrat. Other mammals found in riparian/wetlands are shrews, mule and white-

tailed deer, red fox, skunks, mink, weasels, raccoon, cottontail, gophers, and bats.

- Birds include herons, egrets, ibis, ducks, osprey, bald eagles, red-tailed and Swainson's hawks, sharp-shinned and Cooper's hawks, northern goshawks, ring-necked pheasants, California quail, Virginia rail, sora, shorebirds, gulls, terns, owls, hummingbirds, flycatchers, swallows, magpies and crows, chickadees, wrens, thrushes, vireos, warblers, sparrows, juncos, blackbirds, and finches.
- Reptiles include snakes and lizards.
- Amphibians include frogs and toads.
- Invertebrates include caddis flies, may flies, grasshoppers, moths, butterflies, bees, wasps, ants, beetles, dragonflies, damselflies, aphids, leaf hoppers, mosquitoes, scorpions, ticks, and spiders.

Upland Habitat

Upland habitat is a broad category that has been divided into six specific types: (1) greasewood, (2) salt desert shrub, (3) winterfat, (4) big sagebrush, (5) grassland, and (6) rock. Each of these types varies enough in structure and soil type to attract specific wildlife species. However, most species inhabit two or more types.

The NCA's wildlife populations are affected by climate, weather, and habitat quality. Of these, habitat quality is most affected by human activity. Loss of the native shrub steppe vegetation, combined with the invasion by non-native plants, has lowered the ecosystem's productivity, and resulted in a lower carrying capacity for native wildlife populations. There is less food for wildlife as the vegetation devolves from native shrub-grass to areas dominated by one or more exotic weeds and then to bare soil. Shrub-obligate animals find less useable habitat as shrub stands disappear from fires, human activities, and drought. Some areas, such as portions of the Rattlesnake and Airbase allotments, near the Mountain Home Air Force Base, are undergoing desertification and are losing wildlife species.



Greasewood

Greasewood is a common large shrub on saline bottoms just above the Snake River. Many greasewood flats have been converted to agriculture. Greasewood is often found along water courses through salt desert shrub habitat. Saltgrass and Great Basin wildrye are the native grasses most often found with greasewood. White top is a common noxious weed in this habitat. Stands of greasewood are important habitat for black-tailed jackrabbits, especially in winter. Mule deer, coyotes, cottontails, raccoons, and gophers are found in greasewood.

Western meadowlarks, loggerhead shrikes, sage thrashers, dark-eyed juncos, white-crowned sparrows, robins, northern harrier, short-eared owls, golden eagles, ring-necked pheasants, California quail, gray partridge, and magpies use greasewood habitat, as do gopher snakes, racers, striped whipsnakes, rattlesnakes, western whiptail lizards, side-blotched lizards, leopard lizards, western fence lizard and horned lizards.



Black greasewood habitat in the Snake River Canyon downstream from Swan Falls Dam

Amphibians found in greasewood habitat include spadefoot, western and Woodhouse's toads. Invertebrates include many of those found in riparian vegetation.

Salt Desert Shrubs

Salt desert shrubs are the common shrubs in areas of low precipitation, and include a wide variety of salt tolerant shrubs, including greasewood (discussed above), four-winged saltbush, spiny hopsage, shadscale, budsage, and winterfat (see below). Grasses commonly associated with this habitat are Indian ricegrass, needle and thread grass, and cheatgrass. Animals commonly found in this habitat include:

- Mammals – kangaroo rats, mice, pronghorn, coyotes, badgers, and jackrabbits,
- Birds – horned larks, lark sparrows, prairie falcons, ferruginous and red-tailed hawks, golden eagles, great horned owls, and burrowing owls.
- Reptiles – whiptail and leopard lizards, horned lizards, side-blotched lizards, rattlesnakes and gopher snakes.
- Invertebrates – scorpions, spiders, beetles, ants, grasshoppers, butterflies, robber flies, gnats, flies, mosquitoes, moths, ticks, and fleas.
- Amphibians – spadefoot toads.



Side-blotched lizard



Western Terrestrial Garter Snake



Winterfat

Winterfat is considered a salt desert shrub, but it can grow in areas of low salt content and does not grow in areas of high salt content.

Animals common to winterfat areas include:

- Mammals – Piute ground squirrel, kangaroo rat, mice, jackrabbits, pronghorn, coyotes, badgers, white-tailed antelope squirrel,
- Birds – American kestrels, northern harriers, prairie falcons, ferruginous and red-tailed hawks, rough-legged hawks, golden eagles, turkey vulture, burrowing owl, horned lark, common nighthawk, common ravens, American pipit, loggerhead shrike, and lark sparrow.
- Reptiles – Rattlesnakes, gopher snakes, striped whipsnakes, racer, longnose snake, nightsnake, leopard lizard, whiptail, horned lizard, sagebrush lizard, spadefoot toad.
- Amphibians – spadefoot toads.
- Invertebrates – scorpions, spiders, beetles, ants, grasshoppers, butterflies, robber flies, gnats, flies, mosquitoes, moths, ticks, and fleas.



Winterfat may be found in large stands with few other shrubs, in a mosaic with sagebrush or shadscale, or in mixed shrub habitat.

Big Sagebrush

Big sagebrush is found just above riparian habitat and in the wetter areas of upland habitats. It can be found in a mosaic with winterfat and less commonly shadscale. Sagebrush can often be found along water courses through winterfat and less commonly through salt desert shrub habitat. Animals common to sagebrush habitat include:

- Mammals – Mule deer, pronghorn, coyote, badger, jackrabbits, ground squirrels, mice, voles, kangaroo rats, long-tailed weasels, pygmy rabbits, cottontails, gophers, and least chipmunk.
- Birds – Turkey vulture, golden eagle, ferruginous and red-tailed hawks, prairie falcons, sage-grouse, burrowing and short-eared owls, common nighthawk, horned lark, western meadowlark, sage and Brewer's sparrows, sage thrasher, loggerhead shrike, and raven.
- Reptiles – Gopher snake, rattlesnake, side-blotched lizard, sagebrush lizard.
- Amphibians – Spadefoot toad, western toad, Woodhouse's toad, and pacific tree frog.
- Invertebrates – Spiders, scorpions, ants, beetles, butterflies, moths, flies, robber flies, grasshoppers, ticks, and fleas.

Grassland

Exotic grasslands are dominated by cheatgrass, medusa-head rye, or crested wheatgrass, while native grasslands are dominated by Sandberg's bluegrass, with minor amounts of bottlebrush squirreltail and Thurber's needlegrass. Some areas of more sandy soil may support significant stands of needle-and-thread and Indian ricegrass. Grassland is found where shrub-grasslands have been disturbed by fire. Animals found in grasslands include:

- Mammals – Pronghorn; mule deer; coyote; badger; ground squirrels; mice, voles; and gophers.
- Birds – horned larks; long-billed curlews; prairie falcons; red-tailed; ferruginous; Swainson's hawks; burrowing owls; short-eared owls; ravens; and starlings.



- Reptiles – gopher snakes.
- Invertebrates – ants, beetles, butterflies, moths, grasshoppers, robber flies, flies, ticks, and spiders.

Rock

Rock outcrops, canyon walls, and talus are attractive to many animals for breeding, food, and cover. Animals that would be expected to use rock habitat type include:

- Mammals – bobcats, marmots, woodrats, raccoons, coyotes, skunks, cottontail, mice, and bats.
- Birds – Eagles, hawks, falcons, owls, geese, turkey vultures, chukar, swifts, swallows, wrens, phoebes, nighthawks, poorwills, ravens, starlings, rosy finches, house finches, house sparrows.
- Reptiles – rattlesnakes, whipsnakes, night snakes, ground snakes, longnose snake, black-collared lizards, side-batched lizards, and fence lizards.
- Amphibians – chorus frogs.
- Invertebrates – honey and leafcutter bees, wasps, ants, beetles, flies, centipedes, millipedes, spiders, scorpions, and fleas.

Raptors

A unique assemblage of raptors lives in the Snake River Canyon and adjacent lands of southwestern Idaho. This raptor aggregation, generally believed to be one of the densest in the world, is the reason for the NCA's designation. Raptors are relatively scarce animals even under the best conditions because they exist at the top of the food chain where the amount of energy available will support only small populations. Species with a small population size are at risk of extinction. Thus, anything that reduces the already small populations of raptors is especially critical to their survival (Marti 2002, p 1).

The first scientific studies of raptors in what is now the NCA were conducted in the mid-1960s (Hickman 1968), soon followed by Beecham (1970), Kochert (1972), and Ogden (1973). The BLM began research to investigate the ecology of raptors and their prey in

1972. BLM, United States Geological Survey (USGS) biologists, and researchers from various universities and other entities have continued that effort to the present. This section describes the raptor community with emphasis on important species, their prey and habitat, and other birds of the area that are considered to be special status species (SSS).



Red-tailed hawk

This unusual concentration of raptors exists because of the co-occurrence of two factors critical to their survival (USDI 1979, p. 2). One is that nest sites are very abundant in cavities, cracks, and ledges in the fractured basalt and eroded sandstone that make up the walls of the Snake River Canyon, numerous side canyons, and buttes that arise in the Snake River plain. Some of the cliffs are up to 500 feet (ft.) high. Still other nest sites are located in trees, on the ground, and even under ground. The second factor is the fertile, fine- and medium-textured loess soils that support grasses, forbs, and shrubs, which in turn sustain many small mammals, birds, reptiles, and invertebrates. These animal populations, especially Piute ground squirrels and black-tailed jackrabbits are prey for the raptors. Thus, the co-occurrence of abundant nesting sites and food supplies is the chief factor explaining why so many raptors occur in the NCA.

There are 25 raptor species that use the NCA during some portion of their life cycles (Wildlife Appendices 4, 5, 6 and 7). Sixteen species nest in the NCA, and the remaining nine occur



there during migration or in winter. Prairie falcons, golden eagles, red-tailed hawks, northern harriers, and American kestrels are the most common diurnal species. Several owl species are also common, including the barn owl, great horned owl, long-eared owl, and burrowing owl, but, being nocturnal, except for the burrowing owl, their occurrence is much less noticeable than the diurnal species. Of the 16 nesting raptor species, 10 are year-round residents. Winter visitors include the bald eagle, rough-legged hawk, sharp-shinned hawk, and Cooper's hawk. See Appendix 6 Wildlife Table 1 – General Characteristics of Raptors in the NCA.



The lack of nest sites has been partially mitigated by construction of nesting boxes.

Raptors use diverse habitats in the NCA, nesting in three distinct zones: the cliffs, the uplands above the Snake River Canyon, and the riparian areas adjacent to the Snake River (Appendix 7 – Wildlife Table 2). Riparian habitats are limited, occurring in narrow bands along the Snake and Bruneau rivers and several small streams. Isolated, small riparian areas also occur at seeps, springs, and intermittent streams. Trees in riparian areas are important nesting and roosting habitat for several raptors and are hunting habitat for some, including species found there only in the winter. Long-eared owls, northern harriers, western screech-owls, and saw-whet owls are the rap-

tor species that nest in riparian areas of the NCA. Because many native trees have been replaced by invasive species, like tamarisk and Russian olive that provide less valuable roosting and nesting habitat, numerous nest boxes have been erected and are used by western screech-owls and northern saw-whet owls (Doremus 1992, p 356).

Status of Raptors and Factors Affecting Them

The best-studied raptor species in the NCA are the prairie falcon and golden eagle. Long-term monitoring has provided important insights about the status of both species (Steenhof *et al.* 1997, pp 350-366; 1999 pp 28-41), and as such, they are important barometers of habitat conditions. In addition, studies during the 1990s gathered information about the effects of fire and military activity on species that nest on the uplands above the Snake River Canyon.

Prairie Falcon

Prairie falcons typically nest on cliffs, outcroppings, or pinnacles in cavities, ledges, or nests of other raptors and ravens. The prairie falcon is a migratory raptor that times its annual breeding cycle to coincide with the seasonal activity patterns of ground squirrels (USDI 1996, p 78). Prairie falcons start returning to their NCA breeding areas in January soon after Piute ground squirrels emerge from six months of seasonal inactivity. Peak egg laying corresponds with the above-ground appearance of juvenile ground squirrels, which



The Prairie Falcon times its annual breeding cycle to coincide with the seasonal activity patterns of Piute ground squirrels.



increases the abundance and availability of falcon prey. Prairie falcons leave the NCA in late June or early July when ground squirrels disappear below ground to escape the heat and dryness. Some prairie falcons return in fall and winter.

Although they are capable of preying on a wide variety of animals, breeding prairie falcons rely heavily on the Piute ground squirrel (Steenhof and Kochert 1988, p 41). Ground squirrels are the only species rich enough in fat to provide the calories needed by prairie falcons to raise broods of four to five young during a 3 to 4 month nesting season (USDI 1979, p 82). The prairie falcon population in the NCA probably consumes more than 50,000 ground squirrels in a single nesting season.

In the NCA, falcons hunt as far as 23 miles from their nests (Marzluff *et al.* 1997a, p 573), making surprise attacks on ground squirrels by covering as much area as possible in a low, contour-hugging flight (Steenhof 1998, p 5). Most falcons range north of the Snake River in a generally perpendicular direction from the Snake River Canyon (Dunstan *et al.* 1978, p 31; Marzluff *et al.* 1997a, p 575). Falcon foraging ranges are large (approximately 116 square miles), and individual foraging ranges overlap extensively. Foraging ranges contain more winterfat and native perennial grasses (especially Sandberg bluegrass) and significantly less salt desert shrub and exotic annual grass stands than expected based on availability (Marzluff *et al.* 1997a, p 579).

Prairie falcon nesting densities are higher in the NCA than anywhere else in the world. In a good year, more than 200 pairs nest in the NCA (Appendix 8 – Wildlife Table 3). In some parts of the Snake River Canyon, prairie falcon pairs nest within 330 ft. of each other.

In 1975, surveys found 165 pair of nesting prairie falcons along 78 miles (2.1 pair/mile) of the Snake River from Guffey Bridge to Indian Cove Bridge. Conversely, only 4 pairs were found in 36 river miles from Hammett,

Idaho to the mouth of the Malad River (0.11 pair/mile) (Kochert *et al.* 1975, p 41).

Prairie falcon pairs are not evenly distributed throughout the NCA. Mean number of falcon pairs in each six-mile stretch of the NCA has ranged from 2 to 41 (Wildlife Figure 2.2). The west end of the NCA (near Halverson Lake and Swan Falls Dam) supports the highest density, with six-mile units no. 5 and 6 containing the most pairs. These two stretches have the highest cliffs, provide optimal habitat, and are almost fully saturated in all years. Number of pairs in stretches with intermediate densities in the central portion of the NCA (units 7 to 12; Wildlife Figure 2.2) varied considerably; these stretches empty and fill as the overall prairie falcon population decreases and increases (Kochert and Steenhof 2004a).

Some have estimated that the NCA provides habitat for up to 5% of all the prairie falcons in North America (USDI 1979, pp 2-10). Numbers of nesting prairie falcon pairs have changed over the years, ranging from 159 to 217 pairs. However, there is no evidence for a declining trend. The number of pairs found in 2002 (217) and the number estimated in 2003 (204) were similar to numbers found in the 1970s (Kochert and Steenhof 2004, Table 6).

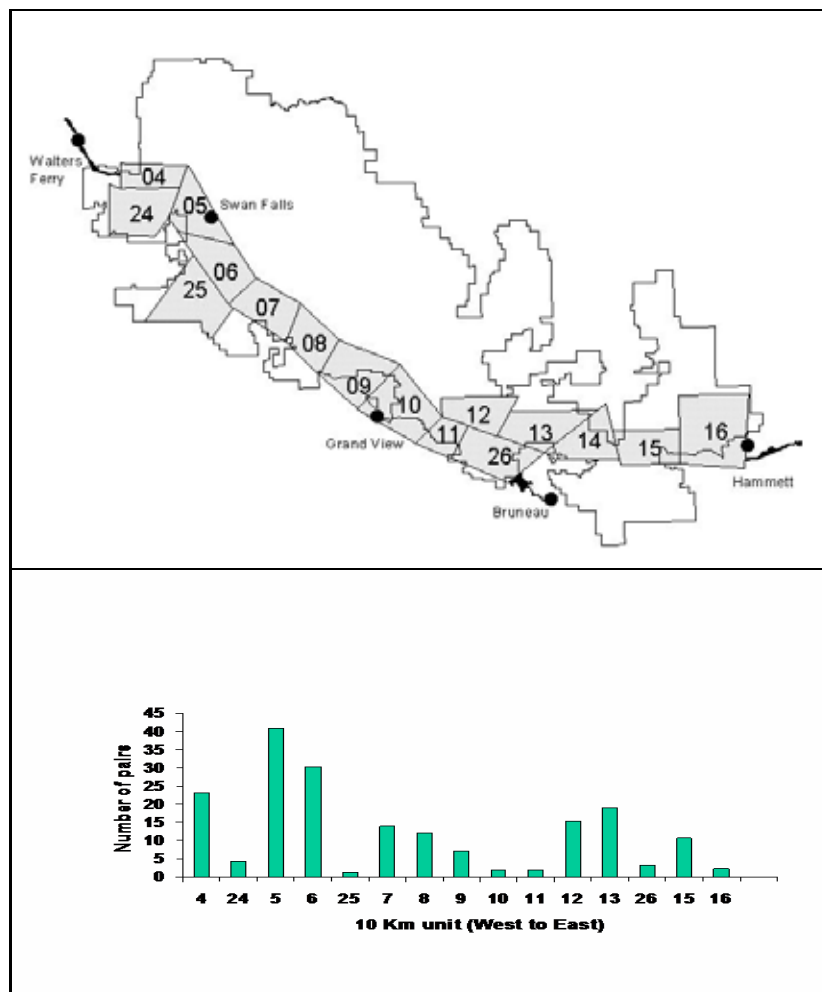
As with nesting densities, falcon productivity has shown wide swings since the fires of the early 1980s, but unlike abundance, productivity may be on a downward trajectory (Wildlife Figure 2.3). Prairie falcons do not shift readily from ground squirrels to alternate prey, and when ground squirrel abundance is low, they pay the price in lower reproduction (Steenhof and Kochert 1988, p 41 and Steenhof *et al.* 1999, pp 33-36). Although nesting pair numbers were near all-time highs, success and productivity of prairie falcons in 2002 and 2003 were below the long-term mean, and in 2003 these measures were the third lowest recorded in 17 years of monitoring from 1974 to 2003 (Kochert and Steenhof 2004). Lower and more variable falcon productivity may reflect population changes of their main prey species. Ground squirrel abundance fluctuates



more in disturbed grasslands dominated by exotic plant species, and the proportion of the NCA comprised of these grassland habitats has increased markedly over the past 20 years. Recent droughts have resulted in lower ground squirrel densities, particularly in areas domi-

nated by exotic annuals (Steenhof *et al.* 2004, p 2). Drought and climatic changes may be affecting ground squirrel chronology and abundance that may, in turn, be affecting falcon productivity (Kochert and Steenhof 2004).

Wildlife Figure 2.2. Location of 10-km Units in the NCA and Mean Number of Prairie Falcon Pairs by 10-km Unit, 1976 to 2002. The First Figure Shows the Areas Sampled (with Identification Number for Each), and the Associated Graph Shows the Average Number of Nesting Prairie Falcons Pairs Found in Each of the Sampled Units.



Drought is related to its effect on the stability of raptor prey populations, since they are dependent on the vegetation that is affected by drought. Steenhof *et al* (1999) showed that prairie falcon populations are affected by

changes in prey abundance, which in turn, is a reflection of forage conditions. Severe droughts (ones that begin in late fall and carry over into the next summer) have a negative effect on Piute ground squirrel survival and



productivity. In 1977 (a year with very little plant growth and virtually no green forage), ground squirrel productivity was almost non-existent, and ground squirrels went underground for the year at least a month earlier than the two previous years, and at a lighter weight. Effects of the drought on the ground squirrel population were reflected in the sub-

sequent prairie falcon population response, as shown below. During the year of the drought, the number of nesting pairs remained constant, but productivity suffered, as measured by the number of young fledged per pair, as well as the number of pairs that were successful at fledging young. This effect worsened the year following the drought, as seen in 1978.

Year	Number of nesting pairs	Number of young fledged per pair	% of pairs successful at fledging young
1976	205	2.99	75
1977	206	2.00	55
1978	182	1.84	50

The drought in 1992 had a similar effect on ground squirrels. There was little or no available green forage, and adult ground squirrels submerged weeks earlier than usual and at a much lighter weight than normal. Although a large number of young were produced, they

remained above ground longer into the summer, attempting (unsuccessfully) to put on enough weight to survive the winter. The significant loss of 1992's cohort of young ground squirrels was reflected in a significant reduction in prairie falcon productivity in 1993.

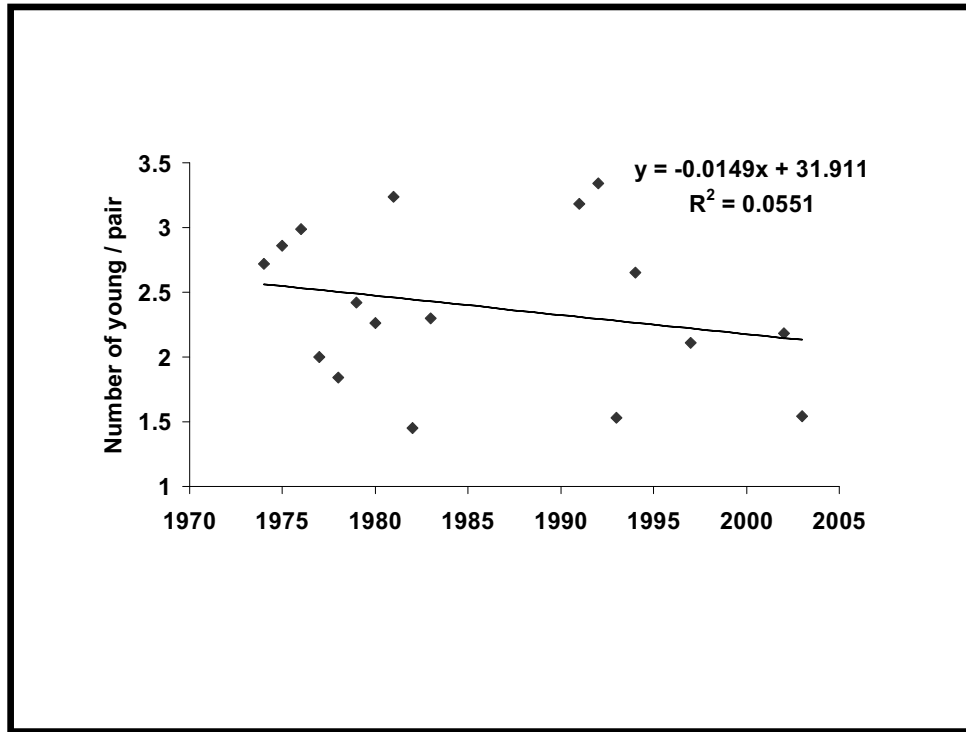
Year	Number of nesting pairs	Number of young fledged per pair	% of pairs successful at fledging young
1991	194	3.18	78
1992	187	3.34	79
1993	160	1.45	37

During the 1990s, falcon nesting success and productivity were significantly lower in the west-central region of the NCA (Wildlife Figure 2.2 units 7, 8, and 9) than in other parts of the NCA (Steenhof *et al.* 1999, p 35). This pattern continued in 2002 (Kochert and Steenhof 2003, p 9), but not in 2003 (Kochert and Steenhof 2004). During the 1990s, falcons from the west-central area were less effective at obtaining ground squirrels than falcons from the west area (Wildlife Figure 2.2 units 4, 5 and 6), especially during droughts (Marzluff *et al.* 1997a, p 576). The west-central region experienced the least shrub loss from 1979 to 1997, so shrub loss by itself does not explain the spatial differences in falcon reproductive rates (Steenhof *et al.* 1999, p 36). The west-central region has more shadscale

communities, which support lower densities of ground squirrels (Smith and Johnson 1985, p172). In addition, falcons from the west-central region forage mainly in the OTA where military training activities occur. It is likely that military training activities have interacted with fire and livestock to create less than favorable foraging opportunities in the west-central stratum (USDI 1996b p92). Military training could affect prairie falcon foraging efficiency either by directly disturbing foraging behavior or by indirectly causing subtle habitat changes that adversely influence ground squirrels. If military training activity is affecting prairie falcons adversely, it is not yet understood what mechanisms might be involved (Steenhof *et al.* 1999, p 38).



Wildlife Figure 2.3. Number of Young Prairie Falcons Fledged Per Pair, 1974 to 2003.



Golden Eagle

Golden eagles are opportunistic predators and prey on a variety of animals (Kochert *et al.* 2002, p 8). In the NCA, eagle productivity is closely associated with the black-tailed jack-rabbit population cycle. When rabbit numbers are high, eagle productivity is also high; more pairs lay eggs, more pairs are successful, and more young fledge (Steenhof *et al.* 1997, pp 354-360). Good jackrabbit habitat is an important component of good eagle habitat in the NCA. Other important eagle prey in the NCA includes Nuttall’s cottontail, ring-necked pheasant, yellow-bellied marmot, and Piute ground squirrel (USDI 1979a, p 73, Steenhof and Kochert 1988, p 44). The golden eagle is a resident species and mostly hunts within about two miles of its nest (Dunstan *et al.* 1978, p 98; and Marzluff *et al.* 1997b, pp 673-686).



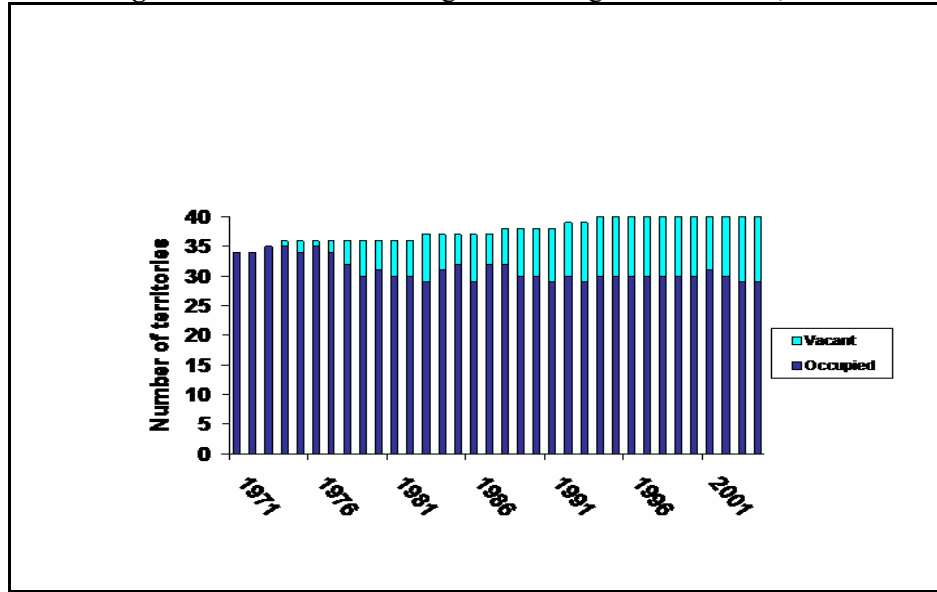
The **Golden Eagle** is a long-lived species that usually places its nests on cliff ledges. It may also nest in trees or on artificial structures. An important component of the Golden Eagle habitat is good jackrabbit habitat.

The number of golden eagle pairs showed a slight but significant negative trend between 1971 and 2004, but the decline has not been continuous (Wildlife Figure 2.4). The number of nesting pairs remained relatively stable—

between 34 and 35—from 1971 to 1976. The number of pairs decreased to 29 pairs between 1977 and 1979 and remained stable from 1979 to 2004, ranging between 29 and 32 (Kochert and Steenhof 2005, p 5). In 2004, 29 pairs of eagles nested in the NCA.



Wildlife Figure 2.4. Status of Nesting Golden Eagles in the NCA, 1971 to 2004.



The combined shaded areas of Wildlife Figure 2.4 represent the total number of known territories each year. This total increased from 1971 to 1973 due to increased familiarity with the study area and from 1983 to 1994 due to the establishment of four new territories.

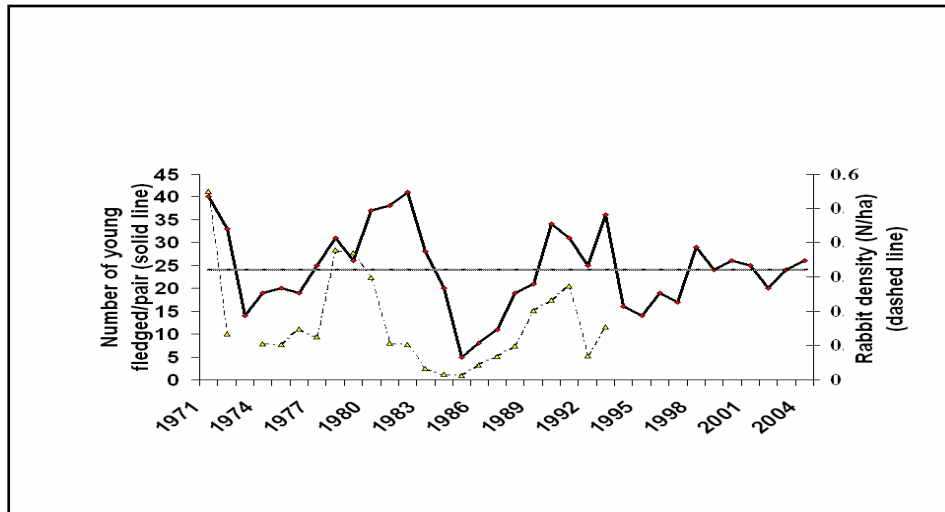
Half of the 40 known nesting territories in the NCA were vacant at least one year between 1971 and 2004. Eagles have reoccupied 12 of the 20 vacant territories. All but one was reoccupied within 5 years; however, one pair reoccupied a territory that had been vacant for 15 years. Neighboring pairs have subsumed at least four and possibly six vacant territories. In these cases, one pair is using two nesting territories formerly occupied by two pairs. Once a territory is subsumed, pairs are less likely to reoccupy these territories. By 2004, there had been a net loss of six pairs since the early 1970s. The decline in number of occupied eagle nesting territories, combined with the apparent decline in black-tailed jackrabbits suggests a reduced carrying capacity for golden eagles in the NCA (Kochert and Steenhof 2005, p 6).

In contrast to the number of breeding pairs, productivity of golden eagle pairs did not show a negative trend (Kochert and Steenhof

2005, p 7; Figure 5). Although the total number of young fledged per year varied considerably, the amplitude of the variation has dampened since 1993, fluctuating around the long-term mean for the population. The major decline in productivity during the mid-1980s was associated with catastrophic wildfires that occurred primarily between 1981 and 1985 (Kochert *et al.* 1999, p 17). At about the same time black-tailed jackrabbits, the eagles' main prey, experienced a cyclic decline in numbers (Steenhof *et al.* 1997, p 350). Wildfires may have accentuated the severity of the rabbit decline in the 1980s, and rabbit numbers are not reaching the highs they once did. The total number of young eagles fledged annually has remained relatively stable since the late 1990s. Data suggest that the less productive territories have become vacant, and that the remaining core of pairs continues to be productive (Kochert and Steenhof 2005, p 7). Radio telemetry studies showed that eagles use burned habitats less than expected in relation to their abundance; they avoid grass habitats (Marzluff *et al.* 1997b, p 687). Eagles appear to have compensated for the loss of shrub habitat by expanding their ranges, using alternative habitats, and preying less on jackrabbits and more on alternate prey (Marzluff *et al.* 1997b, p 681 and Kochert *et al.* 1999, p 1).



Wildlife Figure 2.5. Total Number of Young Golden Eagles Fledged in the NCA in Relation to Black-tailed Jackrabbit Densities. Horizontal Line Equals the Long-term Mean Number of Eagles Fledged, 1971 to 2004.



Other Raptors

Raptor species that nest on the uplands above the Snake River Canyon include ferruginous hawks, burrowing owls, short-eared owls, and northern harriers. These species nest on the ground, in burrows, in shrubs, and on artificial nesting platforms. The PacifiCorp 500-kV transmission line that traverses the NCA provides nesting substrate for a variety of raptor species (Steenhof *et al.* 1993, p 275). The upland nesters have been relatively resilient to habitat changes.

Northern Harrier

The northern harrier is found across most of Idaho (Stephens and Sturts 1998, p 19). Northern harriers nest on the ground in emergent vegetation, hay and grain fields, and tall grass. Although we have no statistical evidence that northern harrier populations benefit from wildfires, they have been found nesting in burned habitats substantially more often than expected. They also prefer to nest in patches of Russian thistle and stands of tumble mustard that have invaded disturbed areas (Lehman *et al.* 1996b, p 6). Northern harriers can be found year round, but it is not known if birds that nest here also winter here. During years of abundant small mammals, northern

harriers can be one of the most abundant nesting raptors in the area. The breeding population of harriers is tied to prey abundance. When small mammal populations are low, few northern harriers nest in or near the NCA.

Sharp-shinned Hawk

Sharp-shinned hawks are forest nesting hawks that prey on small birds. In Idaho, they are found over most of the State (Stephens and Sturts 1998 p19). They nest at higher elevations than the NCA. In the NCA, sharp-shinned hawks are spring/fall migrants and winter residents.

Cooper’s Hawk

Cooper’s hawks nest in trees in forests, riparian areas, farms, and towns. They primarily eat small birds, but they do take small mammals. They nest at higher elevations than the NCA (Stephens and Sturts 1998, p 19). In the NCA they are spring/fall migrants and winter residents.

Northern Goshawk

In Idaho, northern goshawks are found over much of the State (Stephens and Sturts 1998, p 19). They nest at higher elevations than the NCA. In the NCA, they are spring/fall mi-



grants and winter residents. They feed on small to medium size birds and mammals.

Red-tailed Hawk

This is the most common large soaring hawk in North America, as well as the NCA. It is found throughout Idaho (Stephens and Sturts 1998, p 20). In the NCA, it nests on cliffs, trees, and rarely nests on platforms. Red-tailed hawks feed on insects, amphibians, reptiles, birds, and especially on mammals from shrews to jackrabbits. The Piute ground squirrel is their most common prey (USDI 1976 pp 35-36; Steenhof and Kochert 1985 pp 6-16). There have been no recent counts of occupied red-tailed hawk nesting sites.

Ferruginous Hawk

In Idaho, ferruginous hawks nest in the southern half of the State and winter in small numbers in the south and southwestern counties (Stephens and Sturts 1998, p 20). They winter from southern Idaho south into Mexico (Sibley 2000, p124). They nest in trees and shrubs, on cliffs, pinnacles, rock outcrops, buttes, banks, slopes, and utility structures. In the NCA, they also nest on military towers and artificial nest platforms. They feed heavily on small mammals, but also eat birds, reptiles and insects. Ferruginous hawks are unique among the NCA's raptors in that they forage and nest selectively in grassland habitats (Lehman *et al.* 1996a, p 1). Many of their nests are within or near the OTA. Ferruginous hawk populations have not decreased after wildfires and in fact, may have increased slightly.

Rough-legged Hawk

The rough-legged hawk is found in the southern two-thirds and western edge of Idaho (Stephens and Sturts 1998, p 27) during the winter. They usually appear in the NCA in October and are gone by June.

Bald Eagle

See Special Status Animals Section 2.2.6.1.

Osprey

In Idaho, osprey nest over much of the State (Stephens and Sturts 1998, p 18), and in 1999 were found nesting when Idaho Power Company raised the height of utility poles across the Snake River below C.J. Strike Dam (J. Doremus 1999 field notes 26 Apr.). A second nest site is located along the Snake River north of the mouth of Castle Creek. In Oregon, 99+% of osprey's diet were fish, and on the Willamette River, 85% of fish taken were large scale suckers (USGS 2002, pp 1-2). No study has been done on what species of fish are taken by osprey in the NCA.

Merlin

In Idaho, merlins have been found breeding in northern and south-central Idaho (Stephens and Sturts 1998, p 21). Merlins are migrants through and winter residents in the NCA, feeding mostly on small birds.

American Kestrel

The North American kestrel population winters as far south as Panama (Ehrlich *et al.* 1988, p 244). In the NCA, kestrels nest in cliffs, buildings, nest boxes, and cavities in trees. Kestrels eat insects, reptiles, small mammals, and birds.

Peregrine Falcon

See Special Status Animals Section 2.2.6.1.

Gyrfalcon

When the population of Gyrfalcon's favorite prey (ptarmigan) reaches low levels, gyrfalcon will migrate south to find food. They also eat shorebirds, ducks, sea birds, grouse, rabbits and ground squirrels. They are seen across North America as far south as the northern contiguous States (Sibley 2000, p 132). Winter gyrfalcons have been seen several times since 1975, but generally are rare winter visitors to Idaho (Stephens and Sturts 1998, p 21).

Barn Owl

Barn owls breed and winter along the western Idaho border and south of the Snake River (Stephens and Sturts 1998, p 37). They nest in



cavities and crevices in cliffs and dirt banks, tree hollows, hay stacks, and buildings. In the NCA, most are cliff nesters. Their population fluctuates with weather and prey abundance.

Long-eared Owl

Long-eared owls nest across most of Idaho and winter along the western and southern edge (Stephens and Sturts 1998, p38). Long-eared owls eat mostly small rodents, but occasionally take reptiles, amphibians, and birds. In the NCA, long-eared owls nest in riparian areas in the nests of magpies, crows, and raptors. They may nest in cliffs in small numbers. After breeding they migrate out of the NCA to the mountains to the north and east (Ulmschneider 1990, p 59). In late October, long-eared owls return to the NCA where they form winter roosts of one or two owls up to 100 (Marks pers. com.). As many as 63 pairs of long-eared owls have nested in the NCA (Marks 1981 p 29). No recent monitoring has been done for this species.

Short-eared owl

See Special Status Animals Section 2.2.6.1.

Great Horned Owl

Great horned owls are found throughout Idaho (Stephens and Sturts, p 37), nesting in cavities



Great horned owl and magpie.
Cliffs with side canyons usually have a higher density of nesting great horned owls.

and on cliffs, in tree cavities and raptor, crow, raven and squirrel nests, in hollow logs, on the ground among boulders, and in barns and abandoned buildings. They feed on small rodents and mammals up to the size of porcupines and Arctic hare, birds up to the size of Canada geese and wild turkey, amphibians, reptiles, fish and scorpions. They also feed on smaller raptors. In the NCA, great horned owls nest in cliffs and trees. Along linear cliffs, pairs nest about two miles apart.

Northern Saw-whet Owl

These owls usually nest in coniferous or mixed coniferous/deciduous forests (Peterson 1990, p 202). In Idaho they nest or winter over the whole State



Saw-whet owl

(Stephens and Sturts 1998, p 39). In the NCA, saw-whet owls have been found breeding in nest boxes for several years since 1986. These boxes are in riparian areas and shrub-scrub steppe desert among native willows and cottonwoods, or Russian olives and black locust. They appear to breed during times of high small mammal populations.

Burrowing Owl

See Special Status Animals Section 2.2.6.1.

Western Screech-owl

In Idaho western screech-owls breed and winter along the western and southern edge of the State (Stephens and Sturts 1998, p 37). In the NCA, screech-owls are found breeding in woody riparian, woodland, and cliffs. They are cavity nesters that readily use nest boxes. They feed on small mammals, birds (especially in winter), and occasionally lizards, amphibians, fish, and insects.



Turkey Vulture

The turkey vulture is not a raptor, but because of body shape, habitat use, and flight characteristics, it is often mistaken for eagles or large soaring hawks. Genetic data show a clear relationship between “New World” vultures and storks (Sibley 2000, p 106). They are found throughout the NCA during spring and summer and nest in caves in cliffs, often the cave of choice is at the base of the cliff (J. Doremus pers. obs.). They feed on carrion as long as it is fresh (Bammann pers. obs.). Group roosts are found at Swan Falls Dam and the Bruneau Marsh (J. Doremus pers. obs.).



Turkey Vulture

Common Raven

The common raven is the largest songbird in North America, and is often mistaken for a bird of prey because of its large size, habitat use, and propensity to soar. They are found from deserts to mountain tops. They often scavenge or glean, but they also hunt live prey from insects to animals as large as ground squirrels. They nest on cliffs, in trees, and on utility poles, and less often on other man-made structures. They are one of the most common large nesting birds in the NCA. Winter roosts of more than 2,000 ravens have been seen (Engel *et al.* 1987, p 38).

Other Raptors

The red-shouldered hawk, snowy owl, and great gray owl have each been seen one time only in the NCA. The barred owl has been spotted four times (Doremus, pers. comm.).

Key Raptor Prey Species

Raptor prey includes a variety of species, such as insects, jackrabbits, geese and carp. Even fawn mule deer and pronghorn are taken by golden eagles on rare occasions. All raptors take a variety of prey, but some raptors are so dependent on certain prey species that the occupancy of nesting territories and productivity depend on the distribution and density of these prey species.

The term “keystone species” is used to note species that can dramatically alter the structure and dynamics of ecological systems and through predator/prey, competitive and mutualistic interactions with other species. By causing physical disturbance, keystone species can have a disproportionately large effect on habitat structure, species composition, and biochemical processes (Brown and Heske 1990, p 1705). In the NCA’s loess soils and in some lakebed sediments, the Piute ground squirrel is the keystone species in the NCA. In saline soils it may be kangaroo rats, but their populations have not been studied in the same detail as Piute ground squirrel populations.

The most important prey species for diurnal raptors in the NCA are Piute ground squirrels, black-tailed jackrabbits, and Nuttall’s cottontails. Other small mammals, including deer mice, montane voles, and kangaroo rats, are eaten mainly by nocturnal owls, but also by several diurnal raptors. A wide variety of small and medium sized birds are preyed upon by all the raptor species, but no single species is an important diet item. Reptiles are important prey of red-tailed hawks and are eaten in smaller numbers by many other raptors. American kestrels and burrowing owls take many large insects (Marti *et al.* 1993, pp 8-9). Swainson’s hawks also eat grasshoppers in late summer (England *et al.* 1997, p 9).



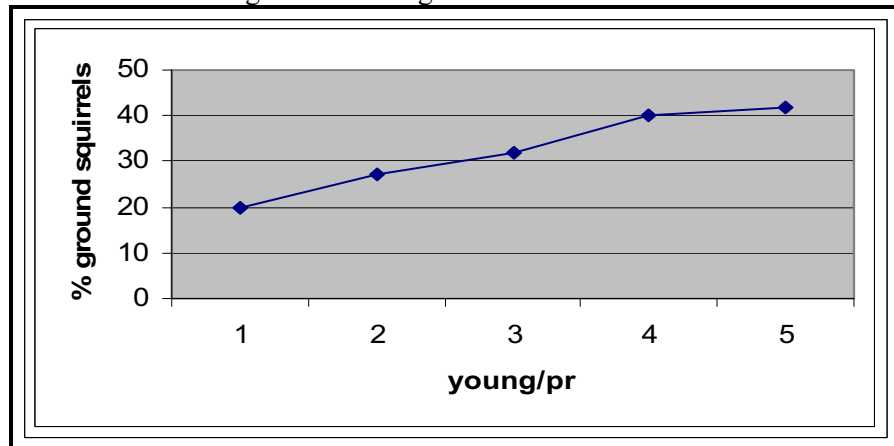
Piute Ground Squirrel

Piute ground squirrels, formerly considered to be a sub-species of Townsend’s ground squirrel (Hoffmann *et al.* 1993), are important prey for many raptors in the NCA. They are critical food of prairie falcons (Wildlife Figure 2.6) and important food for red-tailed hawks, ferruginous hawks, and other raptors and common ravens (USDI 1979a, p 82; Marti *et al.* 1993, p 8). Several mammalian and reptilian predators also feed upon Piute ground squirrels (Marti *et al.* 1993, p 9). In addition to their importance as raptor prey, these squirrels may increase primary productivity by loosening, aerating, and mixing soils (Yensen 2001, pp 1-3).



The most important prey species for diurnal raptors in the NCA are **Piute ground squirrels**. Almost every animal in the NCA could be considered a prey species.

Wildlife Figure 2.6. The Relationship of the Percentage of Ground Squirrels in the Diet of Nesting Prairie Falcons and the Number of Young Prairie Falcons Fledged Per Nesting Pair from 1984 – 1987 in the NCA.



From Holthuijzen 1989, p 36.

Piute ground squirrels are found in the Great Basin and Columbia Plateau of Utah, Nevada, California, Oregon, and Idaho (Yensen and Sherman 2003, p 14). They dig burrows for shelter and in the NCA, mostly on the north side of the Snake River (USDI 1979a, p 28), are usually found in conjunction with deep loess soils that can be excavated easily and do not readily collapse (Johnson and Melquist 1975, pp 164-165). A survey of the desert north of the Snake River from Hammett Hill Road to King Hill found ground squirrel and badger sign in abundance east to Bennett Mountain Road. The lack of suitable nesting

cliffs may account for the reduced numbers of prairie falcons nesting along this stretch of the Snake River. Both ground squirrel and badger holes are much less abundant east from Little Canyon Creek where the soil changes to very shallow clay over basalt.

Piute ground squirrels in the NCA are active during the day, but come above ground for only about six months or less in a year, emerging from torpor in January or February. In years when their food supply is adequate, they mate, produce young, double their body weight, and retreat underground to once again



undergo torpor in late June to early July when summer temperatures rise and the plants they depend upon for food dry up. Piute ground squirrels have one litter of up to 10 young per year. Their breeding chronology may have shifted during the past 20 years in response to climate change and/or habitat alteration (Steenhof *et al.* 2004, p 15). Long-term shifts in ground squirrel breeding chronology may have implications for raptors that depend on them for food.

Smith and Johnson (1985, p 174) found that Piute ground squirrels feed heavily on native and exotic grasses, but they also consume grass seeds, especially in late seasons of drought years (USDI 1979a, p 28; Van Horne *et al.* 1997, pp 527-528 and Van Horne *et al.* 1998, p 295). Drought affects squirrels more in altered grass communities than in native shrub habitats (Van Horne *et al.* 1997, pp 304-305). Although squirrel densities tend to be higher in exotic annual grass communities in years with high precipitation, ground squirrels in big sagebrush habitats had higher survival rates, higher densities, and higher productivity after drought than squirrels in grassland habitats (Van Horne *et al.* 1997, pp 304-305). In 2003, squirrels weighed more on sagebrush sites than in grassland sites (Steenhof *et al.* 2004, p12). Over the long term, shrub habitats clearly provide a more favorable and stable environment than grass habitats for squirrels (Yensen and Quinney 1992, p 269; Van Horne *et al.* 1997, pp 304-305 and Steenhof *et al.* 2004, p 16).

Black-tailed Jackrabbit

This hare is found in shrub and grasslands throughout the West where it undergoes population cycles of 7 to 12 year intervals where the ratio between peak population numbers and low populations can be as great as 135:1 (Anderson and Shumar 1986, p 154).

Black-tailed jackrabbits reach their highest densities in the NCA near big sagebrush and black greasewood stands (Smith and Nydegger 1985, p 701, and Knick and Dyer 1997, pp 75-84). From 1977 to 1989, black-tailed jackrab-

bit densities averaged 0.12/acre for all habitat types and 0.25/acre for big sagebrush habitats (Doremus *et al.* 1989, pp 91-92). Habitat for black-tailed jackrabbits has been significantly reduced since 1980 because of wildfires that burned sagebrush (USDI 1996, p 58). Densities during low population years (mid-1980s) ranged from 0.02 to 0.4/acre, and from 0.5 to 0.9/acre in high population years; peaks of the black-tailed jackrabbit population cycle have decreased from 1971 to 1996 (USDI 1996, p 56).



The black-tailed jackrabbit is an important part of the golden eagle diet and is eaten by other raptors as well (Marti *et al.* 1993, p. 9.)

Montane Vole

This small rodent is an important prey for many raptors, especially owls, kestrels, and northern harriers. Montane voles made up 43% of the biomass of prey fed to young saw-whet owls in 1986-1987 and from 1990-1993 and 24% of the prey biomass fed to western screech-owls in 1992 (Doremus and Marks 1988, p 691; and Rains 1998, p 37). Marks (1984, p 1529) found montane voles made up 16% and 15% of prey biomass in 1980 and 1981, respectively, in long-eared owl casts found during the breeding season. Marti (1988, p 1805) found that voles constituted over 55% of prey taken by barn owls in the NCA.

Montane voles generally occupy moist to wet habitats with thick grass or forb cover, including irrigated pastures and hayfields. They also occur in drier grasslands with forbs and sage-



brush, but usually in lower numbers. No information is available in regard to distribution or population densities in the vicinity of the NCA, but occurrence in raptor diets suggests these voles occur most commonly in irrigated alfalfa fields and pastures (Marks and Marti 1984, p 140).

Nuttall's Cottontail

Nuttall's cottontails, also known as mountain cottontails, are found across the southern half of Idaho and throughout the NCA where there is suitable habitat. Nuttall's cottontails are most often found in areas of tall shrubs, rock outcrops, broken canyons, riparian vegetation, agriculture, and talus. Their population can vary greatly over time but it is not known if this is a cyclic variation like that found in hares or a response to climatic conditions and disease. In 1976, cottontails made up about 18% of mammalian biomass and 13% of all prey biomass found in golden eagle nests, 5% of total prey biomass found in prairie falcon nests, and 17% of prey biomass found in red-tailed hawk nests (Kochert *et al.* 1976, pp 35-36). Cottontails are also eaten by rattlesnakes, long-tailed weasels, coyotes, bobcats, ferruginous and Swainson's hawks, ravens, great horned and long-eared owls, and occasionally western screech-owls.

Kangaroo rats

The Ord's kangaroo rat is found across southern Idaho, and the Great Basin kangaroo rat is found in southwestern Idaho (Burt and Grossenheider 1959, p 96). Both species are found in the NCA (Wildlife Figure 2.7). Ord's kangaroo rats are found in a wide range of habitats, while the Great Basin kangaroo rat is usually found in salt desert shrub habitat. Kangaroo rats are eaten by many of the NCA raptors; however, because these rodents are mostly nocturnal, they are more important in diets of owls (barn, long-eared, and great horned owls, in particular) than diurnal raptors (Marti *et al.* 1993, p 9). Even though they are mostly nocturnal, kangaroo rats are also taken by golden eagles, prairie falcons, red-tailed, ferruginous, and Swainson's hawks, American kestrels, and northern harriers, as well as by

rattlesnakes, gopher snakes, longnose snakes, long-tailed weasels, badgers, coyotes, and bobcats (Wildlife Figure 2.7).

Deer Mouse

The deer mouse is a common, ubiquitous mouse eaten by most NCA raptors (Wildlife Figure 2.7), but is important only in the diet of owls, especially long-eared and barn owls (Marks and Marti 1984, p 137). In the NCA, they appear to be the most common small mammal (USDI 1979a, p 32), and as such, are taken by almost every type of predator. Deer mice were over 6% of the biomass in the diet of barn owls (Marti 1988, p 1805). They were over 16% in 1980-1981 (Marks 1984, p 1529) and over 20% in 1988-1989 (Ulmschneider 1990, p 75) of the biomass in long-eared owl diets. They also made up 16% of prey biomass from nest boxes used by northern saw-whet owls in 1986-1987 (Marks and Doremus 1988, p 691) and 17% in 1990 to 1993 (Rains 1998, p 37). Eight percent of individual prey items found in six nest boxes used by western screech-owls in 1980 (Doremus and Marks 1982, p 53) and 11% of the prey biomass of nesting screech-owls in 1992 (Rains, 1998, p 42) were deer mice. They reach their highest population densities in canyon talus and riparian areas (220 to 324/acre). In upland habitats, they are most common in big sagebrush and mixed big sagebrush and winterfat (32 to 264/acre), and greasewood areas (22 to 282/acre) (USDI 1979a, p 33). Abundance of deer mice in burned shadscale habitats in the NCA was lower for at least one year after the fires (Groves and Steenhof 1988, pp 207-209). Deer mice densities tend to be lower in cheat-grass-dominated habitats than in native shrub communities (Gano and Rickard 1982, p 1).

Other Mice

Western harvest mice, house mouse (introduced), canyon mice, grasshopper mice and Great Basin pocket mice are found in the NCA. Western harvest and house mice were caught in riparian areas and along irrigation ditches; canyon mice were found in talus slopes, Great Basin pocket and grasshopper mice were widely distributed across the NCA

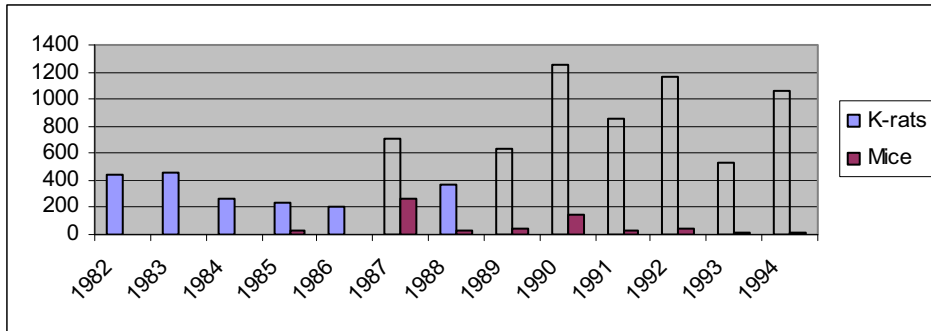


(Montan 1977, p 27). These species are taken in small numbers by most diurnal raptors, but may be important in the diet of northern harriers and kestrels. Western harvest mice, house mice, and Great Basin pocket mice contributed almost 28% of the prey biomass delivered to western screech-owl nests in 1992 and about 34% of the prey biomass delivered to northern saw-whet owl nests from 1990-1993 (Rains 1998, pp 37-38). Marks and Doremus (1988, p 691) found that these species made up ap-

proximately 43% of the biomass delivered to northern saw-whet owls in 1986-87.

Kangaroo rats and mice (Wildlife Figure 2.7) seen during spotlight transects from 1982 to 1994 are actual counts and do not represent the number of animals seen per ha. Year to year variability in the number of animals observed may represent actual changes in animal density or changes in the observer's sight ability.

Wildlife Figure 2.7. The Number of Mice and Kangaroo Rats (K-rats) Observed from 1982-1994 on Spotlight Transects In and Near the NCA.



The above data is from Snake River Birds of Prey Research Project Annual Reports: Johnson *et al.* 1982 p.34 *; Johnson *et al.* 1983, p 27*; Johnson *et al.* 1984, p 18*; Doremus and Schroer 1985, p 151; Doremus *et al.* 1986, p 140; Doremus and Bolln, 1987 pp 115-118; Doremus and Blew 1988, p 94; Doremus *et al.* 1989, p 93; Knick 1990, p 59**; Knick 1991, p 158**; Knick 1992, p 268**; Knick 1993, p 237**; and Watts and Knick 1994, p 224**.

* Mice were not counted.

** Transect locations were added and run both spring and winter.

Other Rodents

Yellow-bellied marmots, desert and bushy-tailed woodrats, Townsend's and northern pocket gophers, vagrant shrew, least chipmunks, muskrats, porcupines, eastern fox squirrels, Norway rats, whitetail antelope ground squirrels, and beavers are found in the NCA. All but the beaver are taken as prey by raptors. Norway rats and fox squirrels are introduced species.

Waterfowl and Shorebirds

As stated earlier, riparian areas along the Snake River Canyon, including TWMA, Borden Lake, Halverson Lake, and C.J. Strike

Reservoir provide habitat for a number of shorebirds and waterfowl.

There are one goose and 13 duck species that nest in the NCA. Two swan, four goose, and 26 duck species migrate through or winter in the NCA (Appendix 5).

The BLM and IDF&G share the management of the TWMA just north of Grandview, Idaho and Borden Lake, a marsh located immediately northwest of C.J. Strike Dam. Both sites are managed for waterfowl and upland game bird production. There are three ponds at the TWMA site that are fed by a waste water ca-



nal. The ponds were constructed by BLM and are maintained by the BLM, IDF&G, and Ducks Unlimited. An irrigated food plot of about 15 acres is found north of the TWMA. This plot is maintained by the IDF&G and Pheasants Forever and is planted with grain every 2-3 years. Shrub/grass cover around the ponds, reeds, rush, and cattails, and a few boxes and platforms in the ponds provide nest sites for several duck species. Many nest platforms are utilized by Canada goose each year.

Borden Lake marsh is a naturally enclosed basin where water from C.J. Strike Reservoir seeps to the surface. By the late 1980's the area had become a closed marsh without open water, excluding waterfowl. The IDF&G opened up the marsh by digging a series of channels. The extracted material formed dikes along the channels. Because this activity lowered the water table, additional water was needed to keep the marsh plants alive. A siphon was built from the reservoir to the marsh. The siphon fails during high winds when waves on the reservoir allow air into the intake, losing the siphon effect. Use of the siphon was discontinued in the early 1990's. Borden Lake provides nesting for ducks and geese. Several nesting platforms are found along the dikes.

The IDF&G manages some public land within the boundary of the C.J. Strike Wildlife Management Area (WMA). Most notable are the Bruneau Duck Ponds. This is a series of ponds built by the IDF&G that run parallel to Highway 78 about ½ mile east of Highway 51 on the south side of the Snake River. These ponds are operated to provide waterfowl nesting habitat. There are several nest platforms in the ponds that are utilized by geese. Water pumped from the Snake River runs through a series of ponds before reaching those on public land.

All of these areas are open to public hunting, but are closed to the public during the waterfowl nesting season.

The IDF&G and BLM are working to control noxious weeds in all of the above areas. Purple loosestrife, perennial peppergrass, Canada thistle, and white top are of special concern. Several insects have been released to reduce purple loosestrife, with some success. No biological controls for perennial pepperweed, Canada thistle, and white top are available at this time so herbicides are used for their control. Herbicides are applied by hand to reduce the likelihood of them entering nearby water.



Two black-necked stilts foraging in the Ted Trueblood Wildlife Management Area. This site is heavily utilized by migrant waterfowl especially in the spring.

Upland Game

Pheasants, California quail, chukar, gray partridge, and mourning doves are found in the NCA. Pheasants and quail are usually found near irrigated agriculture and riparian areas. Gray partridge are found in uplands near irrigated or dry land agriculture. Pheasants and quail nest in the TWMA, Borden Lake, Bruneau Duck Pond areas and other riparian/marsh areas. They also utilize the food plot at the TWMA.

Chukar are found along the canyon and near volcanic buttes in areas with rocky escape terrain and cheatgrass (Ehrlich *et al.* 1988, p 266) and are not associated with agriculture.



Mourning dove nests are found from tree branches to the ground. Seeds, including waste grain, provide most of their diet.

Nuttall's cottontail rabbits are a common mammal and are covered under Key Raptor Prey Species above (2.2.3.).

Although the NCA historically supported sage-grouse, the area has long been isolated from other sage-grouse habitat by agricultural, commercial and residential developments, highways, utility corridors, areas that have burned, and areas that have been unsuccessfully rehabilitated. Also, perennial and intermittent streams that once flowed across the NCA have been captured by reservoirs outside of the NCA, and thus, except for the Snake River, there is little or no surface water in the NCA. In addition, the NCA supports levels of recreation, military, and other uses that would preclude re-establishment of sage-grouse into the area, even if suitable habitat could be re-established. As such, there is little if any expectation that sage-grouse could be returned to the NCA, and it has not been identified as a priority sage-grouse management area.

Big Game

The loss of shrubs, native grasses, and forbs has greatly reduced habitat available for big game. Most of the NCA's ephemeral streams were captured by construction of the Indian Creek, Blacks Creek, and Mountain Home Reservoirs. As such, available range for big game, especially deer and pronghorn has been significantly reduced because of a lack of sur-



Mule Deer are found throughout the NCA, most often close to the Snake River and its tributaries and irrigated agriculture.

face water. Many habitats are dominated by cheatgrass or burr buttercup and other invasive weedy species that lack the nutrition of native grasses and forbs. Also, food and water for big game are further reduced when agricultural land is subdivided or no longer irrigated.

There are over 100 resident mule deer in the NCA. During harsh winters mule deer numbers may double or triple. A small number are legally killed each year during hunting season.

White-tailed deer were introduced into the C.J. Strike WMA in the 1980's. They are found in the Bruneau River bottoms in and near the WMA.

Pronghorn are found throughout the NCA. Their distribution is limited by lack of water and poor condition rangeland. During the warm months pronghorn are found near irrigated agriculture, where there is water and green feed available. During the cold months they are found across the table lands, especially where preferred kochia is available as forage. Currently there are about 50 resident pronghorn in the NCA. During the winter 200-300 pronghorn may be found in the area.

Elk are rare winter visitors to the NCA. During harsh winter conditions a few elk may come into the NCA from the north and east. It is unlikely that a resident elk population would ever become established in the NCA.

Moose have only been sighted in the NCA twice in the last 30 years.

Mountain lion have been seen in and near the NCA. There are resident lions in the area. (Dick Orcutt pers. com.).

Non-game

Two-hundred and eighteen birds, 49 mammal, 14 reptile, 4 amphibian, 25 fish species (Appendix 5) and an unknown number of invertebrates, that are not hunted or listed as SSS, have been found. These animals are not listed as species of special concern because their populations are stable, there is no threat to



their habitats, or so little is known about them or their habitat requirements that a special status designation cannot be made. These animals are no less important than the “listed” species. They have an integral part in creation of the soil and in plant and animal distribution and succession.

Fish

Aquatic habitat is home to 27 species of fish, including white sturgeon, the largest fresh water fish in North America. White sturgeon, redband trout and mountain whitefish are the only native game fish in the NCA, since the salmon and steelhead runs were blocked by downstream dams. Twelve species of exotic game fish have been introduced into the Snake River system. These include small-mouth bass, rainbow trout, perch, crappie and channel catfish. Carp, an exotic fish, may be the most common large fish in the Snake River. Eleven native fish are considered non-game fish including suckers, northern pikeminnow, dace, shiners and sculpin.

2.2.4 Geology

The NCA is located in the western Snake River Plain physiographic province, which is a northwest trending, fault bounded structural depression about 35 miles wide that extends from the Twin Falls area on the southeast to Hells Canyon on the northwest. The surface consists primarily of Quaternary basalt flows underlain by Tertiary fluvial and lacustrine sediments over 1,000 ft. thick. In the NCA, the Snake River has cut a deep canyon in the lake



Snake River Canyon wall showing the interbedded basalt and sandstone characteristic of the geology of the NCA.

deposits. The basalts have repeatedly filled the canyon over the past 100,000 years and subsequently been eroded by the Snake River, forming a new canyon. The Snake River Canyon is the predominant surface feature in the NCA and provides important nesting habitat for the raptor populations that inhabit the area. Geological resources will not be affected by any of the RMP alternatives and as such, will not be discussed further.

2.2.5 Paleontology

Paleontological resources are the fossilized remains of organisms that illustrate the biologic history of the earth. Fossils are preserved in sedimentary rocks and even igneous rocks in a few unique situations. Fossils can be the remains of plants or animals, or can reflect their actions, such as tracksites. Some fossils are microscopic in size such as single-celled animals or pollen. Macroscopic fossils can include leaves, petrified wood, shells of invertebrate animals, bones, teeth, tracks, feeding traces, coprolites, and burrows.

Description and Summary

Fossilized remains of fish, amphibians, birds and land mammals are found at widely scattered sites. Invertebrate animal fossils such as mollusks and plant remains in the form of petrified wood also occur. The Miocene Chalk Hills Formation and the Mio-Pliocene Glenns Ferry Formation contain most of the fossils. These sedimentary formations are the result of deposition into and around the margins of a large lake, referred to by some researchers as Lake Idaho, which existed in the western Snake River Plain for several million years. The thickness of the lake sediments in places

Hobby collection of common invertebrate or plant fossils by the public is allowed in reasonable quantities using hand tools.

The public is allowed to collect petrified wood without a permit for personal, non-commercial purposes. Collection of up to 25 pounds plus one piece per person per day, with a maximum of 250 pounds in one calendar year is allowed.



exceeds five thousand ft. Fossils of land mammals and birds occur in these same formations in sediments that were deposited on the lake margins and in the channels and floodplains of streams that fed into the lake. The diversity of the fossil fish and mollusk fauna, the size of individual fossil specimens, and the nature of specializations in the fossil fish indicate that the Chalk Hills and Glenns Ferry Formations must have been deposited in a large, long-lived lake. Fossils have also been found in the Pleistocene Bruneau Formation which mantles the lake deposits over much of the NCA and is composed of numerous basalt flows and interbedded sediments.

Collection of fossils from public lands is allowed with some restrictions, depending on the significance of the fossils. Collection of significant fossils, which includes all vertebrate and any designated plant or invertebrate fossils, can only be done by qualified researchers under BLM permit; however, no permits are currently authorized. Since the collection of paleontological resources is adequately administered through existing regulations, and since no issues have been raised concerning the resources, the management thereof will not be further discussed in the RMP.

2.2.6 Special Status Species

2.2.6.1 Special Status Animals

“Special Status Animal Species” is a broad category that encompasses endangered, threatened, and proposed, candidate; Types 2, 3, and 4 sensitive; and watch list species. Type 2 species are range wide or globally imperiled, while Type 3 species are Regionally or State imperiled. Type 4 species are peripheral to Idaho and include species that are generally rare in Idaho with the majority of their breeding range outside of the State. Currently the NCA has no proposed or Type 4 listed species. The NCA provides habitat for 43 special status animal species (Appendix 4).

In the NCA,

- 12% of the birds,
- 11% of the mammals,

- 22% of the reptiles,
 - 57% of the amphibians, and
 - 7% of the fish
- are SSS (Appendix 4).

The BLM and IDF&G agree to “Ensure, to the best of their abilities, that critical habitats and populations of sensitive species occurring on lands administrated by the Bureau will be managed and/or conserved to minimize the need for listing these animals as threatened or endangered by either federal or State governments in the future” (USDI 2003).

Endangered Species

Idaho Springsnail (Delisted 9-5-2007)

The Idaho springsnail, also known as the Homedale Creek springsnail, was listed as endangered on December 12, 1992 (Federal Register 1992). Although critical habitat for this species has not been designated, a recovery plan that included this snail was prepared in 1995 (US Fish and Wildlife Service (F&WS) 1995) and is still being used as a recovery guidance document. The Idaho springsnail was listed due to habitat fragmentation, river impoundment, water quality, and competition with the non-native New Zealand mudsnail (*Potamopyrgus antipodarum*; F&WS 1995). Critical habitat for the species has not been designated, and the current distribution of the species is in question.

Status and Distribution

The Idaho springsnail was historically found from Homedale (River Mile (RM) 416) to Bancroft Springs (RM 553) (F&WS 1995).



The **Idaho springsnail** has been found in lake habitats where summer temperatures are believed to exceed 71.6° F.



This species has declined due to degradation of habitat (e.g., water quality), and habitat fragmentation due to river impoundments and associated habitat changes (F&WS 1995). The target recovery area includes the main stem of the Snake River between RM 518 and RM 553. With the exception of locations within the Bruneau arm of C.J. Strike Reservoir, this species is not known to occur outside of the main-stem of the Snake River.

Surveys conducted by Taylor in 1982 placed the distribution of this species from Bancroft Springs downstream to C.J. Strike Reservoir (RM 495). Taylor (1982) stated that it had vanished from river areas below C.J. Strike Reservoir. Dianne Cazier Shinn, a former Idaho Power Company biologist, reported finding the species throughout its historic range, as far downstream as Weiser (RM 338) (Shinn, 2002). Recent Idaho Power Company reports (Stephenson and Bean 2003) include density estimates for known colonies of this species upstream of Grandview, C.J. Strike Reservoir (two locations), and Weiser, with densities ranging from zero to 1,460 snails per square meter, from surveys conducted in spring, summer, and fall of 2002.

Life History

Very little is known about the life history of the Idaho springsnail. The species is primarily found in permanent, unimpounded waters of the main-stem Snake River, although live specimens have been collected from three locations within C.J. Strike Reservoir; one colony within the Bruneau arm of the reservoir contains the highest recorded densities of this species. Frest (2002) noted that although the Idaho springsnail may occur in lake habitats, it requires moving water; this species is not known to persist in “slow water” habitats. This snail has not been found in other Snake River tributaries or in cold-water springs adjacent to the Snake River (Taylor 1982). The Idaho springsnail may spend some time as an interstitial dweller occurring on mud or sand with gravel-to-boulder size substrate, but may also be found on the surface of rocks and sometimes on aquatic macrophytes (Frest 2002). It

often attaches to vegetation (pond weed) in riffles. There is currently no conclusive information on the depth distribution of this species in the Snake River profile. It is believed that, on average, the Idaho springsnail lives for about a year, with females laying eggs between February and May, but the number of eggs produced per female is not known. Juvenile snails appear in the population between March and July. Laboratory studies have shown that Idaho springsnail are active in water temperatures ranging from 48.5° to 92.7° F (Lysne 2003), but that snails died within one week if temperatures exceeded 87° F. The Idaho springsnail has been found in lake habitats where summer temperatures are believed to exceed 71.6° F. It is not known how such elevated temperatures or other eutrophic conditions might affect this snail’s numbers, reproduction, or survival. Although their presence in warmer waters is noteworthy, this does not indicate that they can persist as viable populations under such conditions (Frest 2002). The Idaho springsnail has been described by most authors as being dependent on cold water of high quality (Taylor 1982, Frest *et al.* 1991). While this snail has been found, in one case in high densities, within C.J. Strike Reservoir, initial reports only record it from two (1.2%) of 168 sampled sites (Cazier 1997). The revised reports for these surveys do not provide sufficient detail to assess the abundance of the species within the C.J. Strike Reservoir. Additional information is needed to better understand the habitat requirements of this species.

Population Dynamics

There is a scarcity of information on the population dynamics of the Idaho springsnail. Idaho Power Company has provided some density estimates for some river colonies, but given the naturally patchy distribution and high variation in snail numbers, there are no good sample techniques established to provide confident estimates of population size or trends. In addition, there are no data to confirm the long-term persistence of known colonies. The colony at Bancroft Springs could not be detected over a 5-year period (1995-2000),



but was recently re-detected (Shinn, Supplemental, 2002). Other colonies have also been detected both within C.J. Strike Reservoir and in the Snake River downstream of that dam, but long-term monitoring of those colonies has not been conducted. The species is declining due to deteriorating water quality and fragmentation of previously continuous habitats with free-flowing waters by dams (F&WS 1995). There is evidence that a non-native snail, the New Zealand mudsnail, may compete with or otherwise negatively impact the Idaho springsnail. The mudsnail has rapidly expanded its distribution throughout the Snake River and shows a wide range of tolerance for water fluctuation, velocity, temperature, and turbidity. It competes directly for habitat with the Idaho springsnail (F&WS 1995). The mudsnail reproduces asexually, giving it a reproductive advantage over the Idaho springsnail, which reproduces sexually. To date, no population viability studies have been conducted for the Idaho springsnail.

Threatened

Bald Eagle (Delisted 8-8-2007)

The adult bald eagle is easily identified, as it is a large bodied, wide winged bird with white head and tail and a dark brown body. The beak, legs, and feet are yellow. It takes the birds 5-6 years to acquire adult plumage. The younger birds range in dark brown juveniles to mottled whitish and dark plumage in the sub-adults. Their large beaks give their heads an



Bald Eagle was declared endangered in 1978 and was upgraded to threatened in 1995.

elongated appearance and their wings appear wider than that of juvenile golden eagles. Adult eagles weigh from 4.4 – 13.6 pounds (lbs), average 9.5 lb.; males averaged 9 lbs. and females 11.6 lbs. (Johnsgard 1990 p144). Wingspan average is 6.5 feet and body length 2.5 feet (Sibley 2000 p 127).

Status and Distribution

The bald eagle was declared endangered under the Endangered Species Act (ESA) in 1978, and upgraded to threatened in 1995. Initial threats for the species being listed were related to the pesticide DDT and the subsequent effects it had on various avian species. Since the ban on DDT and protection under the ESA, the bald eagle is breeding in more States and the bald eagle population has been increasing in much of North America.

- In Idaho, it is likely that eagles arrive at their nest sites following spring thaw.
- Nest sites can be used by generations of eagles.
- Wintering eagles need relatively undisturbed perching and roosting trees near a food source.
- They prefer large trees for perching and roosting.
- They eat fish and to a lesser degree, mammals and birds.
- They commonly scavenge and also benefit from livestock carcasses.
- They are one of the few animals that can open a carcass, allowing other scavengers to feed.

The bald eagle occurs throughout most of Canada and the U.S., nesting mostly in the northern parts of its range (Buehler 2000, p 3). In Idaho, the eagle is found in 22 of 25 lati-long blocks during the breeding season and in 24 of 25 lati-long blocks during the winter (Stephens and Sturts 1998). Breeding eagles are concentrated in northern and eastern Idaho (Sallabanks 2002 pp 2-4). There are no known bald eagle nest sites along the Snake River/C.J. Strike Reservoir area. There were two occupied nest sites at Lake Lowell in the



Deer Flat Wildlife Refuge south of Nampa, Idaho (Sallabanks 2002, p 3). Lake Lowell is approximately 5 miles from the Snake River. Bald eagles are commonly seen all along the Snake River in the winter, and concentrate at locations like Lake Lowell and C.J. Strike Reservoir where there are large numbers of wintering waterfowl. There is a winter roost along the Bruneau River, northwest of Bruneau Idaho, in the C.J. Strike Wildlife Management Area (J. Doremus pers. obs.). The roost is in large old open cottonwoods.

Most bald eagles are observed along C.J. Strike Reservoir between Loveridge Bridge and Grandview. In addition to food, perching and roosting trees are important resources needed by bald eagles. The number of bald eagles observed during January midwinter bald eagle surveys has ranged from 11 to 37. During years of high jackrabbit numbers, they are seen hunting from utility poles over suitable habitat on the desert plateau above the Snake River.

Life History

One to four eggs are laid at intervals of 2-4 days, and incubation lasts for 34-38 days. Both the male and female incubate. The young weigh about 100 grams at hatching, and fledge in 10-12 weeks after hatching. They depend on their parents for food and protection for another 4-12 weeks. Movement of the young away from the natal area may depend on food supply, adult harassment, harassment from other species, and weather. The young go through several molts before obtaining adult plumage at five years of age. They may start breeding while in sub-adult plumage. Eagles move to open water when winter freeze begins, though groups of eagles may stay at iced over sites if there is a sufficient food supply. Breeding activity, including nest building and maintenance, occurs from September to May depending on latitude (Buehler 2000).

Population Dynamics

The bald eagle population has increased throughout most of the U.S. south of Canada. The ban on DDT, protection of nest sites,

hacking young into areas vacated in the 1950's and 60's, and cleaner water all have helped to return the eagles to vacated and new breeding areas. Breeding eagles in the southern portion of their range are not faring as well, as human populations make more demands on their environment. The number of both breeding and wintering eagles has increased in Idaho since the 1960's.

Candidate Species

Yellow-billed Cuckoo

The U.S. Fish and Wildlife Service (F&WS) received a petition on February 2, 1998 to list the yellow-billed cuckoo as an endangered species. On October 30, 2001 the F&WS chose not to list the species.

The range and population of the cuckoo have been substantially reduced across the western U.S. in the last 50 years. Historically, yellow-billed cuckoo have been found scattered in drainages in arid and semi-arid portions of Idaho. Yellow-billed cuckoos have only been observed recently on a few of the islands in the Snake River with tree overstory and shrub understory. A 2004 survey for the species in Idaho (USDI 2005b) found the cuckoo as a rare migrant and summer resident. There are no documented nests in southwestern Idaho. Several sites in the NCA may be suitable for development of yellow-billed cuckoo habitat (USDI 2005b, p 4). Breeding has been confirmed on the South Fork of the Snake River in lati-long 22 and in lati-long 26 in Minidoka County and breeding has been suspected in 6 other lati-longs (Stephens and Sturts 1998, p 36). The preferred habitat of the cuckoo is riparian woodlands that include cottonwood and willow. Their nesting home range may include 25 acres (10 hectares) or more of riparian woodland habitat. (F&WS 2002, p 2, yellow-billed cuckoo guidelines).

The yellow-billed cuckoo is considered a rare, sometimes erratic visitor and breeder in the Snake River Valley of southwestern Idaho. They have been heard on islands in and near the NCA.



Type 2 Rangewide/Globally Imperiled Species

Pygmy Rabbit

The pygmy rabbit is a sagebrush obligate that has been found from 2,900 ft. to over 6,000 ft. in elevation in southwestern Idaho. The pygmy rabbit is being considered for Threatened and Endangered (T&E) listing because of destruction and fragmentation of sagebrush habitat in the western U.S. This rabbit utilizes sagebrush year round for shelter and food.



It is likely that **pygmy rabbits** no longer inhabit the NCA.

In the NCA between 1984 and 1994, pygmy rabbits were found during spotlight transects in old (100 years +), dense big sagebrush stands around Initial Point (Doremus and Bolln 1987, p 119; Doremus and Blew 1988, p 96; Doremus *et al.* 1989, p 93; Knick 1990, p 59; Knick 1991, p 158; Knick 1992, p 268; Knick 1993, p 237; Watts and Knick 1994, p 224). This habitat burned in 1996 during the Point fire and has not recovered. One sighting of a pygmy rabbit was made during spotlight transects in the northeastern corner of the OTA. This habitat is still intact, but repeated searches, both during the day and by spotlight for the rabbits, have been unsuccessful. All remaining large patches of big sagebrush have been searched in recent years either on foot or by spotlight, with no sign of pygmy rabbits.

Greater Sage-Grouse

The greater sage-grouse is found in Washington, Oregon, California, Nevada, Arizona, New Mexico Colorado, Wyoming, Montana,

and Idaho (Sibley 2000, p 148). This region is spatially and temporally dynamic. In a discussion of the impacts of spatial and temporal habitat changes on sage-grouse, Miller and Eddleman (2001, p 1) state:

“During the past 130 years, significant changes in disturbance regimes have affected their habitat. Plant communities in existence today are unique from any other time period because of altered disturbance regimes, confounded by a continual change in climate. In some portions of their range, sage grouse populations have been reduced or eliminated from loss of habitat through land conversion to agriculture or shifts from perennial shrub grasslands to introduced exotic annual grasslands or pinyon-juniper woodlands. Spatial and temporal diversity significantly affect the quality of sage grouse habitat. Because of the diversity, of biotic and abiotic factors and land use history across the range of sage grouse; plant community structure and composition have responded differently throughout this region.”

The NCA is an excellent example of “significant changes in disturbance regimes”. Sagebrush stands are cut off from other sage-grouse habitat by agricultural, commercial, and urban development, rural subdivisions, highways, utility corridors, off highway vehicle areas, areas that have burned, and areas that have been “rehabilitated”. Also, perennial and intermittent streams that once flowed across the NCA are now captured by the Mountain Home, Indian Creek and Blacks Creek Reservoirs, and as such, except for the Snake River, surface water rarely flows across the NCA. In addition to the above, the NCA supports levels of recreation, military, and other uses that would preclude the viable re-establishment of sage-grouse populations, even if suitable habitat were available.





There are no known **sage grouse leks** in the NCA.

Only one sagebrush stand between Fossil and Sinker Creeks is connected across native shrub stands to occupied sage-grouse habitat. Much of the connecting shrub stands are salt desert shrubs, not sagebrush. As late as the 1940's there were active sage-grouse leks near Cinder Cone Butte, in the north central portion of the NCA. At that time, there were continuous sagebrush stands from south of Cinder Cone Butte north across the foothills to the Danskin Mountains and Bennett Hills. Even into the 1950's people would successfully hunt sage-grouse along Highway 30, between Boise and Mountain Home, Idaho (James Johansen, pers. com.). The closest known active sage-grouse lek south of the Snake River is at the headwaters of West Rabbit Creek (T-2-S, R-2-W, section 31) [Mike Mathis pers. com.] about six miles southwest of Murphy, Idaho. The closest lek north of the Snake River is about one mile north of Blair Trail Reservoir (T-4-S, R-10-E, section 18) [Tim Carrigan pers. com] about eight miles north of Glens Ferry, Idaho and 11 miles east of the NCA boundary.

American White Pelican

American white pelicans are found along the Snake River from Brownlee Reservoir to Blackfoot Reservoir, and on other lakes and reservoirs like Lake Lowell, and along tributaries of the Snake River like the Payette and Boise Rivers (Stephens and Sturts 1998, p 9 and Trost and Gerstell 1994, Table 4). In 1993, Trost and Ger-

The American white pelican is abundant during the summer along the Snake River, C.J. Strike Reservoir, and the ponds at the Ted Trueblood Wildlife Management Area.

stell (1994, p 22) found pelicans nesting at Minidoka National Wildlife Refuge, Blackfoot Reservoir, and Three Islands State Park near Glens Ferry, Idaho. Breeding age birds are seen every spring and summer but there are no known nesting colonies along the Snake River below Three Island State Park. As many as 360 pelicans have been seen at one time on the TWMA ponds and the adjacent Snake River (J. Doremus pers. obs. 18 July 2001). Even though hundreds of pelicans use the Snake River and nearby open water, it is unlikely that they will be able to establish a breeding colony, as there are no sites isolated enough from human disturbance and mammalian predation to provide suitable nesting habitat.

Northern Leopard Frog

The northern leopard frog is the most widespread amphibian in North America. It is found from desert lowlands to the high mountains (Stebbins 1966, p 76). Northern leopard frogs are found along the Snake River in Idaho, and have been widely introduced into the western States (Thomas, A. 2001, p 8). Their preferred habitat is swampy cattail marshes at lower elevations and beaver ponds at higher elevations. Leopard frogs have been greatly reduced or eliminated over much of their range (Thomas, A 2001, p 5). Munger, *et al* (1993, p 4) searched for amphibians around Mountain Home and the foothills to the east, and did not find any leopard frogs. Causes of this decrease are not known. Predation by the introduced bullfrog, exposure to toxic materials, collection for biological specimens, reduction in wetlands, poor quality wetland and riparian habitat, and climate change may combine to affect leopard frog abundance.

White Sturgeon

The largest remaining population, of white sturgeon is in the Columbia River Basin (Miller *et al.* 2004, p 1). At least a portion of the white sturgeon population in the Columbia River drainage went to sea before they were blocked by dams. The Columbia River Basin populations have been isolated behind 26 major dams and reservoirs. In the Snake River system, there are 12 dams between the Snake



River mouth and Shoshone Falls (Miller *et al.* 2004, p 4), the upstream limit of their range. The white sturgeon population above Brownlee Dam is isolated from those populations downstream in the Snake and Columbia Rivers. Impoundments reduce the amount of free flowing water, isolate populations, reduce spawning areas, and influence water temperature, dissolved oxygen, and annual discharge patterns. Irrigation dewatering appears to limit sturgeon spawning. Sturgeon poaching to collect their eggs for the caviar market has become an important factor in our efforts to sustain fish populations.

Redband Trout

Most redband trout populations are in isolated stream systems in the Columbia River Basin. (Stream Net 2001, p 1). It is not clear if any redband trout exist in the main stem Snake River and its connected tributaries or if these fish are hybrids with rainbow trout introduced from west coast populations. It may be that behavior or time of spawning keep the two sub-species isolated. Redband trout may be in the lower reach of Sinker Creek. Much of Sinker Creek's water is diverted for irrigation upstream of the NCA.

Type 3 Regional/State Imperiled Species Spotted Bat

Spotted bats are found in various habitats from desert to montane coniferous forests (Groves *et al.* 1997). They are known from the southwestern corner of Idaho including the NCA. Spotted bats have been heard or captured a few times and it is likely that they breed in the cliffs along the Snake River. The Snake River Canyon with its fissured cliffs and open water should be ideal habitat for them. There is some evidence that the bats eat moths, perhaps exclusively.

Trumpeter Swan

The Trumpeter Swan is an annual migrant in the NCA, but is not known to breed in southwestern Idaho. They are seen on the Snake River, C.J. Strike Reservoir, and the TWMA during migration and sometimes winter in the area. Wintering trumpeter swan were captured

in eastern Idaho and released in the NCA and other locations in the early 1990's in attempt to expand their winter range (Baskin 1993, p 76.).

Peregrine Falcon

This falcon was an endangered species in the U.S. until 1999 (Grossman and Hamlet 1964, p 394; and Hoffman 1998, p 20). Peregrine falcons are worldwide in distribution but are uncommon to rare migrants through the NCA. There are records of a pair possibly nesting at the confluence of the Snake and Bruneau Rivers in the 1940's (Nelson 1975, p 191). It is possible that the inundation of the marsh on the Bruneau Arm by C.J. Strike Reservoir covered the hunting area for the falcons. Prairie falcon densities and lack of prey have apparently kept peregrines from nesting in the NCA since the 1950s (USDI 1995b). Attempts to reintroduce peregrines by cross-fostering young peregrines in nests of prairie falcons in the NCA from 1977 to 1979 were abandoned when the Peregrine Fund decided it was not a successful technique

Prairie Falcon

See Fish and Wildlife Section 2.2.3.

Northern Goshawk

It has been petitioned for classification as an endangered species, but has not been listed. See previous discussion.

Ferruginous Hawk

See Fish and Wildlife Section 2.2.3.

Black Tern

Black terns are spring/fall migrants in the NCA and nest in deep emergent vegetation. The nearest nesting colony may be at Indian Hay Meadow on the eastern edge of the Duck Valley Indian Reservation, or in the marshes near the Owyhee River at Duck Valley. They feed mostly on insects and small fish caught over or in marsh and open water.



Calliope Hummingbird

The calliope hummingbird breeds in open montane forests, mountain meadows, and willow and alder thickets (Sibley 2000, p 300; Ehrlich *et al.* 1988, p 332). They feed on nectar, insects and tree sap and winter in Mexico (Ehrlich *et al.* 1988, p 300). The most difficult time for hummingbirds in southwestern Idaho is during the fall migration. During drought years, few flowers are available where the birds can feed on nectar or small insects. The Calliope Hummingbird is not known to nest in the NCA but probably migrates through the area.

Lewis' Woodpecker

Lewis' woodpeckers breed over much of Idaho (Stephens and Sturts 1998, p 41), and nest in open woodland and forest, including riparian woodland. These woodpeckers have not been found nesting in the NCA, and are rarely seen during migration.

Willow Flycatcher

Willow flycatchers are insect eaters, and usually nest in willow trees in swamps and thickets. Willow flycatchers have been heard during the breeding season at the mouth of the Bruneau River, the Bruneau Duck Ponds, and Gold Isle in the NCA (J. Doremus pers. obs.).

Olive-sided Flycatcher

Olive-sided flycatchers breed throughout most of Idaho (Stephens and Sturts 1998, p 44), but are migrants through the NCA.

Loggerhead Shrike

Over much of their range, loggerhead shrikes are becoming scarce or absent. They breed across southern Idaho and winter in small numbers in Southwestern Idaho (Stephens and Sturts 1998, p 47). The number of breeding shrikes in southern Idaho has been reduced by the loss of shrubs. Although loggerhead shrikes have suffered a serious decline throughout their breeding range over the last 50 years (Sauer *et al.* 2001), Woods (1994 p176) found them in higher densities and more productive where shrub/grass habitats were

still intact in Southwestern Idaho. These shrikes were common nesting birds in the NCA until large blocks of big sagebrush were burned outright or fragmented in the 1980's and 1990's (J. Doremus pers. obs.).

Sage Sparrow

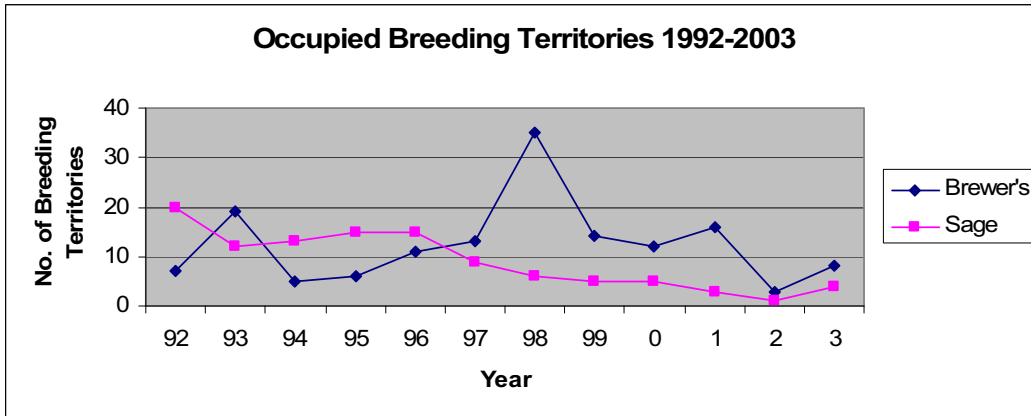
Breeding Bird Survey data from throughout the West indicate declining sage sparrow populations. Sage sparrows are shrub-obligates, breeding almost exclusively in sagebrush (especially big sagebrush), or sagebrush mixed with other shrubs (Braun *et al.* 1976, p 166). Knick and Rotenberry (1996, p 8) considered sage sparrows to be the most habitat specific of NCA passerines and predicted that they would be adversely affected by the current direction of habitat changes in the NCA. Surveys done at 119 sites from 1992 to 1995 found sage sparrows at only 36 sites (Knick and Rotenberry 1999, p 107). Not all necessary habitat features have been identified, as they are often absent from areas where the habitat otherwise appears suitable.

Brewer's Sparrow

Brewer's sparrows nest in arid brush-lands at lower elevations and in thickets at higher altitudes and latitudes (Ehrlich *et al.* 1988, p 588). In the NCA, they are common nesting sparrows in big sagebrush stands. However, their breeding population has suffered from the loss of shrubs and fragmentation of shrub stands. These sparrows prefer an abundance of shrub cover, and within a given habitat patch, the probability of their occurrence increases with increases in total shrub cover. Knick and Rotenberry (1996, p 7) found Brewer's sparrows at 83 of 119 sites studied from 1992 to 1995. Breeding Bird Surveys indicate a significant 5.1%/year decline in Brewer's sparrow in Idaho (Sauer *et al.* 2001), but Schoeberl (2003, p 25) considered it as common on his study area in southwestern Idaho near the NCA. Doremus (unpublished data) observed rapid fluctuations in the number of Brewer's sparrow breeding territories from 1992 to 2003 in a 60 acre site in an old big sagebrush stand (see Wildlife Figure 2.8 below).



Wildlife Figure 2.8. Brewer’s and Sage Sparrow Breeding Territories in Old Big Sagebrush Stand in the NCA, 1992 to 2003.



Great Basin Collared Lizard

The Great Basin collared lizard, also referred to as the Mojave black-collared lizard, is found throughout much of the southwest and intermountain west (Pope and Munger 2003, p 2). In Idaho, they are limited to the western Snake River Valley (Groves 1989, p 5), which is at the northern end of their range. They are an uncommon lizard that prefers areas with large boulders and open shrubs. The population suffers from cheatgrass invasion, which makes movement across open areas more difficult.

Longnose Snake

In Idaho, the longnose snake is limited to the lower Snake River Valley (Groves 1989, p 9). It is found in deserts, prairies and brush-land (Stebbins 1966, p 162), and is most abundant in areas of loose soils through which it can burrow. It has also been seen in tall grassy areas like the TWMA (J. Doremus pers. obs.).

Western Ground Snake

The western ground snake is the smallest snake in the NCA and is found in Idaho in the Lower Snake River Valley (Groves 1989, p 9) in arid and semi-arid habitat, especially near talus. It is usually associated with loose soil.

Common Garter Snake

The common garter snake is found over most of Idaho (Groves 1989, p 9), but is declining

over much of its range. It is usually found near water and swims readily. It is not known if the common garter snake exists in the NCA. Four years of snake trapping between 1975 and 1978 did not capture any common garter snakes (Diller and Johnson 1982, p 27).

Western Toad

The western toad is found across Idaho (Groves 1989, p.5). They are found in desert streams and springs, sagebrush, grasslands, woodlands, mountain meadows and irrigated agriculture. They may be found away from water. No western toads were caught in drift fence traps during a four year study in the NCA.

Woodhouse’s Toad

The Woodhouse’s toad (western sub-species) are found in sagebrush deserts, grasslands, desert streams, woods, valleys, floodplains, farms, and city backyards (Stebbins 1966, p 61). Thirty-three Woodhouse’s toads were caught in drift fence traps during a four year study in the NCA; twenty-two in riparian habitat and 11 in talus slopes (Diller and Johnson 1982, p 103).

Watch List

These are animals that are of concern because of loss of habitat or downward trend in populations somewhere in their range.



Yuma Myotis, Western Small-footed Myotis, and Western Pipistrelle

All are found in desert or shrub land habitat. The western pipistrelle and western small-footed myotis both utilize caves and rock crevices. The Idaho range of all these species includes the NCA (Bert and Grossenheider 1959, pp 17 and 23).

Barrow's Goldeneye

In Idaho, Barrow's goldeneye are found on the Snake River from Idaho Falls to Lewiston during the winter (Stephens and Sturts 1998, p17). They are uncommon on the Snake River in the NCA.

Swainson's Hawk

The Swainson's hawk is a common nesting species in some farmlands near the NCA in southwestern Idaho, but is less common in the NCA, probably because of the scarcity of trees it requires for nesting. Nesting of Swainson's hawks in the NCA depends strongly upon the availability of suitable nesting trees; fires, cattle grazing, and loss of water supplies are threats to the continued availability of suitable trees (Bechard 2000).

Burrowing Owl

In the NCA, burrowing owls prefer open grassland habitat, and nest in burrows dug most often by badgers. They feed on insects, small mammals, birds, and reptiles. Burrowing owl populations have declined over much of their North American range (Klute *et al.* 2003, p 13), but populations in and near the NCA appear to have increased following widespread wildfires in the 1980s (Steenhof *et al.* 2000, p 100).

Short-eared Owl

The short-eared owl is an opportunistic hunter, taking whatever small mammals and birds are most available. This is a species in serious decline over much of its range, but particularly in the northeastern U.S. (Holt and Leasure 1993, p15). Breeding Bird Survey data show a statistically significant 3.5% per year decline from 1966 to 2001 across the overall range

and an even steeper decline of 11.4% per year in Canada. In areas of southern Idaho, the Breeding Bird Survey shows significant declines (Holt and Leasure 1993, p15). Short-eared owls winter in the southwestern Idaho (Stephens and Sturts 1998, p 39), and are uncommon to rare breeders in the NCA. However, when higher than average winter/spring moisture causes grass cover to be more abundant in the NCA, the owls may become common to abundant breeders. (J. Doremus pers. obs.). In the NCA, short-eared owls nest mainly in grassland areas (Lehman *et al.* 1996b, p 6), and several pairs often nest close together in clusters (Lehman *et al.* 1998, p 252). Short-eared owls are known to be nomadic in search of adequate prey populations (Holt and Leasure 1993, p 3), and that characteristic may partially explain why the total number of pairs that nest in the NCA varies greatly from year to year. Densities may change by three-fold from one year to the next (Lehman *et al.* 1998, p 250).

Red-naped Sapsucker, Green-tailed Towhee, and Cordilleran Flycatcher

Red-naped sapsuckers, green-tailed towhees, and cordilleran flycatchers migrate through the NCA. All of these birds nest in Idaho at elevations higher than the NCA. They are all birds of the west, (Sibley 2002, pp 311, 324, and 475).

Wilson's Phalarope

Wilson's phalarope is a small shore bird that utilizes ponds, lakes and reservoirs for feeding and nesting. It nests in the NCA and many migrate through the area each year.

Long-billed Curlew

The long-billed curlew is a shore-bird that nests in arid habitat at times well away from open water. They were heavily hunted for personal food and money. They prefer grasslands for nesting and have increased in numbers in the NCA as shrub habitat has burned. Partners-in-Flight has identified the long-billed curlew as a bird of the highest continental concern (Pashley and Rich 2004).



Sage Thrasher

The sage thrasher population has been greatly reduced by the loss or fragmentation of sagebrush stands. They depend almost entirely on sagebrush habitat during the breeding season, but are occasionally seen in other shrub-steppe areas, such as greasewood and bitterbrush. Shrub size is very important for nesting, with the birds requiring sagebrush approximately one meter in height. Sage thrashers are not as sensitive as some shrub-steppe bird species to the effects of overgrazing and other types of habitat degradation (Reynolds and Rich 1978, p 580). Sage thrashers require large sagebrush.

Grasshopper Sparrow

The grasshopper sparrow is found across southern Idaho and onto the Columbia Plateau and northern Great Basin (Sibley 2000, p 486). In Idaho, it is found in the north, western, and southern third of the State (Stephens and Sturts 1998, p 64). It has been found in the eastern portion of the NCA during the breeding season.

Brewer's Blackbird

The Brewer's blackbird is a year-round resident in the NCA, and nests in shrubs, grass, riparian woodlands, shrubby areas, around habitations, and emergent vegetation (Ehrlich *et al.*, 1988, p 614).

Cassin's Finch

In Idaho, Cassin's finches nest nearly statewide and winter along the western and southern borders (Stephens and Sturts 1998, p 69). Cassin's finches nest in open conifers at higher elevations (Ehrlich *et al.* 1988, p 644). They are a migrant through the NCA.

Night Snake

Desert night snakes are found in southwestern and south-central Idaho (Groves 1989, p 9). It is one of the most common snakes in the NCA (Diller and Johnson 1982, p 1). The highest densities of night snakes were found near canyon rims and talus; however, about 30% of all night snakes were captured in shad-

scale/greasewood habitat (Diller and Johnson 1982, p 26).

Other Special Status Species.

Giant Fairy Shrimp

In 2006, the giant fairy shrimp (*Branchinecta raptor*) was identified as a new species, and was found in two locations in the NCA (Wildlife Map 2).

Little is yet known about the species. Adults can be almost 3.5 inches long, and are armed with hooks, combs, spines, and projections that help them detect, capture, and hold their prey. The shrimp has vestigial eyes because playa waters are normally brown with sediment. As such, it continually swims on its back, grasping with its large, hooked front legs at other creatures it encounters.

Giant fairy shrimp normally hatch rapidly after a significant rain, and complete their life cycle within a few days or weeks. When temporary water dries up, the shrimp die, and only their cysts remain on the playa bottoms. Playas may remain dry for years. The dormant shrimp cysts persist in the summer heat and winter cold until rain once again fills the playas. The cysts then hatch, producing a new population of shrimp.

The giant fairy shrimp occurs only in winter and early spring, often living under inches-deep ice. Usually by April, it dies and sinks to the bottom until winter rains again fill the playa.

No data exists to suggest that the giant fairy shrimp or its habitat is in jeopardy. One of the giant fairy shrimp playas is located within the Sunnyside Winter Allotment near the southwest corner of the OTA Impact Area. In 1987, BLM authorized the National Guard to construct a barbed wire enclosure to protect a cultural site from the impacts of off-road military maneuver training. This enclosure encompasses the playa, and will continue to provide interim protection for the giant fairy shrimp until BLM determines if additional measures are needed.



2.2.6.2 Special Status Plants (SSP)

The BLM maintains a list of plants identified as Special Status Plant (SSP) consideration because of threats to the species. Species on the list are given a numeric ranking (from 1 to 5) based on a number of criteria including risk of extinction and population size, distribution, and trend. Species with the greatest threat are assigned a ranking of 1 and those with the least threat are assigned a ranking of 5:

- **Type 1** – Federally listed species (Threatened, Endangered, Proposed, Candidate),
- **Type 2** – Rangewide/Globally Imperiled Species – High Endangerment,
- **Type 3** – Rangewide/Globally Imperiled Species – Moderate Endangerment,
- **Type 4** – Species of Concern, and
- **Type 5** – Watch Species (Species monitored to determine if removal from the list and/or elevation in status is warranted).

Current Status

Sixteen SSP species (Appendix 9 – Vegetation Table 3) are known to occur in the NCA including:

Type 1 = 1 Type 2 = 4 Type 3 = 6
Type 4 = 4 Type 5 = 1

These species occur in a variety of soil types representing many ecological sites, and are distributed throughout much of the NCA. Other than slickspot peppergrass, most SSP species occurrences are too small to locate on a map of the NCA, and as such, are not represented on Special Status Plant Map 1.

Limited inventory and monitoring data are available for many SSP occurring in the NCA; however, distribution maps and population status are updated regularly as new information becomes available. In general, BLM conducts two basic types of inventories for SSP:

1. Project-specific inventories, which assess the effects of BLM actions on any SSP that might be present in a project area as required under the NEPA; and

2. Species-directed inventories to better determine the endangerment status of particular SSP. Species-directed inventories have focused on Davis peppergrass and slickspot peppergrass. These species also receive additional management consideration.

Slickspot Peppergrass

In July of 2002, slickspot peppergrass was proposed for listing as endangered under the ESA. In 2003, in lieu of listing, the BLM Idaho State Office, Idaho Office of Species Conservation (ICDC), IDL, IDF&G, IDARNG, and several non-governmental co-operators (local ranchers) entered into a Candidate Conservation Agreement (CCA) for slickspot peppergrass that describes a specific set of management actions designed to slow or prevent the decline of this species. The CCA established guidelines and set policy for management of slickspot peppergrass throughout its range in southwestern Idaho, including the designation of 12 management areas that were set aside specifically for the management and protection of the species. Five of the management areas occur partly or wholly within the boundaries of the NCA (Special Status Plant Map 1). The CCA established three levels of conservation measures, one set to be applied throughout the range of the species, another set that was specific to one or more of the 12 management areas, and a third set that was targeted to specific priority element occurrences (EO). These conservation measures



Slickspot peppergrass is managed under a 2003 Conservation Agreement. There are currently 70 known elements of **occurrence**.



focus on what is believed to represent the most serious threats to the species; loss of habitat from fire, loss of habitat associated with fire suppression activities, loss of habitat from weed invasion, loss of habitat from off highway motorized vehicles, loss of habitat from the negative effects of military training and related activities, and the loss or degradation of habitat from livestock grazing.

For the past few years BLM and ICDC have monitored the population status of slickspot peppergrass using a standardized sampling protocol (Habitat Integrity Protocol), which was updated and incorporated into the CCA. There are currently about 70 known EOs for slickspot peppergrass. Monitoring transects have been established in all existing EOs and each transect is monitored annually or as funding allows.

On January 22, 2004, F&WS withdrew their proposed rule to list slickspot peppergrass as endangered, based on their conclusion that there was a lack of strong evidence of a negative population trend, and that the conservation measures contained in formalized plans (the CCA, and the Integrated Natural Resource Management Plans for the Orchard Training Area had sufficient certainty that they would be implemented and would be effective in reducing the risk to the species to a level below the statutory definition of endangered or threatened. In 2006, the BLM and F&WS entered into a Conservation Agreement (CA) that not only clarified and refined the 2003 CCA conservation measures to make them more effective, it also established an adaptive management program to ensure that ongoing management adapts to changing conditions or types and levels of land use.

Following their withdrawal of the proposed rule, F&WS was sued for failure to list slickspot peppergrass as endangered. In response to this litigation, F&WS agreed to collect additional information, reassess the status of the species, and issue another listing decision. On January 8, 2007, F&WS issued their decision

not to list the species as threatened or endangered.

Davis Peppergrass

Davis peppergrass has been monitored since 1987. Monitoring efforts occur jointly between BLM and IDARNG. Permanent transects have been established at several locations within the NCA and monitoring results for 2004 indicated a downward trend in the population. The major factor contributing to population decline is believed to be habitat loss resulting from weed invasion, most notably cheatgrass and Russian thistle.

2.2.7 Soil Resources

Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (S&Gs) (Appendix 3), address the need for maintaining and promoting soil stability, watershed health, and biotic integrity by having adequate amounts and types of ground cover to support infiltration, maintain soil moisture storage and transfer, and stabilize soils. There is also a need to provide for proper nutrient and energy cycling that promotes and sustains site productivity. Watershed health is the degree to which the integrity of the soil, vegetation, water, and air, as well as the ecological and hydrological processes of the ecosystem, is balanced and sustained.

- Soils in the NCA are somewhat diverse, as a result of variability in parent materials, climate and vegetative communities.
- Soils occur on nearly level to strongly sloping basalt plains and alluvial terraces, and were formed in alluvium and residuum derived from sedimentary materials and basalt.

Livestock grazing (both current and historic), wildfire regimes, military training activity, and OHV activity may affect soil stability, productivity, and watershed health.



Description and Summary

Soil profile characteristics have been influenced by wind-deposited materials high in carbonates and can be described as follows:

- Various forms of cementation (duripans) are common at differing depths in the soil profiles.
- Soils are shallow to very deep and well drained to excessively drained.
- Surface soil textures range from loams and silt loams to sandy loams.
- Sub-soils can vary from sandy loam to clay loam.
- The soils have an aridic or aridic/xeric soil moisture regime and a mesic soil temperature regime.
- The wind and/or water erosion potential ranges from low to high depending on surface texture and slope (Soil Map 1).

Soils information for the NCA was obtained from the National Resource Conservation Service (NRCS) soil surveys for Owyhee County (2003), Ada County (1980), Canyon County (1972), and Elmore County (1991).

An important component of many ecological sites in the NCA is the biological soil crusts, which play a particularly important role by protecting the interspatial areas from various forms of erosion. Occupying the interspatial area between larger plants, these crusts enhance soil stability, soil moisture retention, and site fertility (by fixing atmospheric nitrogen and contributing organic matter). The crusts also appear to limit germination and establishment of invasive annual grasses.

Crust cover can often be inversely related to the amount of bare ground, suggesting that a decline in crust cover produces an increase in bare ground (rather than an increase in vascular plants, with the exception of invasive annuals). In the NRCS “National Range and Pasture Book”, biological soil crusts are identified as a critical ecological attribute to be used as an indicator of rangeland health (USDA 2003). These crusts may serve as an early indicator of ecological site decline since they

appear to be more sensitive to disturbance from livestock and OHV activity than vascular plants. In the NCA, biological soil crusts are in a severely depleted condition.

Conditions and Trends

In areas of the NCA where historic livestock grazing has degraded the watershed, an early-to mid-seral or disturbed vegetative condition now exists. This trend is continuing throughout the NCA, and in combination with wildland fire, native vegetation is being altered and replaced by less desirable species, or in the worst case, exotic invasive and noxious species (USDI 1996b pp 25-28).

Only five out of the last 14 years (1993, 1995, 1996, 1998, and 2005) received average or slightly above average annual precipitation.

Areas in a degraded ecological condition are subject to increased erosion processes and impaired watershed health. As vegetative cover is depleted and species composition is changed, site productivity is reduced through erosion and lack of biological diversity (Blackburn *et al.* 1986, p 31-38). Continuation of this trend could lead to desertification in some areas. This phenomenon is already apparent in large areas where drought, in combination with historic grazing practices and wildland fire, has exposed soils to accelerated rates of wind erosion. Due to depleted surface soil, these areas are transitioning to a vegetative community dominated by weedy annual forbs.

Also affecting watershed health is the amount of mechanical disturbance to the soil surface resulting in compaction and structural breakdown. Soil disturbance has been shown to reduce vegetative composition, vigor, and productivity. Several studies on grazing intensity consider heavy livestock trampling to be more harmful to the watershed than excessive grazing (Warren *et al.* 1986a, pp 500-504, Warren *et al.* 1986b, pp 491-495).



2.2.8 Upland Vegetation

Introduction

Prior to European settlement, the NCA was dominated by three principal vegetation communities: Wyoming big sagebrush, winterfat, and shadscale, each with an understory of perennial grasses and forbs. These communities were often found as complexes or mosaics. Biological soil crusts, consisting of lichens, algae, and mosses, are

- The NCA is characterized by cool, moist winters and hot, dry summers.
- Average annual precipitation in the NCA ranged from 6.8 to 10 inches from 1992 to 2002.
- During drought, annual precipitation has been as little as 3 inches at some locations.

another important component of the ecological community (Yensen 1982).

Climate, livestock grazing, introduction of invasive exotic species, wildfire, recreation, and military activities had significantly altered vegetation communities in the post-European settlement period (Yensen 1982, p 39). In 1979, the NCA was still characterized by extensive shrub stands; however, the grass and forb understories have been significantly altered (Vegetation Map 1). After a series of large wildfires in the early 1980s and mid-1990s, shrub communities decreased significantly, and comprised approximately 37% of the NCA in 2001 (Vegetation Table 2.1, Vegetation Map 2). Vegetation in the remaining area is comprised primarily of invasive exotic annuals or seedlings.

Vegetation Table 2.1. Vegetation Community Composition for the NCA Based on 2001 Remote Sensing Data. Percentages Within Each Area are Based on the Acreage Totals for the Six General Vegetation Classifications.

Vegetation Community	Total Acres in NCA	Percentage of Area				
		NCA	Management Area 1	Management Area 2	Management Area 3	OTA
Shrub	154,400	32	43	31	24	31
Shrub/Cheatgrass	21,100	4	4	3	6	6
Seedlings	34,100	7	23	4	6	1
Sandberg/Cheatgrass	28,000	6	3	5	5	10
Cheatgrass/Exotic Annuals	223,200	47	27	52	56	51
Bare Ground	15,700	3	1	6	3	1

Influences/Disturbances

Climate

The NCA is characterized by cool, moist winters and hot, dry summers. From 1948 to 2004, average monthly maximum temperatures ranged from 41°F in January to 96°F in July at Swan Falls (Western Regional Climate Center). Precipitation in the NCA is variable depending upon location (Vegetation Map 3). Annual precipitation is strongly influenced by the rain shadow of the Owyhee and Boise mountain ranges and exhibits a pattern of in-

creasing annual precipitation from south to north. The majority of the precipitation occurs in the winter and early spring, with occasional summer thunderstorms.

Livestock Grazing

Intensive overgrazing by domestic livestock occurred in the general area from about 1870 to 1934. Decreaser grasses (dominant understory species that decline under intensive grazing) including bluebunch wheatgrass, Thurber's needlegrass, Indian ricegrass, and Great



Basin wildrye and many native forbs were drastically reduced or eliminated from the understory (Quinney 2000, p 93). Increaser grasses (understory species that increase under unfavorable grazing practices), primarily Sandberg bluegrass, became the dominant species. Some of the important shrub communities, like winterfat, were severely damaged, while others were eliminated.

Grazing intensity and timing are important factors in vegetation establishment and recovery. Grazing before seedlings become fully established, or at unsupportable stocking levels following treatments, particularly when combined with drought conditions, has resulted in outright seeding failures or seedlings that may initially have been successful, but subsequently became degraded or failed as a result of improper grazing. When moisture is limiting, as is often the case in the NCA, late spring grazing can prevent bunchgrasses from completing their normal growth cycle. When adequate soil moisture is present after livestock removal, bunchgrasses can still complete their growth cycle. Therefore it is possible to utilize grazing systems that ensure that bunchgrasses are able to set seed every year or most years. Little or no seed production and the lack of establishment of new individuals eventually results in attrition of the stand, as plants die and are not replaced. These openings allow cheatgrass and other undesirable exotic species to invade the site, further decreasing the ability of the stand to regenerate and improve itself (USDI 1995a, p.18).

Invasive Exotic Species

By 1900, a significant vegetation change had begun to occur in the area. Many species of exotic annuals were introduced into the area through contaminated crop seed and livestock feces. These species included cheatgrass and several exotic mustards (Yensen 1981, Pie-meisel 1951). Years with average and above average precipitation result in increased cheatgrass production, (as measured by plant density, plant size, and number of seeds). In addi-

tion, precipitation concentrated in late winter and early to mid-spring can provide moisture for heavy cheatgrass production, even though the total annual precipitation remains at or below average. These annuals then cure out and are much more flammable than the native species they replace. Exotic annual communities vary greatly with soil type, former vegetation community composition, and history of disturbance. Additional exotic annual species, including halogeton, bur-buttercup, Russian thistle, pepperweed and other mustards have also invaded disturbed areas.



Rush skeletonweed. Most known occurrences of non-native plants are associated with the Snake River Canyon and the western portion of the NCA.

Noxious weeds are non-native plants that have been designated “noxious” by State law because of their potential harm to the Idaho economy. The cost of controlling a noxious weed must be less than the harm the weed’s presence does to the State economy (Callihan and Miller 1994, pp vii-viii). No comprehensive noxious weed inventory has been conducted in the NCA. However, from 1996 to 2003, BLM specialists identified 10 noxious weed species in 146 distinct populations in the NCA (Vegetation Table 2.2). Most of these known occurrences were associated with the Snake River Canyon and the western portion of the NCA. Other noxious weed species known in the NCA include buffalobur, field bindweed, leafy spurge, puncturevine, yellow starthistle, and purple loosestrife.



Vegetation Table 2.2. Known Populations of Noxious Weeds and Estimated Area Occupied in the NCA, 1996-2003.

Species	Number of Known Populations				Total
	<0.1 acre	0.1-<1 acre	1-5 acres	>5 acres	
Camelthorn		2			2
Canada Thistle	1	5	1		7
Diffuse Knapweed		1			1
Perennial Pepperweed	7	12	2	1	22
Rush Skeletonweed	2	1			3
Russian Knapweed	8	17	4		29
Scotch Thistle		7	1	1	9
Spotted Knapweed		1			1
Tamarisk ^a		1			1
Whitetop	11	32	8	7	59

^a Currently considered an invasive species.

Wildfire

Prior to European settlement, wildfire frequency in the Snake River Plain was between 35 and 100 years for sagebrush communities and greater than 200 years for salt desert shrub communities (Vegetation Map 4) (USDI 2000b, p12). With the increase of exotic annuals, lightning-caused wildfires began to burn with greater frequency and intensity, and affected larger and larger areas. Seeds of exotic annuals are well suited to survive wildfire, while sagebrush, winterfat, and shadscale, are eliminated by wildfire. In years of average to above average precipitation, fine fuel loads (primarily annual grasses) increase significantly, which results in more acres burned by wildfire. Since 1979, when NCA vegetation was first mapped, the largest wildfires have occurred in the early 1980s, 1995, and 1996 (Vegetation Map 5). These large wildfire occurrences all followed years of average to above average precipitation and contributed significantly to the NCA's current appearance (Vegetation Table 2.3). The burn-reburn interval of the Snake River Plain ecosystem has been forever altered. Once-vast stands of native shrubs have been replaced by large stands of exotic annuals, such as cheatgrass.

Wildfires that are not immediately contained are generally larger and more intense than historic fires. Because of the change in the wildfire regime in much of the Snake River Plain, the rate of shrub loss has far exceeded shrub

regeneration (Whisenant 1990). Consequently, the vegetation in much of the NCA has transitioned from shrub-dominated communities to annual grasslands. Based on 2000-2001 Landsat imagery (USDI 2005c), it was estimated that only 37% of the NCA is currently occupied by big sagebrush, winterfat, or salt desert shrub communities (Vegetation Table 2.3, Vegetation Figures 2.1 and 2.2).



Wildfire near Initial Point. Approximately 50% of the NCA burned between 1980 and 2003, and 32% of that area burned two or more times. (Vegetation Map 5).

Fuel breaks were constructed prior to the mid 1990s, primarily to reduce the effects of human caused fires. Post-fire Emergency Stabilization and Rehabilitation (ESR) efforts were conducted in most burns in an effort to stabilize soils and establish desirable ground cover.



Mechanical Damage

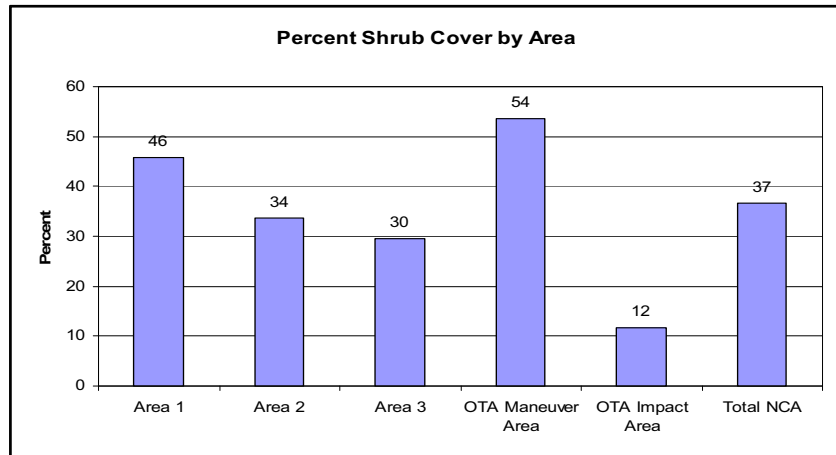
Vegetation and soils are damaged by a number of activities, including off-road recreation, military training activities, livestock trampling, firebreaks, habitat restoration projects, and utility and road right-of-way de-

velopments. These activities destroy biological soil crusts, reduce soil fertility, increase susceptibility to erosion, increase establishment of invasive/noxious plants, and fragment habitat.

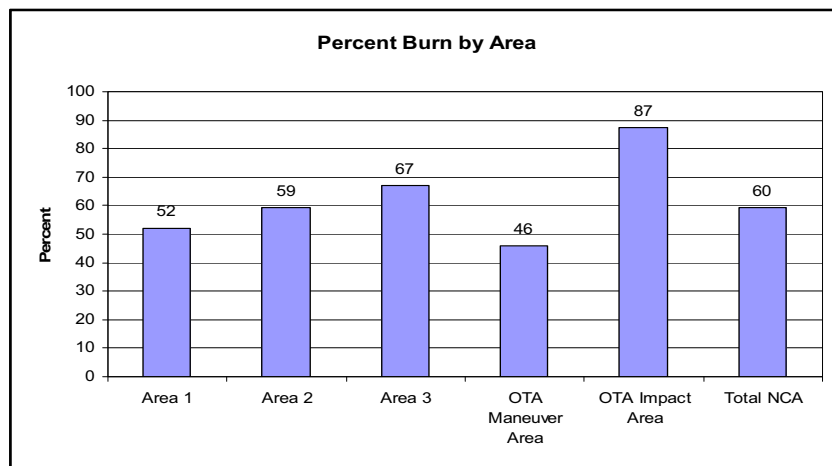
Vegetation Table 2.3. Changes in Spatial Distribution of Vegetation Between 1979 and 1998 for Area 1, Area 2, Area 3, and the Total NCA.

Vegetation Class	Area 1	Area 2	Area 3	Total NCA Change
Big sagebrush	-57.6%	-71.3%	-88.1%	-70.8%
Salt desert shrub	-56.7%	-87.7%	-95.9%	-84.9%
Winterfat	16.2%	-32.3%	36.5%	-3.0%
Herbaceous	256.6%	194.9%	440.3%	263.7%

Vegetation Figure 2.1. Percent Shrub Cover by Management Area.



Vegetation Figure 2.2. Percent of Area Burned Between 1957 and 2004.



Upland-Native Plant Communities

Wyoming big sagebrush communities, once the dominant shrub steppe community in the NCA, currently comprise approximately 17% of the area (Vegetation Maps 2 and 6). These communities have decreased between 57% and 88% between 1979 and 2001 in the different management areas (Vegetation Table 2.3). The communities occur in deeper loamy soils throughout the NCA; however, the largest contiguous stands occur in the northeast portion of Management Area 1. Sagebrush communities in the remaining areas occur in smaller, isolated patches interspersed with exotic plant communities. Approximately 77% of the sagebrush communities have an understory that is dominated by Sandberg bluegrass and/or other native perennial bunchgrasses, including bottlebrush squirreltail and Thurber's needlegrass. Cheatgrass and bur buttercup are usually present in these areas to some degree and may be co-dominants with native species. Biological soil crusts are an important component of these communities. Cheatgrass is the dominant understory grass in the remaining areas. Occasionally, stands of rabbitbrush (approximately 2% of the NCA), broom snakeweed, and Gardner saltbush occur in these soils.



Good quality sagebrush/bunchgrass habitat.

Winterfat communities occur on non-alkaline silty soils in lower precipitation zones north and south of the Snake River, and comprise approximately 6% of the NCA (Vegetation Maps 2 and 6). Winterfat communities increased in Management Areas 1 and 3 and decreased in Management Area 2 between

1979 and 1998 (Vegetation Table 2.3). This community is dominated by winterfat, with an understory of Sandberg bluegrass and other grasses, and such forbs as larkspur, globemallow, and evening primrose. Occasionally there is a patchy overstory of spiny hop sage.

Salt desert shrub communities occur on alkaline soils in lower precipitation zones north and south of the Snake River and comprise approximately 9% of the NCA (Vegetation Maps 2 and 6). These communities decreased between 57% and 96% from 1979 to 1998 in the different Management Areas (Vegetation Table 2.3). Salt desert shrub communities are dominated by shadscale, with varying amounts of bud sagebrush, spiny hop sage, and other shrubs. Perennial bunchgrasses and several species of forbs form the understory. Common forbs include globemallow, larkspur, evening primrose, and hairy wild cabbage.

Native-perennial/exotic-annual grass dominated communities comprise approximately 6% of the NCA, occurring most extensively in the northwest portion of Management Area 3 and in scattered locations in the other management areas (Vegetation Map 6). These communities are co-dominated by Sandberg bluegrass and cheatgrass and occur on a variety of soils. They are primarily the result of wildfires in shrub communities that had relatively intact Sandberg bluegrass understories.

Influences/Disturbances

Wildfire

Remnant shrub communities generally have not been influenced by wildfire within the last 50 years; however, shrub communities where cheatgrass dominates the understory or communities that are adjacent to cheatgrass dominated communities are highly susceptible to being eliminated by wildfire. Sandberg bluegrass is somewhat resistant to wildfire because it becomes dormant relatively early in the year. However, repeated wildfires in these community types could potentially reduce or eliminate Sandberg bluegrass where inadequate ground cover results in soil loss (primar-



ily by wind erosion) and lowered site productivity.



All wildfires in the NCA are aggressively suppressed.

Livestock Grazing

Perennial grasses are most susceptible to livestock grazing during their critical growth period in the spring. The critical growth period varies by species and may extend throughout the growing period for some species, such as Sandberg bluegrass (Kimball and Schiffman 2003). Vigor and productivity decrease and species can be eliminated in areas that receive concentrated use or continual growing season use without rest or deferment. During periods of low cheatgrass production, native shrub and grass communities may receive greater use levels than are appropriate for maintaining these communities. Increased forage consumption negatively alters the nutrient, energy, and hydrologic cycles. Mechanical damage (crushing/breaking) to sagebrush may occur in areas where livestock are concentrated, such as salt grounds, watering sites, or areas where livestock are gathered and sorted.

Invasive/Noxious Species

Invasive and noxious species more readily establish in areas where perennial grasses and/or biological soil crusts are reduced or eliminated because of lack of competition for moisture and nutrients.

Mechanical Damage

Native communities are most susceptible to mechanical damage because their native biological soil crusts have not as yet been compromised. Activities, such as livestock trampling, and off-road recreational and military

vehicle activity compact soils, destroy soil structure, and damage and/or destroy vegetation. The elimination of vegetative cover allows invasive exotic species, especially noxious weeds, to become established. The agents causing the damage are often the vectors for noxious species.

Exotic Plant Communities

Cheatgrass and other exotic plant dominated communities comprise approximately 25% and 22% of the NCA, respectively (Vegetation Map 6). These communities have increased between 195% and 440% from 1979 to 2001 in the different management areas (Vegetation Table 2.3). The communities occur throughout the NCA on a variety of soil types and are generally associated with areas where wildfire and/or other disturbances have eliminated shrubs and perennial grasses. The transition from a vegetation state dominated by cheatgrass to one dominated by Russian thistle, halogeton, or bur buttercup is characterized by a severe loss of soil through wind erosion resulting in reduced site productivity. An additional 3% of the NCA, primarily in the southwest portion, is classified as bare ground.

Influences/Disturbances

Wildfire

During periods of above average precipitation, increased cheatgrass production can result in high fuel levels within these communities. Wildfire return intervals may be as low as 3-5 years during these periods. The continuous, rapid burning fuels often allow wildfires to carry beyond the boundaries of the exotic communities into adjacent shrub dominated communities, thus further reducing the NCA's overall shrub cover.

Livestock Grazing

In most years, livestock grazing has a limited impact on exotic annual plant communities. However, when reduced forage production results from below normal precipitation, excessive removal of annual vegetative cover has led to reduced spring soil temperatures, reduced water-holding capacity, delayed seed



germination, and increased soil loss from wind/water erosion.

Invasive/Noxious Species

Cheatgrass germination and productivity varies significantly with annual fluctuations in temperature and in the timing and amount of precipitation. Production can decline significantly during drought periods. During periods of low cheatgrass production when ground cover is scarce, soils are highly susceptible to erosion. Soil erosion reduces site productivity which can alter site potential making restoration more difficult. Where this occurs, there can be a transition to an even less desirable community where weedy exotic annual forbs (Russian thistle, halogeton, bur buttercup) dominate. This has occurred in highly disturbed areas of the NCA, especially near the Mountain Home Air Force Base.

Mechanical Damage

In areas that have degraded to a cover of annual grasses and forbs, further soil disturbance makes the site more conducive to invasive and noxious weeds, which further increases the pace of habitat degradation.

Seeded Communities

Thousands of acres have been seeded since 1948, with about 7% of the NCA having been treated since 1995 (Vegetation Map 6). Seedings have been used to improve livestock forage production, to improve wildlife habitat, to create greenstrips, to stabilize and rehabilitate areas affected by wildfire, or to restore perennial grasses.

Seeding plantings to improve livestock forage occurred prior to the 1970s. The sagebrush overstory was removed (primarily through the use of chemicals) and the treated area was seeded with crested wheatgrass. These treatments were generally located in the eastern portion of the NCA.

Firebreaks (greenstrips) are linear areas (usually along major roads) where fire resistant vegetation has been established for the purpose of slowing fire spread and facilitating

wildfire suppression efforts, thereby potentially reducing the rate of loss of remnant shrub communities and other high-value resources. Approximately 3,300 acres of greenstrips were established between 1987 and 1994; however, drought conditions, lack of maintenance, and other factors resulted in a low success rate in establishing perennial grasses.



Seeding equipment used for emergency stabilization and restoration projects.

About 7% of the NCA has been reseeded since 1995.

Fuel breaks are used to slow fire spread and improve fire suppression.

Prior to 1990, most reseeded projects involved plowing and seeding. However, since 1990, post-fire emergency stabilization rehabilitation (ESR) seedings have typically been accomplished in the fall with a rangeland drill. Crested wheatgrass was the primary non native perennial grass species used until the mid-1990s, when more hardy species, such as Russian wildrye and Siberian wheatgrass were included in the seed mix. Sagebrush seeds have been broadcast onto many seedings since the mid-1980s. The success rate of ESR efforts depends on a variety of factors including timing and amount of precipitation, type and viability of plant materials used, and application methods. By the late 1990s, approximately one-third of ESR efforts were considered successful (soil stabilization occurred, invasive/noxious weeds were controlled, and vegetation communities returned to pre-fire conditions or better). An additional one-third was considered partially successful (movement toward, but not fully achieving, some or



all of the objectives). These areas would be expected to remain in a relatively static condition with proper management, but would require further treatment to be considered successful. One-third of treatments were unsuccessful and would require restoration efforts to establish desirable plant species.

Few habitat restoration efforts have been attempted in the NCA. In addition, efforts to re-establish shrub cover have had limited success primarily because of drought conditions.

Influences/Disturbances

Wildfire

Seeded communities are generally resilient to wildfire; however, repeated burning and/or improper post-fire livestock grazing can reduce or eliminate bunchgrasses. Reducing the cover of bunchgrasses makes the seeded communities more susceptible to the establishment or increase of invasive and noxious species. Shrubs that have become re-established in seeded communities are eliminated by wildfire.

Livestock Grazing

Reintroducing grazing into seeded pastures prior to complete re-establishment or in numbers too high for vegetation to support has potentially degraded or destroyed many otherwise successful seedings.

Invasive/Noxious Species

Cheatgrass and some other exotic annual plants can take advantage of short bursts of moisture to germinate, grow and mature. This gives them a distinct advantage over perennial plants, whose seeds will either not germinate, or will die from lack of moisture following germination.

Precipitation

Rehabilitation of burned shrub stands through reseedling has had mixed results and has generally been unsuccessful during periods of drought. Big sagebrush and winterfat are native shrubs used in range seedings. Generally, their seeds are viable for up to three years, but

droughts that last more than a year are likely to kill these seeds. Droughts also kill perennial shrubs and grass seedlings, by desiccating them before they are large enough to store sufficient energy reserves in their root systems. Prolonged droughts can also kill established perennial plants by depleting their energy reserves. Energy depleted plants are more susceptible to disease.

2.2.9 Water Quality, Riparian and Wetlands

In 1972, Congress passed Public Law 92-500, the federal Water Pollution Control Act, more commonly called the Clean Water Act (CWA). The goal of this act was to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" (Water Pollution Control Federation 1987). Federal agencies are responsible for water quality on lands they manage. Water quality best management practices are those practices that are the most effective, practicable, and economic means of preventing or reducing the amount of pollution from non-point sources, which are defined as sources that cannot be pinpointed but that can be best controlled by proper soil, water, and land management practices.

Water Quality

The CWA and the programs it has generated have changed over the years as experience and perceptions of water quality have changed. The CWA has been amended 15 times, most significantly in 1977, 1981, and 1987. One of the goals of the 1977 amendment was to protect and manage waters to insure "swimmable and fishable" conditions. The CWA requires that States and Tribes restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 USC § 1251.101).

States and Tribes, pursuant to Section 303 of the CWA, are to adopt water quality standards as necessary to protect fish, shellfish, and wildlife while providing for recreation in and on the waters whenever possible. Section 303(d) of the CWA establishes requirements for States and Tribes to identify and prioritize water bodies that are water quality limited



(i.e., water bodies that do not meet water quality standards).

States and Tribes must publish a priority list of impaired waters every two years. For waters identified on this list, States and Tribes must develop a total maximum daily load (TMDL) for the pollutants, set at a level to achieve water quality standards. This assessment addresses water bodies that were placed on the "303(d) list" in the Mid-Snake River/Succor Creek Sub-basin and the King Hill-C.J. Strike Sub-basin.

The Sub-basin Watershed Advisory Group (WAG) and the designated agencies played a significant role in the TMDL development process. The WAG and the designated agencies were involved in developing the allocation processes, and their continued participation will be critical while implementing the TMDL.

The IDEQ Mid-Snake River/Succor Creek Sub-basin Assessment and TMDL (IDEQ 2004) and the King Hill-C.J. Strike Sub-basin Assessment and TMDL (IDEQ 2006) each provide a summary for 303(d) listed waters, some of which occur in the NCA (Water Quality Map 1). Summaries include current water quality status, pollutant sources, and control actions in the watershed to date. While not a requirement of the TMDL, DEQ performs assessments to ensure impairment listings are current and accurate. The TMDL is a plan to improve water quality by limiting pollutant loads. Specifically, a TMDL is an estimation of the maximum pollutant amount that can be present in a water body and still allow that water body to meet water quality standards (40 CFR § 130). Consequently, a TMDL is water body and pollutant-specific.

In the Mid-Snake River/Succor Creek Sub-basin Assessment (HUC 17050103), TMDLs were developed for nutrients and dissolved oxygen for the Snake River. Sinker Creek was previously listed for temperature, sediment, and flow alteration. However, the final TMDL established standards for temperature and

sediment, but de-listed flow alteration. Corder Creek was de-listed for sediment.

In the King Hill-C.J. Strike Sub-basin Assessment (HUC 17050101), TMDLs were developed for sediment and nutrients in the Snake River and for nutrients and dissolved oxygen in C.J. Strike Reservoir. Bennett Creek was de-listed for unknown pollutants.

Because the final authority to administer water quality compliance and determine TMDLs is held by DEQ and EPA, it is beyond the scope of this RMP.

Riparian and Wetlands

Riparian areas include approximately 96 miles of Snake River shoreline, including the Bruneau Arm of the C.J. Strike Reservoir, and almost five linear miles of perennial streams, including Bennett Creek, Sinker Creek, and Rabbit Creek, together with several Snake River islands, Bruneau Duck Ponds, Borden Lake, TWMA, several seeps and springs, and some wetland areas which were artificially created by irrigation return flows. With the exception of TWMA and localized segments of the Snake River with dense noxious weed infestations, riparian areas are generally in proper functioning condition and are operating within their capability. Capability is defined as the highest ecological status a riparian-wetland area can attain given political, social, or economic constraints (USDI 1993). These constraints are often referred to as limiting factors.

Upstream of C.J. Strike Dam on the Snake River, the modified stream flow regime, resulting from water impoundment, has inundated historic floodplains under reservoir backwaters. The Snake River no longer functions as a lotic (flowing water) system; instead, the reservoir slack waters have created a lentic (standing water) system. C.J. Strike Reservoir is not used to store water on a seasonal basis; rather, inflows and outflows are close to equal on a daily basis. Reservoir draw-downs for a typical day are 0.3 ft. (Idaho Power Company). As such, the water level in



C.J. Strike Reservoir is generally maintained at or near full reservoir elevation, and this consistent water level has aided development and maintenance of a vigorous riparian obligate plant community (emergent wetland) along the shoreline.

Areas previously occupied by woody upland vegetation are now dominated by riparian species, including hardstem bulrush, cattail, and sedge communities, together with sporadic occurrences of younger-aged native and non-native shrubs and larger trees occurring further inland. Several islands totaling approximately nine acres exist in the reservoir below Loveridge Bridge. Approximately 200 acres of islands are found above Loveridge Bridge in the reservoir's backwaters. Some of these islands have increased in surface area due to silt accretions on the downstream end of the islands. Accretion was especially rapid in 1993 following a large landslide into the Snake River below Bliss, Idaho. Most of the islands are in functioning at risk category with strong to moderate upward trends.

Because the water level in C.J. Strike Reservoir is maintained at a near constant level, inflows and outflows are close to equal on a daily basis. Downstream of the reservoir, however, the volume, timing, and duration of stream flow in this free-flowing section of the Snake River fluctuates significantly as a function of the amount of water being released from the dam at any given time for power generation. The amount of water released from the dam is ultimately controlled by the collective operations of several large upstream hydroelectric, irrigation, and flood control reservoirs (Milner, Minidoka, American Falls, Blackfoot, Jackson Lake, and Palisades), and a natural annual hydrograph no longer occurs here. To further complicate matters, several large irrigation pumping diversions upstream of C.J. Strike Dam remove even more water during the irrigation season (April thru November). BLM has no jurisdiction to control stream flow, timing, or volume of water discharge in the Snake River.

Tailwater fluctuations below the reservoir can be pronounced as flows and are adjusted hourly to accommodate power demand. Peak electrical demands generally occur over a three-hour period. Turbine tailwater discharge is increased in response to peak demand which results in water levels fluctuations of about three feet. A study (Blair 1997, p 73) on behalf of Idaho Power Company quantified the effect peaking flows have on frequency of riparian vegetation. The study concluded that an area ranging in size from 28.3 to 40.7 acres was devoid of riparian vegetation as a result of peaking flows.

The typical flood return interval above bank-full level is 1.6 years in natural stream systems (Rosgen 1996, pp 2-3); however, the benefits from periodic disturbance caused by passage of large ice jams and flooding flows, including sediment recruitment, entrainment and deposition, nutrient delivery, and seed dispersal, occurs only rarely below the reservoir, most recently in 1996.

Most of the free-flowing Snake River segments are moderately entrenched so riparian areas are generally narrow (less than 30 ft.), with wider areas occurring where tributary deposition, tributary mouths, point bars, islands, Bonneville Flood deposits, and low lying terraces are found.

Aerial reconnaissance (Tarter 2003) and review of aerial photographs of the Snake River from C.J. Strike Reservoir to Swan Falls Dam, indicates island and Snake River bank vegetation consists of four basic habitat types:

- 20% Forested Wetland,
- 40% Scrub-Shrub Wetland,
- 30% Shore and Bottomland Wetland, and
- 10% Emergent Herbaceous Wetland.

Snake River riparian areas are generally vegetated by a diverse mix of native and exotic plant species. Native species include cattails, phragmites (a non-native genotype of phragmites is invading North America and is considered an invasive weed in many areas),



sedge spp., reed canarygrass, bulrush spp., grasses and forbs, willow spp., currant, rose, poison ivy, and dogwood. Native and exotic trees are also present, and include cottonwood, western juniper, tree of heaven, green ash, silver maple, boxelder, poplar, locust, netleaf hackberry, and skunkbush sumac. Where the Snake River is entrenched, the steep banks may have little or no hydric vegetation except for coyote willow, and instead, are often occupied by xeric upland species, such as greasewood, sagebrush, and skunkbush, that are often uncharacteristically large and vigorous due to their proximity to water. Where banks and flats are exposed during low water in summer, cocklebur, a moderately poisonous annual weed, is abundant.

Noxious weeds are present along most Snake River riparian zones and may represent the most severe and immediate threat to the biological health of riparian areas and wetlands in the NCA. Noxious weed species include: perennial pepperweed, purple loosestrife, poison hemlock, whitetop, Russian knapweed, Canada thistle, Serbian pea-shrub, and likely many others.

In some areas noxious weeds are the dominant vegetation and have severely damaged the biological functioning condition of riparian areas and wetlands. This is particularly a problem at TWMA where large areas are occupied by purple loosestrife and perennial pepperweed. Functioning condition is functional at risk on an estimated 60% of lentic areas within TWMA because of weed infestation. BLM weed specialists have released golden loosestrife beetle, an introduced predator of purple loosestrife which may naturally control this destructive obligate hydric weed; however, there are no effective predators available to control the expanding infestation of perennial pepperweed, an aggressive weed species that occupies a much broader range of riparian habitats and soil moisture regimes. Chemical treatments with the herbicide Telar, mowing, and tillage are the only reasonably effective suppression methods currently available. Perennial pepperweed stands were successfully

burned in the TWMA in late winter, 2003. Burning was followed by an overlay application of contact and systemic herbicide (Telar). Further herbicide treatment and seeding will continue annually until weeds are sufficiently suppressed and replaced by desirable vegetation. Tamarisk, a weedy shrub, is also present along some riparian areas.

Lotic (flowing water) Condition and Trend

To assess current stream health, methods developed by BLM in cooperation with NRCS and USFS (USDI 1998, p 125) were used which place the biological (plant life) and hydrological (physical) functioning condition of streams into the following five categories:

- **(PFC)** proper functioning
- **(Risk U)** functioning at risk with an upward trend
- **(Risk S)** functioning at risk with static trend
- **(Risk D)** functioning at risk with downward trend
- **(NF)** non-functioning condition.

All streams with perennial flow regimes were examined and rated for functioning condition. Some intermittent (seasonal flow regime) and ephemeral (flowing only in response to rainfall and snow melt) stream segments were examined to determine if flow regimes verified delineations on National Wetlands Inventory maps (1996). Streams were not rated for functioning condition if obligate hydric vegetation was not present.

Overall, 95% of Snake River lotic segments were in PFC, and 5% exhibited Risk D trends resulting from noxious weed infestations. Snake River islands downstream of C.J. Strike Reservoir were all in PFC. Rattlesnake, Bennett, and Sinker creeks were also in PFC; however, a segment of Corder Creek was in Risk D condition, the result of perennial pepperweed infestation.



Lentic (standing water) Condition and Trend

Methods developed by BLM in cooperation with NRCS and USFS were used to assess current wetland health (USDI 1999a, p 109.). The five functioning categories used in lotic assessments were also used for lentic systems; however, the assessment criteria were modified somewhat for standing water environments.

Trueblood Wildlife Management Area

This area is co-managed by BLM and IDF&G for the benefit of waterfowl, upland game birds, wading birds, and songbirds. Trueblood Wildlife Management Area (TWMA) provides an outstanding nesting and brood-rearing resource for resident birds, and a rest and foraging area for a large variety of wading birds, shorebirds, and other migratory bird species. Riparian functioning condition inventories were first performed at the TWMA in 2002 and about 40 acres of wetland was rated functioning at risk with downward trend due to rapidly expanding areas with noxious weed infestations. Following two years of successful weed abatement and seeding efforts by BLM the 40 acre tract was reassessed in February 2005, and rated functioning at risk with strong upward trend.

Water enters the TWMA from an irrigation drainage canal and a roadside ditch that carries flood irrigation return flows from agricultural lands upstream of the wetland complex. The water is then distributed through the wetland and into three ponds. Levels of *E. coli*, nutrients, and sediment are often extremely high in waters entering TWMA; however, Idaho DEQ water quality standards for non-point-source pollution do not apply to waters flowing in artificial conveyances such as ditches, canals, pipelines, or constructed wetlands (Mike Ingam, IDEQ pers. com.).

A recent study conducted by Idaho State University (ISU) (Pappani and Inouye 2003, pp 20-21) revealed that from March 23, 2002, to March 23, 2003, a total of 221 tons of total suspended sediment (TSS) was conveyed into

the wetland via the supply canal. About 19% of the sediment precipitated on the pond bottoms and canal; the remainder was discharged into the Snake River. In addition, large quantities of sediment bedload were discharged into the system, but the volume was not quantified in their study. The ponds and canal will eventually require dredging operations to remove sediment and retain the open water areas.

- The 237 acre TWMA was constructed in 1982.
- It is composed of about 55 acres of open water in three ponds with 182 acres of associated wetland and upland sites.
- The area is not managed as a wildlife preserve, and is regularly hunted for a variety of upland game birds and waterfowl during the open hunting season.
- The area is closed to public access during the spring nesting season (April thru July).

Of chemical pollutants, 61 tons of nitrogen, and 4 tons of phosphorus were brought into TWMA via the supply canal. Nutrient uptake and removal varied depending on the water flow path through the wetland complex. On average, 21% of nitrogen and 40% of phosphorus received, by mass, was removed from water that remained in the primary canal, and did not pass through the wetland complex. However, 67% of total suspended sediment (TSS), 45% of nitrogen, and 60% of phosphorus that entered the wetland complex through one of two available flow paths was removed before being discharged into the Snake River.

Concentrations of total coliform bacteria ranged from 388 colony forming units (CFU) to 85,800 CFU, while *E. coli* concentrations ranged from 0 to 8,600 CFU. The ISU study recommended that an additional pond be constructed, which would enhance the effectiveness of natural water treatment within the wetland complex, and also recommended introducing prescribed fire to periodically remove



aboveground biomass, increase light infiltration, and free nutrients, which would invigorate the plant community and increase nutrient cycling and uptake efficiency by plant life.

At present, portions of the TWMA are in a decadent state as a result of many years without fire. Areas that once supported vigorous plant communities are now reduced to dense, decaying accumulations of biomass where little, if any, light can penetrate. Fire is an essential natural component of healthy wetlands, and is necessary if wetlands are to sustain themselves over time.

Borden Lakes Game Management Area

This 255-acre area is made up of Snake River frontage below C.J. Strike Dam and a marsh on the north side of the Snake River below the dam that receives seepage from the reservoir. The basin in which the lake sits was used as a clay source for the dam core when it was constructed in the early 1950s. The pool at Borden Lake filled after completion of the dam in 1952. Between 1952 and 1987 the lake became a marsh filled with sedges, rushes, and cattails. There was no open water available for waterfowl loafing or nesting. The IDF&G proposed channeling the marsh to provide open water. The channeling and island building was completed in 1988. An 8-inch siphon was built from the reservoir to the marsh to increase water depth so the marsh habitat would be maintained. The siphon process was unsuccessful and since that time, the marsh has shrunk in size from over 30 acres to less than 10. The former marsh area has now become infested with Canada thistle and perennial pepperweed. Roughly five acres of lentic riparian habitat at Borden Lakes rated functioning at risk with downward trend due to weed infestation, the remainder was in PFC. In its new operating license order for C.J. Strike Hydroelectric Project No. 2055-010, issued August 4, 2004, Article 413, Idaho Power Company was directed by the U.S. Federal Energy Regulatory Commission to provide “for the continued supply of water to Borden Lake Game Management Area (GMA) in an

amount sufficient to support the wildlife habitat goals of the GMA.”

The loss of emergent vegetation has reduced the number of nesting northern harriers to two or three pairs. Before the channel/island construction, 8-20 pairs nested in the marsh. The marsh also provided nesting and roosting places for several other species of birds. While use of the area by these birds has been greatly reduced, the area does produce many waterfowl since the channels provide open water. The islands have been overrun by tamarisk, an invasive exotic shrub/tree that does not provide habitat as productive as the native willows. The forested area at the west end of the marsh is being invaded by Russian olive trees.

2.2.10 Visual Resource Management (VRM)

This system, explained in BLM Manual 8400, places landscape units into classes that indicate the overall significance of the visual environment and establishes management objectives for determining the degree of acceptable visual change within a landscape. The VRM objectives for an area are used to evaluate the visual compatibility of a proposed project and to determine if mitigation measures are needed to reduce or eliminate visual impacts. Definitions of the four visual management class objectives are found in the Glossary. The VRM system has two visual classes for public land, an inventory class, and a management class.

The Visual Resource Management system was developed to classify and manage visual landscapes.

Inventory Class

The inventory class is assigned through an objective process, in which Inventory Class I is assigned to areas such as wilderness, wild sections of national wild and scenic rivers (W&SR), and other congressionally and administratively designated areas, where the landscape has a natural appearance without man made intrusions.



Inventory Classes II, III, and IV are based on a combination of scenic quality, sensitivity level, and distance zones. Explanations of each of these are given below.

Management Class

Management classes are assigned during the land use planning process. The assignment of visual management classes is ultimately based on the management decisions made in the planning document and may not necessarily match the inventory class.

A visual inventory of public lands in the NCA was completed in 1980 and, although the visual landscape has changed since that time, the inventory has not been updated. Management classes identified since 1980 are shown on VRM Map 1, and the number of acres in each management class is summarized in the following table.

VRM Table 2.1. Existing Visual Resource Management Classes in the NCA.

Class I	Class II	Class III	Class IV
10,300 acres	21,400 acres	205,700 acres	246,300 acres

A portion of the former Birds of Prey Natural Area and parts of the Oregon National Historic Trail are Class I management areas (VRM Map 1).

Class II management areas cover the remaining part of the old Natural Area, the area around Bruneau Dunes State Park, and a small area around C.J. Strike Reservoir.

Class III areas include the western portion of the NCA, buffer zones along Interstate Highway 84, State Highways 51, 67, and 78, and buffer zones along Simco Road and around C.J. Strike Reservoir.

The remaining central portion of the NCA and small areas in the eastern section are managed for Class IV objectives.

Changes that have occurred in the NCA since the 1980 visual resource inventory include:

- In 1982, a 500 KV transmission line was constructed, which traverses the north and west portion of the NCA.
- New facilities associated with the OTA (Christmas Mtn. Tower, Snake River Training Facility, Ammunition Supply Point, etc.) have been built.
- In 2003, power poles along Swan Falls Road were replaced with towers three times higher.
- Many new structures (houses, storage buildings, U.S. Ecology waste storage site, etc.) have been built on private lands within and adjacent to the NCA boundary, creating a visual impact to the surrounding public lands.
- Visual impacts to the landscape from illegal off-highway vehicle use and cross-country military traffic have increased.
- In addition, natural and human-caused wildfires have changed the vegetative component of the NCA’s landscape.

Three major visual components are inventoried and evaluated in the determination of VRM classes:

- scenic quality,
- visual sensitivity, and
- distance zones.

Scenic Quality

Scenic quality is defined as the degree of harmony, contrast, and variety that influences the overall impression of a landscape. The NCA contains high-quality scenic areas associated with the Snake River Canyon, with exceptional visual value because of variety and harmony.

Modifications can affect scenic quality by either complementing or detracting from the visual landscape. Of greatest concern are modifications that depreciate scenic quality, such as power transmission lines, gravel pits, communication sites, unauthorized off-road vehicle use areas, and illegal dump sites.



Visual Sensitivity

Visual sensitivity is the degree of public concern toward scenic quality and toward existing or proposed visual change within a landscape. Sensitivity levels increase as one moves from the upland desert areas to the Snake River Canyon. The large number of visitors in the western portion of the NCA and along Interstate 84 and State Highways 51, 67, and 78 also increase the sensitivity level of those areas.

Distance Zones

Distance zones refer to the distance from an observer to the target landscape. This distance affects the observer's ability to detect individual landscape elements and changes. Because of the number of travel routes and use areas, much of the NCA is visually accessible. The topography of the area creates two dominant view sheds; the upland desert of the Snake River Plain, and the Snake River Canyon.

The visible areas of the upland desert consist primarily of middleground and background distance zones. Landscape modifications in the middle and background regions of these areas are less noticeable to the casual observer.

In contrast, the confined nature of the Snake River Canyon creates distance zones of primarily foreground and middle-ground. Since areas that are closer have a greater effect on the observer, these areas require the most attention in analyzing and mitigating visual impacts.

The combined effects of scenic quality, sensitivity, and distance zones place a large portion of the NCA in VRM classes with moderate tolerances for modification (VRM Class III and IV). However, there are areas, primarily associated with the Snake River Canyon and along the Oregon National Historic Trail, that have little tolerance for visual impacts (VRM Class I and II).

2.2.11 Wild Horses and Burros

Approximately 3,400 acres of the 51,000 acre Black Mountain Wild Horse Herd Management Area occur in the NCA west of Highway 78 in Owyhee County. Due to the significant amount of off-road vehicle activity, wild horses generally do not use this portion of the NCA, with only about one stray horse being observed each year.

2.2.12 Idaho Army National Guard

The Orchard Training Area (OTA) is located in the NCA approximately 13 miles south of Boise. The two main access routes to the OTA are Pleasant Valley Road, directly south from Gowen Field, and Orchard Road, which leads southwest from Interstate 84. The OTA is located primarily in Ada County, with a small portion in Elmore County.



Military training first occurred on the Snake River Plain in 1941 during World War II when the Army Air Corps established three practice-bombing ranges.

General support facilities for OTA operations, as well as the Idaho Army National Guard (IDARNG) headquarters, are at Gowen Field, located on the south side of the Boise Municipal Air Terminal outside the NCA. Gowen Field is an Air National Guard installation on which the Army National Guard is a joint tenant. The IDARNG State Area Command



Headquarters and its sub-commands are located on Gowen Field.

The IDARNG OTA includes approximately 138,500 acres of BLM-administered federal and State land (Lands Map 1). Acreage figures throughout the IDARNG section in this chapter will include both BLM and State lands. From the World War II era until the 1970s, public lands affected by military training activities extended to the Snake River Canyon. Over the years, however, training activities were moved away from the Snake River Canyon to minimize potential impacts to the raptors that nest along the canyon.

Military Mission

The mission of the OTA is to provide:

- a training area for National Guard and Reserve Forces and where compatible, to other government and civilian organizations;
- administrative assistance, facilities, logistical, and training areas to support units conducting annual and inactive duty training;
- ranges and facilities for small arms and crew-served weapons qualification;
- Maneuver Areas suitable for training heavy armor and mechanized units;
- artillery, gunnery, and small arms training;
- AH-64 Apache attack helicopter gunnery training; and
- organizational and direct support maintenance facilities.

Potential training days (one soldier day training) average per year from 1997 through 2003 in the OTA is as follows:

- Area A (Alpha) = 1,744 training days with 20% of the training
- Area B (Bravo) = 2,209 training days with 25% of training
- Area C (Charlie) = 3,388 training days with 38% of the training
- Area D (Delta) = 1,795 training days with 17% of the training.

Total average training days are 9,136 with the number of soldiers trained fluctuating each year, however, the general trend has been a slight increase. IDARNG Map 1 shows training areas.

Training Area History

During World War II the area was used as a bombing training area by the Army Air Force. In 1953 the IDARNG reached an agreement with BLM that provided a 5-year permit for military use between June 1 and September 30. When this permit expired in 1958, a one-year renewable permit was signed and was renewed each year thereafter. In 1964, the U.S. Marine Corps Reserve Unit in Boise was also granted authority to train on the OTA.

In the early 1970s, the BLM prepared an environmental analysis (EA) for the renewal of the military Special Land Use Permit. Although the EA did not assess the impacts of military training on the environment, the size of the training area was reduced to protect more sensitive areas, particularly land that adjoined the Snake River Canyon. In 1979, BLM and IDARNG signed a Memorandum of Understanding (MOU) to authorize their continued military use of the OTA. The MOU includes a provision requiring that it be reviewed at least every five years for the purpose of addressing new issues or incorporating new requirements as needed. The MOU was first modified in 1985, and again in 2002. This latest amendment extended the term of the MOU to 30 years, and provided for subsequent amendments following completion of the NCA RMP to incorporate those RMP decisions that may affect operational aspects of the OTA. One of the objectives of the MOU is to ensure the safety of the general public, BLM, and military units using the OTA. The MOU requires IDARNG and BLM to mutually develop and maintain law enforcement Standard Operating Procedures (SOP), which include actions providing for the cooperative protection, security, and safety of the resources and people on the public land in the OTA.



Military Training Activities & Natural Resources

Current training in the OTA is primarily conducted by IDARNG units, with National Guard and Reserve units from other States permitted on a space available basis. The MOU excludes active duty military units (such as Mountain Home Air Force Base) from training on the OTA except in support of the IDARNG. Approximately 8,000 to 10,000 soldiers train on the OTA each year. The primary military training period extends from April through July; however, there is seldom a week when there is not some type of training being conducted somewhere on the OTA. Most of the training involves firing weapons on established ranges. On occasion this may include parachute drops of personnel or equipment, which is approved by the BLM on a case-by-case basis. All live weapons firing is conducted in the 53,000 acre Impact Area which is closed to the public for obvious safety reasons. Within the Impact Area is an approximate 3,400-acre site, called the Artillery Impact Area, which is the primary target area for artillery. As such, the Artillery Impact Area contains the bulk of the unexploded ordnance found within the larger Impact Area (IDARNG Map 1).



The OTA contains one of the largest most sophisticated automated tank ranges in the United States. This range accommodates gunnery training for Abrams Tanks, Bradley Fighting Vehicles, and Apache Helicopters.

The 85,500 acres surrounding the Impact Area are available for use by the IDARNG for military maneuver training. However, only a portion (approximately 35%) of the 85,500 acres is used for off-road maneuver training. This area is also used for livestock grazing and dispersed public recreation.

To protect shrubs, heavy maneuver exercises are voluntarily restricted to non-shrub areas. Light maneuvers are allowed in shrub areas, but must avoid heavy shrub stands. Firing pads and lanes on established ranges have been stabilized by gravel or cinders. Repeated wheeled and tracked vehicle passes over the same area can alter vegetation composition or destroy vegetation and turn the soil structure to a flour-like consistency and expose it to wind erosion. Convoy movements are restricted to established roads to minimize this impact and training is scheduled to avoid excessive use of any one area.

Assembly areas are located in annual grass areas. Access to areas by established roads must be possible, particularly with sites that require a heavy flow of traffic. No vegetation may be cut for camouflage. Placement of chemical toilets and trash collection containers follows the same criteria.

One five-acre site on State land is the only excavation area available for combat engineers to practice building tank traps and other surface disturbing activities. Excavation activities have the potential to disturb archaeological sites and cause soil disturbance that destroys native vegetation and opens these areas to invasion by exotic annuals.

Temporary drop zones have been authorized in the past on a case-by-case basis. These are approved only after adequate environmental documentation, and after appropriate mitigation measures have been established and are determined to be consistent with the enabling legislation and MOU.



Natural Resource Management

Natural resource management began on the OTA in 1987 with the implementation of the Integrated Training Area Management (ITAM) program. This Army wide program established vegetation monitoring and developed educational materials to train soldiers how to protect the environment while accomplishing their training mission.

The IDARNG, as both a federal and a state agency, is required to comply with the same environmental laws and regulations as other federal land management agencies. Department of Defense (DoD) and Department of Army regulations and policies provide further implementation guidance. Included in this guidance is the requirement for the IDARNG to implement an Integrated Natural Resource Management Plan (INRMP) for the OTA. The INRMP is an internal DoD plan that sets forth goals and objectives for natural resources management on the OTA for a five-year period and is reviewed and revised on a yearly basis.

Every soldier participating in training on the OTA is required to attend an environmental awareness and safety briefing at least once each year. This combination video and scripted discussion addresses numerous environmental topics, and emphasizes the avoidance of shrub stands, staying out of restricted areas (primarily slickspot peppergrass areas, playas with Davis peppergrass, and cultural sites), fire prevention, and training tactics which minimize damage to vegetation, soils, and wildlife.

Vegetation Management

Since 1989 the IDARNG has annually monitored over 200 permanent vegetation plots in the OTA. These “core plots” were established to determine the long term impacts of military training on vegetation. The monitoring data indicate that sagebrush population trend on the OTA is stable both in plant density and average height. Although the IDARNG has restricted maneuver activities from heavy shrub areas since 1989, information gained from this

monitoring assists IDARNG in managing types, levels, and locations of training to minimize impacts on soils and shrub communities. Additional plots were established to provide information on the effectiveness of rehabilitation efforts.

Military training activities are restricted in some areas to protect sensitive plant species (i.e., slickspot peppergrass and Davis peppergrass) and cultural sites. Additional restrictions are imposed on a temporary basis to protect research study sites and plant rehabilitation areas. Since 1991, IDARNG has protected slickspot peppergrass populations from off-road maneuver training. Since this protection was implemented, no slickspot peppergrass has been impacted or destroyed by military activities. In addition, to enhance fire protection (see Fire Suppression and Prevention section below) additional firefighters are on duty during fire season, even during periods when no training activities are occurring.

The IDARNG environmental staff has broadcast seeded native species on approximately 800 acres a year since 1990. These rehabilitation projects range in size from 1 to 640 acres, with most occurring in historic burned areas (more than 20 years old). Due to the unpredictability of rainfall, some areas have been seeded several times in successive years to the same and/or additional species. It is estimated that approximately 10% of the treatments have been successful.

To prevent introduction of noxious and non-native invasive plant species, the IDARNG has a policy requiring all vehicles from outside the Treasure Valley area to be washed prior to entering the OTA. A tactical vehicle high pressure wash facility is maintained on adjacent State land at the Mobilization and Training Equipment Site (MATES) facility for that purpose. Annual surveys are conducted to identify weed areas and BLM is provided with the information. Many small weed infestations are controlled by hand weeding by IDARNG. Monitoring data indicate that while the number of non-native species varies greatly from



year to year, depending on precipitation patterns, the long-term trend seems to be stable on the OTA (Bern, 2006).

Fire Suppression and Prevention

During the fire season, live weapons firing has the potential to start fires, and when fire danger is high, IDARNG fire crews and equipment are stationed in the area to provide immediate response. Firefighters employed by IDARNG are required to meet National Wildfire Coordinating Group (NWCG) standards as stated in the Wildland and Prescribed Fire Qualification System Guide (Document 310-1). Fires that occur in the OTA must be immediately reported to Range Control. During the fire season, use of pyrotechnics must be coordinated with the Range Officer, and often a daily determination of their allowable use is made after all factors have been examined. Slickspot peppergrass habitat and existing shrub stands receive the highest protection priority. All fires are extinguished as quickly as possible. In addition, to enhance fire suppression capability, BLM issued IDARNG a right-of-way to construct and maintain about 70 miles of bladed fire breaks in the Impact Area. Further, BLM authorizes IDARNG on an as-needed basis to conduct limited controlled burns near live-fire targets.

Cultural Resource Management

Since 1989, under the requirement of a Memorandum of Agreement with BLM and the State Historic Preservation Office, IDARNG has been monitoring 28 significant archaeological sites in the OTA. This long-term monitoring data has indicated no negative impacts to any of the known sites due to military activities. The only site that shows a downward trend from other than natural processes is the Higby Cave site, which has suffered significant public vandalism.

In 2003 the IDARNG implemented an Integrated Cultural Resource Management Plan for managing and monitoring cultural re-

sources in the OTA. The Shoshone-Paiute Tribes of Duck Valley assisted in the development of this plan and provided official tribal endorsement. In 2005 and 2006, a Class III cultural survey was conducted on 20,000 acres of the OTA. The IDARNG surveys areas prior to construction or new surface disturbance and meets with the Shoshone-Paiute Tribe monthly to ensure military activities will not impact sites significant to the Tribe.

Public Use

BLM annually sponsors a meeting between IDARNG and ranchers who graze livestock in the OTA to coordinate spring grazing and military training activities. Grazing activities take priority over Army National Guard gunnery in the northern portion of the Impact Area during the month of April. Additional coordination occurs throughout the year.

Public recreational use and illegal trash dumping have increased in the OTA over the last several years, probably in direct correlation with the overall population increase in the Treasure Valley. In addition, the 1996 designation of the Plateau shooting management area immediately north of the OTA (Recreation Map 4) appears to have resulted in increased use of the northern portion of the OTA for recreational shooting. When members of the public are recreating or conducting other activities in portions of the OTA where training exercises are to be conducted, they may be contacted by IDARNG personnel to inform them about potential conflicts and safety issues.



Increased shooting along with other recreational uses poses potential safety concerns.



Road System

Approximately 118 miles of improved roads are routinely maintained by the IDARNG, with roughly 120 miles of unimproved trails receiving occasional maintenance. Two county roads provide main access to the OTA (IDARNG Map 1). Pleasant Valley Road provides direct southbound access to the northern boundary of the OTA. An unpaved tank trail is maintained along the paved portion of this road, and general road maintenance south of the Union Pacific Railroad tracks is done by the IDARNG. The northeastern part of the training area can be reached via the Orchard Road exit from Interstate 84. Standifer Road begins in the northern part of the OTA, branching southeast from Pleasant Valley Road and traversing the northeastern side of the training area, connecting to Range Road and Orchard Road near the Snake River Training Facility. The eastern portion of the training area can be reached via Simco Road. Range Road encircles the Impact Area and connects to Pleasant Valley, Standifer, and Cinder Cone Butte Roads.

Water Supply

There are two wells on the OTA. One is located at the Snake River Training Facility (IDARNG Map 1), which provides water for troop usage, maintenance, and fire fighting activities. The second well is located at the Ammunition Supply Point facility. Any water required by troops during training activities must be obtained from one of the two wells and hauled to their location.

Compatibility

In 2003, under a BLM contract, the Environmental Assessment Division of Argonne National Laboratory evaluated the effects of military and non-military activities occurring in the OTA (Argonne National Laboratory 2004). It stated in part, “Past training activities have contributed to the many environmental changes that the NCA and OTA have undergone since the 1950’s and have likely affected raptors and their habitats. However, current training activities appear to be fully compatible with those NCA goals.”

While the assessment stated that the military’s use of live munitions has resulted in the release of a variety of chemicals, many of which have been shown to elicit adverse responses in laboratory animals, and in some cases in vegetation and wildlife at other locations, current information is unavailable regarding the accumulated levels of munitions-related chemicals in the OTA environment or their effects, if any, on the biota using the OTA. The assessment did recommend further soil testing to determine if sufficient levels of munitions-related chemicals were present to affect raptors and other biota. Regardless of the potential effects on NCA biota, however, possible heavy metal accumulation and unexploded ordnance in the Impact Area is a public safety hazard. This public safety hazard is mitigated by the Ada County Ordinance that designates the Impact Area as off-limits to the public.

Cross-country (off road) vehicle travel in native shrub communities is incompatible with the purposes for which the NCA was established because of the adverse effects to soils and vegetation. IDARNG policy has restricted maneuver in heavy shrub stands since 1991.

2.2.13 Lands and Realty

The NCA manages approximately 483,700 acres. Uses of the land are diverse ranging from military training to grazing, wildlife habitat, and recreation. The current land use environment is determined by the NCA-enabling legislation.

Requests for use of lands in the NCA range from temporary permits for such things as beehives, to long-term ROW authorizations for pipelines, power lines, telephone lines, and road systems. Lands Table 2.1 shows the NCA’s average annual realty workload. Each application requires a site-specific analysis under the requirements of the NEPA. If an authorization is issued, subsequent field examinations are performed to ensure the grant holder complies with terms and conditions of the grant or permit. Approximately 8 to 14 compliance inspections occur annually.



Trends over the indicated period are reflective of what is happening on adjacent or nearby private lands. The bulk of this use has been occurring nearest to the populations centers

located along the northern portion of the NCA. It can be expected that uses will continue at current levels or higher for the foreseeable future.

Lands Table 2.1. Number of Realty Cases Completed, 1993 to 2005.

	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05
R/W's Granted	8	7	4	5	11	7	5	6	10	10	11	14	10
R/W Compliance	3	2	0	6	9	1	10	5	11	5	6	18	20
Leases	1	0	0	0	0	0	0	0	0	1	0	0	0
Permits	0	0	0	0	0	1	0	0	2	0	1	3	3
Permit Compliance	8	0	0	0	1	2	1	2	6	6	2	2	4
Access Easements	1	0	0	0	0	1	0	0	1	0	0	0	0
Disposal Exchanges	3	0	0	0	1	0	1	1	0	1	2	0	1
Acquired Land													
Purchase	1	0	0	0	0	1	0	0	2	3	1	3	2
(LWCF) Donations	0	0	0	0	0	1	0	0	0	0	0	0	0
Unauthorized Use													
New Cases est.	2	0	4	0	0	2	2	2	1	1	1	1	2
Cases Closed	0	0	0	0	0	0	0	1	1	1	0	0	2

A number of withdrawals, primarily along the Snake River, have segregated several hundred acres of public land. They include projects for proposed water impoundment areas, power transmission lines, and irrigation projects. Most of the withdrawals were initiated between 1910 and the mid-1950s when addi-

tional irrigation and hydroelectric dam projects were being proposed along the Snake River. Only the Swan Falls and C.J. Strike Dams and Reservoirs are within the boundary of the NCA. The following withdrawal orders are currently noted within the NCA.

Lands Table 2.2. Federal Land Withdrawals in the NCA.

Order Type	Order Date	Withdrawal Purpose	Action Number
Executive	07-02-1910	Power Site	Reservation 77
Executive	07-02-1910	Power Site	Reservation 117
Secretarial	06-22-1915	Boise Reclamation Project	
Secretarial	05-22-1922	Power Site	Class. 365
Federal Power Comm.	05-18-1924	Power Project	503
Secretarial	08-10-1944	Power Site	Class. 365
Federal Power Comm.	05-16-1952	Power Project 50' wide transmission line	2085
US Geological Survey	08-15-1955	Power Site	Class. 435
Federal Power Comm.	12-26-1956	Power Project	2055 Boundary
Federal Power Comm.	06-18-1969	Power Project	503 Proposed
Public Land	09-23-1959	Mountain Home Reclamation Project	1992
Public Land	09-23-1959	Snake River Reclamation Project	1992
Public Land	01-15-1962	Snake River Reclamation Project	2588
Public Land	02-09-1967	C.J. Strike Wildlife Management Area	4153



The Lands and Realty program was significantly affected by the 1993 NCA enabling legislation, which withdrew public lands in the NCA from all forms of entry, application, and disposal under the public land laws in general, and the following specific statutes:

- Desert Land Act (43 U.S.C. 321 *et. seq.*) as amended
- Carey Act (28 Stat. 422) as amended
- State of Idaho Admissions Act (26 Stat. 215)
- Section 2275 of the Revised Statutes (43 U.S.C. 851)
- Section 2276 of the Revised Statutes (43 U.S.C. 852).

In addition to the application-generated work for ROW, leases, permits, etc., there is an ongoing need to investigate and resolve unauthorized use and to evaluate potential land tenure adjustment opportunities. Section 5(a) of the enabling legislation authorized acquisition of lands through donation, purchase, exchange, or transfer from another federal agency, except that lands owned by the State of Idaho may only be acquired through donation or exchange. Section 5(c) of the Act specifies that funds for direct purchase of lands or interests therein within the NCA may be appropriated either under the authority of FLPMA or the Land and Water Conservation Fund Act of 1964.

The 138,500-acre OTA represents almost 30% of the acreage in the NCA, with the 85,500-acre Maneuver Area occupying about 60% of the OTA. Because IDARNG is required to meet escalating training requirements and readiness standards, they are seeking opportunities to enhance their current maneuver training capabilities.

BLM has developed a nationwide policy to withdraw public lands to the Department of Defense (DoD) that contain military-related hazardous chemical contamination or unexploded ordnance. As such, under all alternatives, BLM will be submitting a proposal to Congress to withdraw the approximate 53,000 acre OTA Impact Area to the DoD to mitigate

the liability related to past and ongoing munitions-related chemical soil contamination and unexploded ordnance.

Although the Mountain Home Air Force Base is located adjacent to public lands in the NCA, Air Force activities, including Military Operations Areas, do not affect the NCA.

The current location of the NCA boundary makes it difficult for the public to know what is or isn't included, and also makes managing the area difficult. To remedy this situation, BLM is proposing to realign the boundary on easily identified landmarks, such as roads, powerlines, railroads, etc. This change would require Congressional approval.

The 1983 Kuna Management Framework Plan (MFP) identifies a utility corridor running parallel to and north of Interstate-84 from Boise to Hammett, which affects a very small section of the NCA lying east of Mountain Home. This corridor contains ROW for petroleum pipelines, electrical powerlines, and fiber optic cables (Lands Map 2).

Lands within the NCA are generally open for the full range of compatible uses, with the following exceptions:

1. The 53,000-acre OTA Impact Area is closed to public access because of safety concerns associated with ongoing tank, artillery, and small arms firing and unexploded ordnance (IDARNG Map 3).
2. Approximately 1,300 acres extending along the north side of the Snake River Canyon from the USGS gauging station downstream to the Ada and Canyon County border is set aside for non-motorized uses (Transportation Map 2).
3. Approximately 43,000 acres on the south of the Snake River from Henderson Flats downstream to Guffey Butte have been designated as an avoidance or exclusion area for major realty actions, due to recreational controls (Owyhee Front), sensitive plant issues and paleontological concerns (Lands Map 3).



Lands Table 2.3. NCA Land Disposals and Acquisitions from 1988 to 2005.

	1990	1991	1993	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Access Easements	4	0	5	0	0	3	0	0	5	0	0	0	0
Purchases	0	344	0	0	0	0	0	0	0	149	0	320	979
Exchange Acquisitions	120	0	353		1280	672		34	0	8	76	0	170
Exchange Disposals	103	0	936	80	840	262	0	100	0	160	36	0	309
Donations	0	0	0	0	0	0	40	0	0	0	0	0	0
Conservation Easements	0	344	0	0	0	0	0	0	0	2120	0	0	0

No land tenure adjustments occurred in years not shown.

Since 1983, approximately 2,713 acres have been acquired and about 2,826 acres have been disposed of in land exchanges. In addition, a conservation easement was purchased on about 2,120 acres of private land to restrict future incompatible commercial, residential, or industrial developments. In 1998, 40 acres of private land was donated by an individual for inclusion within the NCA.

2.2.14 Livestock Grazing

Prior to 1934, ranchers were allowed unrestricted use of public land. In 1934, the Taylor Grazing Act was passed to address concerns about resource degradation caused by common and unrestricted grazing on the open range of the U.S. The Act established a system for: 1) allocating grazing privileges to livestock operators based on grazing capacities and priorities of use, and 2) delineating allotment boundaries and establishing grazing fees. The Act placed 142 million acres of land in western States under the jurisdiction of the Grazing Service, which along with the General Land Office, evolved into the BLM in 1946. The 1976 Federal Land Policy and Management Act (FLPMA) and the 1978 Public Rangelands Improvement Act (PRIA) provided additional authority for managing livestock grazing on public land.

The NCA enabling legislation provides that “...(1) *So long as the Secretary determines that domestic livestock grazing is compatible with the purposes for which the conservation area is established, the Secretary shall permit such use of the public lands within the conser-*

vation area, to the extent such use of the lands is compatible with such purposes.” Compatibility determinations will be made in this RMP.

Permittees have leases for grazing on State lands, which are managed by BLM as a part of the overall allotment. The approximate permitted use for the NCA is 44,000 animal unit months (AUMs) and the approximate average actual use for the past ten years is 28,500 AUMs. With the extended drought and invasion of exotic annuals, many permittees have taken voluntary non-use or reductions in use ranging from 25-50% of their permitted use.

The Sunnyside Spring/Fall Allotment (S/F Allotment) and Sunnyside Winter Allotment (Winter Allotment) are the two largest allotments, comprising about half of the NCA (Grazing Map 1). General seasons of use for NCA allotments are as follows:

- Spring: April 1 to June 30
- Fall: October 15 to December 14
- Winter: December 15 to March 31

The OTA extends across both the S/F and Winter Allotments. Approximately 14,500 AUMs of licensed use within the S/F and Winter allotments are allocated within the OTA, of which approximately 5,800 AUMs are within the Impact Area.

Appendix 10 shows the permitted AUMs, season of use, and kind of livestock for all NCA allotments.



Due to military training schedules and safety considerations, livestock operators' access to the Impact Area is coordinated with the IDARNG. IDARNG tank, artillery, and small arms firing have reduced accessibility of the area to operators and livestock during the grazing period. For safety reasons, permittees cannot access the approximately 3,400 acre Artillery Impact Area (IDARNG Map 1, and access is limited in the remainder of the Impact Area. Thus, a portion of the forage allocated to livestock is ungrazed each year. In 1994, the S/F Allotment was formally reduced by 2,394 AUMs. The IDARNG purchased these AUMs, and BLM subsequently retired the AUMs through a grazing decision.

Loss of perennial plant communities, fluctuating annual forage production, lack of permanent water, and the continuing trend of exotic annual species expanding into the NCA is re-



The NCA currently contains 34 allotments on approximately 483,700-acres of public land. Within these allotments are State lands. Over the past decade, permittees have taken voluntary reductions ranging from 25 – 50% of their stocking rates (See Appendix 10 - Grazing Table 1)

sulting in reduced stocking levels and highly fluctuating annual forage production. Since 1996, several smaller allotments have been split off from the S/F and Winter Allotments through rangeline agreements, which reduced the competition for forage that existed when several permittees grazed within a common use area.

Growth of annual exotics (e.g., cheatgrass) is strongly influenced by precipitation. The timing of precipitation and growing degree-days are important factors and are critical to growth levels on annual dominated rangelands (Vegetation Table 2.1).

The downward trend in stocking rates is in part the result of:

- the change from perennial plant communities to an annual grass community;
- a further change from annual grass communities to other invasive exotics, causing even less dependable forage from year to year; and
- an increase in the number and size of fires that have further eliminated the forage available for livestock grazing.

The permitted use levels were determined in the mid 1960s, and the forage needed to support these levels is no longer available and is not likely to return without extensive intervention. The allotments and/or pastures identified in Grazing Table 2.1 below have crossed ecological thresholds and will not improve through livestock management alone, thus they require restoration efforts to improve ecological functions.

The allotments or pastures identified on Grazing Map 7 support sufficient perennial vegetation to respond to grazing management. These pastures and allotments were identified and determined by the S&G assessments.



Grazing Table 2.1. Allotments or Pastures to be Managed as Exotic Annual Rangelands.

Allotment No.	Allotment Name	Pasture(s)
386	White Butte	<i>Entire allotment</i>
825	Sunnyside Spring/Fall	Common Area outside the Slickspot peppergrass Kuna Management Area.
826	Sunnyside Winter	<i>Entire allotment</i>
827	Rattlesnake Seeding	New Field, Rock Dam, Small Arms #2, Airbase, Hog Farm, West Lamberton, Pastures 1, 2 and 3
834	Rattlesnake Creek	<i>Entire allotment</i>
837	Rabbit Springs	<i>Entire allotment</i>
868	Melba Seeding	<i>Entire allotment</i>
873	Reverse	Pastures 1, 2, 3, 4, 5 and 6
875	Chattin Hill	<i>Entire allotment</i>
886	Squaw Creek	Farm to Market, Crater II Seeding, East Rockhouse, RockHouse West, Small Arms II
887	Simco	<i>Entire allotment</i>
896	Airbase	<i>Entire allotment</i>
899	Medbury Hill	Pastures south of Highway 30 (2)

Cover is another important component influencing production levels. Ground cover (litter) is important to protect soil against evaporation and improve infiltration of precipitation into the soil. Litter also provides a thermal cover, which allows the forage plants to optimize early season growth. Plant overstory (shrubs, tall perennial grass) and aspect of range site are also key components that affect forage production because wind is a significant factor influencing soil moisture evaporation. In summary; vegetative production may not always fluctuate in a direct correlation to precipitation. Production potential in the NCA also depends upon location and site characteristics.

A 1997 Environmental Assessment (USDI 1997a) identified livestock grazing as a tool which could be used to reduce hazardous fuels. About 1,500 acres of fuel breaks were identified that could potentially benefit from livestock grazing of excess fuel. To date, only 200 acres have been grazed for this purpose. The program has been limited by the lack of operators who are either interested or able to adequately manage their livestock in the manner required to achieve the desired results (Grazing Map 3).

Some grazing permittees change the locations of water troughs in an attempt to rotate livestock use areas during different years to provide rest for the forage. However, frequent forage shortages preclude resting most areas in a given year, which limits our ability to improve perennial vegetation. Without specific habitat restoration or rehabilitation projects, resting cheatgrass-dominated communities from grazing does not improve the sites for perennial species.

The December 2003 slickspot peppergrass CCA incorporates changes in grazing management to reduce impacts to this SSP (Governor’s Office of Species Conservation *et al.* 2003). The CCA describes five management areas (Special Status Plant Map 1) that fall wholly or partially within the NCA. Livestock grazing in these areas is more strictly managed through a number of methods, including herding, restricting placement of supplements and water; eliminating spring grazing, limiting livestock trailing; fencing; and constructing livestock exclosures. Conservation measures contained in the CCA are included in all affected grazing permits (Grazing Map 2).



Virtually all the livestock grazing in the NCA is upland grazing. Following completion of a Biological Assessment to determine the potential effects of livestock grazing on Idaho Springsnail and the bald eagle, BLM has restricted livestock access to the Snake River and its tributaries. There are no sheep grazing permits in riparian areas. For additional information on the Idaho Springsnail, see Special Status Animals Section 2.2.6.1 above.

The 340-acre Priest Ranch, located on the south side of the Snake River, was purchased in the early 1980s for wildlife habitat. As such, it was never added to any grazing allotment, and remains closed to livestock grazing (Grazing Map 4). Pasture 8B of the Battle Creek Allotment is unallocated. The TWMA and Gold Isle are also closed to grazing.

Standard and Guides assessments and determinations have been completed on many of the grazing allotments in the NCA. The remaining allotments will have S&G assessments and determinations completed by 2009 (See Appendix 10 – Grazing Table 1). The purpose for S&G assessments is to determine whether allotments or portions of allotments are meeting the eight standards for proper rangeland health. If the assessments determine that one or more standards are not being met, grazing decisions are issued which include measures designed to mitigate the impact and to bring the allotments into conformance with the standards. These changes could include such measures as timing, seasons, duration, etc.

2.2.15 Mineral Resources

The act establishing the NCA withdrew the entire area from all forms of mineral entry.

- Only “grandfathered” mining claims and existing mineral material sites were allowed to continue,
- No new mineral material sites can be established,

- No new mining claims can be located, and
- No mineral leases can be authorized within the NCA.

Geologic Overview

The NCA is located in the western Snake River Plain physiographic province. The western Snake River Plain is a northwest trending, fault bounded structural depression about 35 miles wide that extends from the Twin Falls area on the southeast to Hells Canyon on the northwest. The surface consists primarily of Quaternary basalt flows underlain by Tertiary fluvial and lacustrine sediments over 1,000 ft. thick. In the NCA, the Snake River has cut a deep canyon in the lake deposits. The basalts have repeatedly filled the canyon over the past 100,000 years and subsequently been eroded by the Snake River forming a new canyon. The Snake River Canyon is a predominate surface feature in the NCA and provides an important nesting habitat for the raptor populations that inhabit the area.

2.2.15.1 Leasable Minerals

Leasable minerals include oil and gas, geothermal steam, coal, and certain non-energy minerals, such as phosphate, sodium, and potassium. There are no mineral leases in the NCA and the area is closed to leasable mineral entry and disposal.

2.2.15.2 Mineral Materials

Salable minerals include sand and gravel, building stone, clay, cinders, decorative rock, limestone, and petrified wood. The NCA contains approximately 45 mineral material sites that are either currently authorized or have been authorized in the recent past and have remaining reserves of mineral materials (Minerals Map 1, Appendix 11). Of the 16 currently active sites, five are community pits that contain sand and gravel, clay and cinders which are available to the public through the sale of permits. The other 11 sites are free use permits used by the State and County highway districts and the IDARNG for road construction and maintenance.



2.2.15.3 Locatable Minerals

Locatable minerals include metallic minerals such as gold, silver, lead, zinc and mercury and non-metallic minerals such as bentonite, diatomite and zeolite. Also included in this category are gemstones and semiprecious minerals such as jasper, opal and agate. Under the NCA enabling legislation the area is closed to locatable mineral entry and disposal.



The NCA provides a variety of dispersed and developed recreational opportunities and is considered a globally important birding area.

BLM may dispose of mineral materials from unpatented mining claims if disposal does not endanger or materially interfere with prospecting, mining, or processing operations, or uses reasonably incident to the activity.

2.2.16 Recreation

The NCA-enabling legislation states that “...the secretary may provide for visitor use of the public lands in the conservation area to such extent and in such manner as the Secretary considers consistent with the protection of raptors and raptor habitat, public safety, and the purposes for which the conservation area is established.”

Distinct differences exist in the location, amount and type of recreation use in the NCA. These differences result from a combination of

road access, the proximity to population centers, and the two major topographic features (the Snake River Plain and the Snake River Canyon). Presently, the western third of the NCA (Management Area 1) and the C.J. Strike Reservoir area (Management Area 2) receive most of the recreational use. Because the NCA can be accessed by over 50 roads or trails, it is extremely difficult to get reliable estimates of visitor use throughout the area. However, our best estimates to-date set average annual recreational visitor use for the NCA at around 175,000 visits, most of which occurs in the western portion of the NCA and along the Snake River Canyon and C.J. Strike Reservoir. The NCA has participated in two visitor use surveys (2003 and 2006) to comply with the Government Performance and Results Act (GPRA). These surveys were developed to measure the degree to which the BLM is providing a quality recreation experience and providing for fair value in recreation.

Recreational uses on the Snake River Plain are predominately dispersed activities and include off-highway vehicle use, recreational shooting, wildlife viewing, geocaching, and horseback riding. The Snake River Canyon provides opportunities for activities such as fishing, camping, float and power boating, hiking, mountain biking, horseback riding, waterfowl hunting, and parasailing.

Recreation use occurs year-round with visitor use being highest in the spring and early summer months and lowest during winter months. Over the past 10 years, as the population of the Treasure Valley has increased, use during the summer and fall has also increased.

Special Recreation Management Areas

The 1996 NCA Management Plan designated the entire NCA as a SRMA. However, when the NCA was first designated, it covered portions of four field offices that already had existing SRMAs. This resulted in overlapping SRMA designations (Recreation Map 1).



Snake River Birds of Prey National Conservation Area SRMA

This SRMA encompasses the entire NCA (483,700 acres), and was designated in 1996 for the following primary values: (1) wildlife, (2) education, (3) recreation, and (4) scientific study. Overall management objectives are to preserve the high-quality scenic, recreational, wildlife, and cultural values and to enhance opportunities for high-quality outdoor recreation experiences, environmental education, and scientific studies while maintaining the integrity of the area's natural environment and cultural resources. The SRMA is managed for semi-primitive non-motorized, semi-primitive motorized, and roaded natural recreation opportunities and experiences.

Improved recreation sites within the SRMA include Cove Recreation Site, Dedication Point, and Rabbit Creek Trailhead (Recreation Map 3). In addition to these improved sites, the following areas receive a significant amount of recreational use:

- Kuna Butte
- Kuna Cave
- Initial Point
- Crater Rings
- Halverson Bar
- Halverson Lake
- Trueblood Wildlife Management Area.

Snake River Birds of Prey SRMA

The SRMA includes 50,100 acres located west of Castle Creek and north of State Highway 78. The SRMA was designated in December 1999 in the Owyhee RMP (USDI 1999b) for wildlife and recreation values; however, due to recent administrative boundary changes, the SRMA is now located wholly within the NCA and Four Rivers Field Office. Overall management objectives are to preserve the outstandingly remarkable and high-quality wildlife and scenic values and to enhance opportunities for high-quality environmental education and scientific studies while maintaining the integrity of the area's natural environment and cultural resources. The SRMA is managed

for semi-primitive motorized and roaded natural recreation opportunities and experiences.

Rabbit Creek Trailhead (Recreation Map 3) is the only improved recreation site in the SRMA.

Oregon Trail SRMA

This 3,300-acre SRMA is located north and west of Castle Creek, and was designated in 1999 as part of the Owyhee RMP primarily for its historic and cultural values (USDI 1999b). As with the above Snake River Birds of Prey SRMA, the Oregon Trail SRMA was originally located in the Owyhee Field Office, but due to recent administrative boundary changes, the SRMA is now located wholly within the NCA and Four Rivers Field Office. Overall management objectives are to preserve the outstandingly remarkable and high-quality historic, cultural and scenic values and to enhance opportunities for environmental education and scientific studies while maintaining the integrity of the area's natural environment and cultural resources. The SRMA is managed for semi-primitive non-motorized recreation opportunities and experiences. There are no developed recreation sites in the Oregon Trail SRMA.

Owyhee Front SRMA

A small portion (6,300 acres) of the Owyhee Front SRMA is located within the NCA boundary, west of Highway 78 near Murphy and near Sinker Creek. The SRMA was designated in 1999 in the Owyhee RMP primarily for recreation values (USDI 1999). Overall management objectives are to preserve the high-quality recreational values and to enhance opportunities for high-quality outdoor recreation experiences. The SRMA is managed for semi-primitive motorized and roaded natural recreation opportunities and experiences. The only developed recreation site in the Owyhee Front SRMA is the Rabbit Creek Trailhead.

C.J. Strike Reservoir SRMA

This 5,500-acre SRMA is located around the perimeter of C.J. Strike Reservoir. The SRMA



was designated in the 1983 Bruneau MFP for its recreation and wildlife values. Overall management objectives are to preserve the high-quality scenic, recreational, and wildlife values and to enhance opportunities for high-quality outdoor recreation experiences while maintaining the integrity of the area's natural systems and cultural resources. The SRMA is managed for semi-primitive motorized and roaded natural recreation opportunities and experiences.

The only BLM-developed recreation site in the C.J. Strike Reservoir SRMA is Cove Recreation Site, a popular camping spot. Commercial recreational developments constructed on public land, but privately operated under BLM permit include Black Sands Resort and the Air Force Base Recreation Site. Other recreation facilities located along the reservoir near Cove Recreation Site include North Park Recreation Area, managed by Idaho Power Company, and Cottonwood Campground, managed by the IDF&G. The high use season for the reservoir is May through October.

Extensive Recreation Management Areas

Because the entire NCA is designated as an SRMA, the Extensive Recreation Management Areas (ERMA) designation would not apply.

Recreation Sites

Developed Recreation Sites

Dedication Point and Cove Recreation Sites, located along the Snake River Canyon, and Rabbit Creek Trailhead, located along Highway 78, are the only three developed recreation sites (Recreation Map 3).

- Dedication Point is a 200-acre interpretive site with a one-quarter mile, interpretive loop trail leading to an overlook of the Snake River Canyon, two disability-accessible restrooms, and a covered shelter for presentations. Use at Dedication Point is highest in the spring during peak raptor watching and lowest in late summer and winter.
- Cove Recreation Site is a developed campground located on the south shore of

C.J. Strike Reservoir. The campground has 23 camp units with shade structures available for day or overnight use, fishing docks, pit toilets, and potable water. A shallow water boat launch is located on the west end of the site.

- Rabbit Creek Trailhead is an off-loading and parking area located along the west side of Highway 78, near Murphy, which provides an access point for ATV and motorcycle riders in the Owyhee Front area. Although the trailhead is located within the NCA, it provides access for off-road vehicles that primarily use lands outside of the NCA.

Undeveloped Recreation Areas

There are numerous undeveloped recreation sites that sustain a concentrated amount of recreation use, but have few or no facilities associated with the site. Examples of undeveloped recreation sites include Halverson Lake, Kuna Butte, Initial Point, the Snake River Canyon below Swan Falls Dam, and Wees Bar (Recreation Map 3).

Special Recreation Permits (SRPs)

Commercial, competitive, or large group events require a special recreation use permit. Three to five special recreation permits (SRP) are issued annually. The NCA limits the number of commercial SRPs to ten (five land permits and five river permits). Although BLM does not manage the Snake River, if an outfitter launches from or returns to public land, or if they use public lands during their trip (e.g., lunch stops or to hike), they must obtain a BLM permit. Outfitters must possess a commercial outfitter's permit from the Idaho Outfitters and Guides Licensing Board (IOGLB).



Presently only one commercial river outfitter is permitted by the BLM.



The IOGLB limits the number of licensed outfitters on the Snake River through the NCA to five float boat outfitters and five powerboat outfitters. The IOGLB currently permits five powerboat outfitters on the Snake River through the NCA and has received requests for more commercial permits for this section of the Snake River.

Non-commercial activities requiring SRPs have not been limited in number due to low demand.

Recreational Shooting

Public safety concerns about stray and ricocheted bullets emerged during the 1990s. This safety issue was particularly significant in the western portion of the NCA, closest to the growing communities of Boise, Kuna and Melba. To address the safety concerns, the BLM implemented the following shooting restrictions following publication of the 1996 NCA Management Plan for the Snake River Canyon and the Snake River Plateau.



The NCA has long been popular with recreational shooters as a place to target shoot and sight-in rifles. Much of this shooting is directed at ground squirrels and other non-game animals during the spring.

Snake River Canyon

Public lands are closed year-round to the discharge of rifles and pistols year-round within the Snake River Canyon from Gold Isle (near Grand View) downstream to Guffey Bridge (Recreation Map 4). The width of the closure is 1/2 mile from either side of the Snake River or 100 yards back from the canyon rim, whichever is greater. The same area is closed to the discharge of all firearms from February 15 to August 31. The one

exception to this restriction is for the rifle deer hunting season in Hunting Unit 40 on the south side of the Snake River. This closure provides for continued hunting of upland game and waterfowl in the canyon area with shotguns between September 1 and February 15 in accordance with Idaho Fish & Game regulations. The use of firearms within the above area for law enforcement purposes is exempt from the shooting closure.

Snake River Plateau

Public lands are closed year-round to the discharge of rifles and pistols in the portion of the NCA located north of the PacifiCorp powerline (Recreation Map 4, Plateau shooting restriction area). The area located south of the PacifiCorp powerline and west of Swan Falls Road is also closed. The use of firearms within the above area for animal damage control and law enforcement purposes is exempt from the shooting restriction.

In addition to the Canyon and Plateau shooting restrictions, public access and shooting is not allowed within the Impact Area of the IDARNG OTA. The closure does not affect military training activities (Recreation Map 4).

Areas Open to Shooting

Currently, recreational shooting may take place anywhere within the OTA except for the Impact Area. Anecdotal information, including observations by BLM and IDARNG staff, suggests that recreation use, including shooting, has increased in the northern portion of the OTA. This increased use corresponds with the population increase in the Treasure Valley. The increased population and area use is also the likely cause of recreational uses expanding from the Plateau area into the adjacent OTA. This increased recreation use in an area that also supports military training raises public safety concerns for land managers. To help mitigate this concern, individuals or groups may be contacted by IDARNG, BLM or local law enforcement personnel in the area where training exercises occur to inform them of potential activities and what they may do to reduce potential conflicts and safety hazards.



Evolving public land use conflicts, including shooting, may be addressed through Standard Operating Procedures, as required in the BLM/IDARNG MOU.

Recreation Opportunity Spectrum (ROS)

Public lands are managed to provide a broad spectrum of recreational opportunities. The ROS provides the BLM with a framework for determining existing outdoor recreation opportunities and management potential based on a combination of activity, setting, and experience (See Appendix 15 for ROS classifications).

Use of the ROS provides for:

- establishment of outdoor recreation management goals and objectives for specific areas,
- analysis of the impact of proposed resource management actions on available recreation opportunities,
- monitoring in terms of established standards for recreation experience and opportunity settings, and
- specific management objectives and standards for project plans.

The ROS system divides the continuum into six management classes, with “primitive” describing the most isolated, natural, and challenging setting, and “urban” describing the most user-intensive, developed, and modified setting. The six management classes are:

- primitive,
- semi-primitive non-motorized,
- semi-primitive motorized,
- roaded natural,
- rural,
- modern urban.

The ROS classifications are based upon what the user may see, hear, and experience while recreating. The majority of the NCA is classified as roaded natural with minor amounts of land classified as semi-primitive motorized and semi-primitive non-motorized (Recreation Table 2.1).

Roaded natural settings are defined as landscapes partially modified by roads, utility lines, etc., but not in a way that overpowers the natural landscape features. The landscape may contain improved yet modest, rustic facilities such as campsites, restrooms, trails, and interpretive signs.

Semi-primitive motorized settings are defined as naturally-appearing landscapes except for obvious primitive roads. Facilities may include maintained and marked trails, simple trailhead developments, improved signs, and very basic toilets.

Semi-primitive non-motorized settings are defined as naturally-appearing landscapes having modifications that are not readily noticeable. Facilities may include some primitive trails with improvements made of native materials, such as log bridges and carved wooden signs.

The ROS system describes physical settings, experiences, and activities for each class and identifies where these combinations occur. Area classification allows for flexibility where the overlapping of class characteristics commonly occurs. The use of this system helps recognize and meet the growing demand for a variety of recreation activities and settings within the NCA.

Recreation Table 2.1. Recreation Opportunity Spectrum (ROS) Acres.

Recreation Opportunity Spectrum Acres Summary					
Primitive	Semi-primitive non-motorized	Semi-primitive motorized	Roaded Natural	Rural	Urban
0 acres	1,600 acres	14,200 acres	467,900 acres	0 acres	0 acres



Caves

A total of 23 named caves are located within the NCA boundary. None of the caves have been studied to determine if they possess significant cave resources under the Federal Cave Resources Protection Act of 1988. Cave significance/non-significance will be determined as information and data is compiled. One cave (Higby Cave) has been officially closed for safety reasons.

Environmental Education and Interpretation

The NCA legislation recognized that the NCA constitutes a valuable national educational resource. One effective way to protect raptors is to educate the public about the important role of raptors and how various activities can affect their habitat. This is achieved using a number of educational and interpretive methods, including:

- **Oral Presentations** – BLM staff share information about the natural and cultural resources of southwest Idaho with schools and universities, churches, nursing homes, summer camps, career fairs, community events, and other groups and organizations. Staff provides presentations for those in the Boise area and within a two-hour drive. Presentations cover topics about birds of prey, vegetation, geology, archaeology, recreation, grazing, wildland fire, wildlife, and fisheries.
- **Education Raptors** – The NCA has several raptors that are used during presentations under F&WS and IDF&G permits. Although the birds were injured and are non-releasable, they captivate groups with their beauty and strength and serve as ambassadors for all wild birds.
- **The Raptor Box** – This tool is a self-contained teacher traveling trunk developed to educate the public about the NCA and its wildlife. The NCA-staff has assembled five trunks that are shipped to educators throughout Idaho, usually for three-week periods. The trunk includes an instruction notebook and hands-on

resources, including books, guides, videos, CD-ROMs, and raptor silhouettes.

- **Spring Hikes** – On weekends from April through June each year, the NCA staff leads free hikes in various locations in the NCA to provide the public an opportunity to learn about and experience the natural and cultural values of the NCA. The hikes explore the NCA's plants, animals, geology, cultural history, and recreation resources.
- **Environmental Education Days** – Each spring the BLM hosts Environmental Education Days (EE Days) at the Dedication Point Interpretive Site for grades 4 through 6. This popular event, which extends over three weeks, is designed as a half-day, outdoor laboratory for each class, to give teachers and students an opportunity to learn about and experience firsthand the desert ecosystem.



The NCA is a valuable national educational resource.

- **Interpretive Waysides** – Signs are placed in strategic locations along major access roads to inform and educate the public about the NCA, its unique resources, and ways to help protect and enjoy these resources.



- NCA Website – The NCA website was developed in 1997 to provide a more efficient method to answer questions from across the U.S. and the world. The website serves as a technological extension of the NCA staff in answering visitor inquiries.

Wild and Scenic Rivers (W&SR)

Section 5(d)(1) of the 1968 W&SR Act (P.L. 90-542) directs federal agencies to consider the potential of W&SRs in the land use planning process. This process requires determinations to be made regarding a river's eligibility, classification and suitability. Eligibility and classification represent an inventory of existing conditions. Eligibility is an evaluation of whether a candidate river is free-flowing and possesses one or more outstandingly remarkable values. If found eligible, a candidate river is analyzed as to its current level of development (water resources projects, shoreline development, and accessibility) and a recommendation is made that it be placed into one or more of three classes – wild, scenic or recreational.

The final procedural step, suitability, provides the basis for determining whether or not to recommend a river as part of the National System.

Eighty-one miles of the Snake River flow through the NCA. Within this area, the Swan Falls Dam and C.J. Strike Dam break the river into free-flowing segments totaling 49 miles (Recreation Map 13). Descriptions of these segments are as follows:



Eighty-one miles of the Snake River flow through the NCA.

- Segment 1 – East boundary of the NCA downstream to the backwaters of C.J. Strike Dam – approximately 9 miles,
- Segment 2 – C.J. Strike Dam to the backwaters of Swan Falls Reservoir – approximately 27 miles,
- Segment 3 – Below Swan Falls Dam to the west boundary of the NCA – approximately 13 miles (See Appendix 14).

C.J. Strike Dam impounds about 24 miles of the Snake River and Swan Falls Dam impounds about 9 miles of river. Prior to initiation of this planning effort, the free-flowing segments of the Snake River had not been evaluated for potential eligibility or suitability for inclusion in the National W&SR System.

Those segments found eligible and suitable for designation may be recommended to Congress for designation as a part of the Wild and Scenic Rivers system. Segments determined to be suitable, whether subsequently recommended for designation or not, will be managed under the withdrawal language contained in the NCA-enabling legislation to protect the outstandingly remarkable values, i.e., scenic, recreational, geologic, fish and wildlife, historic, and cultural, etc. that were identified in the eligibility determination (Appendix 14).

Compatibility of Recreational Activities with the Purposes of the NCA

In 2003, under a BLM contract, the Environmental Assessment Division of Argonne National Laboratory evaluated the effects of activities occurring in the OTA (Argonne National Laboratory 2004). This report stated in part, that cross-country (off-road) vehicle travel in native shrub communities is incompatible with the purposes for which the NCA was established. The report further states that:

“Recreational shooting may result in lead poisoning of raptors feeding on prey injured by shooting and containing lead shot. Because recreational shooting of ground squirrels coincides with the nesting period for the prairie falcon, lead-shot contaminated prey fed to young may also affect nesting



survival or fledgling success. However, currently the level of lead shot in injured or killed prey, the degree to which raptors may be feeding on injured prey, and the level of lead exposure that raptors (adult and young) may be receiving are unknown.”

The report also stated that:

“fires started by recreational visitors (by smoking, careless use of campfires, or contact of dry vegetation with hot engine parts) may have ecologically significant adverse effects on native vegetation on the site. Recreational visitors have relatively open access to much of the quality sagebrush habitat on the OTA. Sagebrush is especially vulnerable to the effects of fires and may be irreversibly impacted as a result of fire.”

2.2.17 Renewable Energy

See Lands and Realty Section 2.2.13 above.

2.2.18 Transportation

Also see Recreation Section 2.2.16 above.

Off Highway Vehicle Use

When the NCA was designated, portions of the area were covered under five different land use plans, with varying management direction for vehicle access. The 1996 NCA Management Plan declared the NCA a Designated Vehicle Management Area, designating about 1,300 acres as “closed” to motorized vehicle use. This non-motorized area is located along the north side of the Snake River Canyon, and extends from the Ada/Canyon County line upstream to near the USGS gaging station.

The area encompasses all of Halverson Bar and contains more than 15 miles of trails for non-motorized uses, such as horseback riding, hiking, and mountain biking (Transportation Map 2). Since the designation of this non-motorized area, equestrian use in the Celebration Park and Halverson Bar area has steadily increased. There are currently no designated

parking or trailhead facilities to accommodate equestrian use. The TWMA and Gold Isle are also closed to motor vehicles.



Since 1996, all vehicles have been required to remain on designated roads and trails with no cross-country use allowed.

Although the NCA Management Plan does not provide for off-road, cross-country vehicle travel, an unauthorized OHV play area has existed for decades along the Canyon Creek drainage, located north of the Grandview Highway and east of Simco Road. The area is popular with local residents because of its unique topography, as well as its proximity to Mountain Home Air Force Base and the City of Mountain Home. The soils and vegetation have been highly disturbed and the area is also the target of a significant amount of illegal trash dumping and indiscriminant target shooting. Both the use and the size of the area have increased dramatically over the past decade, resulting in further degradation of the area. The area is affected by periodic, but infrequent flooding, which prevents natural or artificial reestablishment of vegetation. Recently, the ongoing OHV activity has unearthed military-related objects, including clothing, dishes, ammunition, papers, etc, that were deposited when the area was used as a landfill. BLM completed a site evaluation and determined that there was a low potential for hazardous materials to exist on-site. Further analysis will determine whether the materials possess historic significance. Appropriate follow-up actions will be taken based on this site evaluation. Actions could include full closure of the area, restriction to designated routes through the area, or management as an open OHV area in cooperation with local entities. Unauthorized OHV use will not be allowed to continue.



In 2003, under a BLM contract, the Environmental Assessment Division of Argonne National Laboratory evaluated the effects of activities occurring in the OTA (Argonne National Laboratory 2004). This report stated in part, that cross-country (off-road) vehicle travel in native shrub communities is incompatible with the purposes for which the NCA was established.

Because of the potential safety hazards associated with live firing activity and unexploded ordnance, the 53,000 acre Impact Area of the IDARNG OTA is closed year-round to public access.

Road Density

In 2003, BLM inventoried all roads within the NCA to identify and classify the routes and their condition. This data was analyzed to determine road densities in the following method. An ArcGIS 9 software program was used to analyze the NCA's inventoried routes in a grid system of cells measuring 100 ft x 100 ft. From the center of each cell, the software program calculated the number of miles of road within a one square mile surrounding each cell. Based on the number of miles within each square mile measured from the center of each cell, each cell was given a route density value in miles of road per square mile. The entire data set was then evaluated to identify "natural breaks" in the range of density values. These "natural breaks" were used to divide the data into four road density categories:

- Low – <1 mile of road/square mile
- Medium – 1 to 2.5 miles of road/square mile
- High – 2.5 to 4.5 miles of road/square mile
- Very High – >4.5 miles of road/square mile.

Groups of cells with similar density values were grouped into polygons, which are shown on Transportation Map 1. The percentage of the entire NCA in each road density category was determined by calculating the cumulative area covered by polygons in each category. The percent of the NCA in each road density category is as follows:

- Low – 23 percent
- Medium – 37 percent
- High – 31 percent
- Very High – 9 percent.

The above road density categories differ significantly from the road densities presented in the Draft RMP because the Draft RMP reflected densities that were averaged across the entire NCA. The road density categories shown herein are a more discrete representation of how road density varies across the landscape.

2.2.19 Utility and Communication Corridors (Land Use Authorizations)

Description and Summary

Section 503 of FLPMA provides for the designation of ROW corridors and encourages utilization of common utility corridors to minimize environmental impacts and the proliferation of separate ROWs. BLM policy is to encourage prospective applicants to locate their proposals within corridors.

Lands in the NCA are used by utility companies' for a variety of uses such as pipelines, power lines, telephone lines, and road systems. These are authorized by ROW documents that require certain conditions for use. Not all such facilities are within the current corridor but BLM would provide the opportunity for such use if requested. A current major use within the corridor is the 500 kilovolt power line that comes from the Midpoint Sub-station to the Boise Bench Switching Yard.

Condition and Trend

With increasing populations, and projections for an even greater growth, power needs of Boise and the surrounding areas are falling behind in reliable service to meet customer demand. A new power line corridor will be a growing power need in the Treasure Valley. Although one location would be chosen, two alternative sites are being considered. One would generally run north of the Snake River and the other would be on the south side. Both would bring power from the Midpoint Sub-station to the major customer demand center in



the western portions of Treasure Valley. No future natural gas pipeline or petroleum pipeline is planned within the next 10 years and smaller distribution lines and customer service lines will be addressed as they occur. These lines may or may not be within any designated corridor and will be addressed on a site specific basis. It is expected that additional requests for utility and communication ROWs will be forthcoming as the population increases and greater demands for energy related services are realized.

Also see Lands and Realty Section 2.2.13.



Currently there is only one corridor designated within the NCA which traverses the northeastern portion directly east of Mountain Home Reservoir (Lands Map 2).

2.2.20 Wildland Fire Ecology and Management

Wildfire, fire suppression, development, and other human activities have combined to alter the vegetative environment. Historically, about 2/3 of the wildfires in the NCA have been human-caused, and have occurred along major roads and highways, such as Interstate 84, or in areas that sustain high levels of human use, including the Mountain Home Air Force Base and the area immediately south of Kuna. Fire events occasionally threaten private property and public safety in the Wildland Urban Interfaces (WUI) including the communities of Kuna, Murphy, Mountain Home, Melba, Grandview, Bruneau, and Hammett, as well as other isolated private tracts of land and homes. Although greater in number, human-caused fires do not generally burn as much acreage as natural fires, due to their location near access corridors, which facilitates suppression activities (Vegetation Map 5).

Organized fire suppression began in the 1920s. Currently, all wildfires are aggressively suppressed with the goal of minimizing risk to public and firefighter safety and further loss of remnant shrub communities.

The slickspot peppergrass CA incorporates changes in fire management to reduce impacts to this SSP. Fire suppression within slickspot peppergrass management areas is more strictly managed than in other areas. In addition, fire break opportunities adjacent to slickspot peppergrass habitat will be evaluated, created, and maintained. These changes in fire management also benefit other sagebrush steppe obligate species, such as sage sparrows.

Fire suppression activities cannot use surface disturbing equipment in sensitive areas such as the GB-BB ACEC and portions of the Oregon Trail SRMA. Use of surface disturbing equipment for fire suppression in the remainder of the NCA occurs with the consultation of a resource advisor. Exceptions to this policy have been made where firefighter and/or public safety are threatened.

Suppression efforts have not been effective in preventing large fires from occurring during periods of heavy fire activity and multiple fire starts. Since lightning fires often start in areas away from easy access routes, a few large “disaster-type fires” can burn a very large area while still remaining within the maximum acceptable acres per decade. In addition extended drought reduces the production of annual grasses that contribute to large fire spread, and is probably the largest factor, besides fire occurrence, suppression workforce capabilities, and other variables, that has limited the size of recent wildfires.

Fuels management projects occur on approximately 500 acres annually and include:

- prescribed burning for hazard reduction;
- chemical treatments to reduce production of annual exotic species;
- spring grazing to reduce fuel loads near wildland urban interface areas; and



- seeding of native and desirable non-native vegetation.

In addition, ESR efforts are aimed at reducing flammable vegetation and replacing it with native or adapted non-native species or species which are more typical of the historical fire regime. These rehabilitation efforts have been met with limited success (see Upland Vegetation Section 2.2.8).

The Upland Vegetation Section describes both historic and current vegetation communities and fire regimes, and discusses how the native plant communities have been impacted by the invasion of exotic annual species. As a result of this vegetation change, fires occur much more frequently and can sometimes spread over large areas, due to a continuous layer of highly-flammable vegetation.

One of the goals of the National Fire Plan Cohesive Strategy is “reducing fuels and restoring fire’s ecological role in fire-adapted ecosystems”. This Strategy characterizes fire regimes into Fire Regime Condition Classes (FRCC). A fire regime is defined as a generalized description of the role fire plays in an ecosystem. It is characterized by fire frequency, seasonality, intensity, duration and scale (patch size), as well as regularity or variability.

For the purpose of this strategy, vegetation/fuel conditions are assigned three FRCC descriptors. A FRCC is defined in terms of the landscape’s departure from the historic fire regime, as determined by the current fire return interval, and the current structure and composition of the system resulting from alterations to the disturbance regime. A FRCC of Class 1 indicates a minimum departure from the historic fire regime, whereas FRCC Class 3 indicates the greatest amount of departure from the historic fire regime. Currently, the entire NCA is categorized as FRCC 3. This reflects the fact that native shrub habitats have been replaced by annual grass communities, depicted as “uncharacteristic” in the FRCC process, over much of the NCA. Those remnant areas where shrub communities still exist

are dominated by an annual grass understory which is also considered “uncharacteristic”. The fire frequency and size has increased as a result of the change in vegetation communities.

2.2.21 Special Designations

See Cultural and Tribal Section 2.2.2 and Recreation Section 2.2.16.

2.2.22 Social and Economic Conditions

2.2.22.1 Economic Conditions

The NCA sits within a four county region consisting of Ada, Canyon, Elmore, and Owyhee Counties (Planning Map 3; Socio-economic Table 2.1). Boise is the largest and most

The term “gateway community” reflects the fact that most visitors travel through one of these towns to enter the NCA. As such, gateway communities are in a position to benefit from the location of the adjacent NCA.

influential city in the region from a social and economic perspective. Kuna and Mountain Home, considered to be gateway communities to the NCA, provide the nearest source for infrastructure needs. Because activities within the NCA have the potential to affect all of these counties, the socioeconomic study area has been defined as these four counties.

Socio-Economic Table 2.1. Public Land in the NCA in Four Idaho Counties.

County	BLM Acres in NCA	Percentage of NCA
Ada	222,600	46
Canyon	600	Trace
Elmore	155,300	32
Owyhee	105,200	22
Total	483,700	100

In the past decade, population growth for the U.S. has centered on the West and South The State of Idaho ranked 5th in percentage increase between 1990 and 2000 and continues to increase at a fast pace. In fact, Idaho has seen its population expand by an additional 5.6% between 2000 and 2003. Within Idaho the southwestern region is the fastest growing region in the State. While the population



growth rate for Owyhee County has kept pace with the overall State of Idaho population growth rate, it is considerably slower than the growth rates of Ada, Canyon, and Elmore Counties (Socio-economic Table 2.2).

Although many traditional cultural patterns (i.e., ranching, farming, and a rural lifestyle) persist in the communities of Owyhee County, external forces related to population growth and shifts in regional economic bases have brought new and rapid changes to the county

in the past decade. Some previous research has found that while well-being and quality of life may be affected significantly from rapid social change, small rural western communities, like those found in Owyhee County, often do not experience lasting social disruption (Smith *et al.* 2001; Hunter *et al.* 2002). For many local people in Owyhee County, things such as neighbors, land-use policy, and sources of environmental impact are not the same as in recent memory.

Socio-Economic Table 2.2. Population Data for Idaho Counties and Cities In and Around the NCA in 1990 and 2000.

County	City	Census		# Change	% Change
		1990	2000	90-00	90-00
Ada	Boise City	126,685	185,787	59,102	46.7%
	Eagle	3,327	11,085	7,758	233.2%
	Garden City	6,369	10,624	4,255	66.8%
	Kuna	1,955	5,382	3,427	175.3%
	Meridian	9,596	34,919	25,323	263.9%
	Star	648	1,795	1,147	177.0%
	City Total	147,932	247,797	99,865	67.5%
	Rest of County	57,843	53,107	-4,736	-8.2%
	County Total	205,775	300,904	95,129	46.2%
Canyon	Caldwell	18,586	25,967	7,381	39.7%
	Greenleaf	648	862	214	33.0%
	Melba	252	439	187	74.2%
	Middleton	1,851	2,978	1,127	60.9%
	Nampa	28,365	51,867	23,502	82.9%
	Notus	380	458	78	20.5%
	Parma	1,597	1,771	174	10.9%
	Wilder	1,232	1,462	230	18.7%
	City Total	52,911	85,804	32,893	62.2%
	Rest of County	37,165	45,637	8,472	22.8%
	County Total	90,076	131,441	41,365	45.9%
Elmore	Glenns Ferry	1,304	1,611	307	23.5%
	Mountain Home AFB	5,936	8,894	2,958	49.8%
	Mountain Home	7,913	11,143	3,230	40.8%
	City Total	15,153	21,648	6,495	42.9%
	Rest of County	6,052	7,482	1,430	23.6%
County Total	21,205	29,130	7,925	37.4%	
Owyhee	Grand View	330	470	140	42.4%
	Homedale	1,963	2,528	565	28.8%
	Marsing	798	890	92	11.5%
	City Total	3,091	3,888	797	25.8%
	Rest of County	5,301	6,756	1,455	27.4%
County Total	8,392	10,644	2,252	26.8%	
Idaho	State Total	1,006,734	1,293,953	287,219	28.5%

Source: US Bureau of the Census 2001



Demographics

The racial makeup of Idaho and its counties is predominately white (Socio-economic Table 2.3). However, other racial groups are growing at a faster rate than the overall population. In

Ada and Canyon Counties, there has been a concerted effort by private companies and public agencies to diversify their workforces with recruitment efforts throughout the nation.

Socio-Economic Table 2.3. Population by Race or Racial Group in Four Idaho Counties.

Counties	White	African American	American Indian/ Alaska Native	Asian	Native Hawaiian/ Other Pacific Islander	Hispanic	Total Population
Ada	285,704	2,896	4,103	7,166	927	7,304	300,904
Canyon	112,384	698	2,216	1,705	375	17,712	131,441
Elmore	25,713	1,099	520	761	135	1,914	29,130
Owyhee	8455	27	480	64	19	1,893	10,644
State	1,201,113	8,127	27,237	17,390	2,847	64,389	1,293,953

Employment

Unemployment in Idaho has fluctuated since a recession began early 2001. However, Idaho has generally fared better than the Nation as a

whole, with the unemployment rate remaining lower than the national average (Socio-economic Table 2.4).

Socio-Economic Table 2.4. Employment Status for Four Idaho Counties.

County	Total labor force	Civilian labor force	Military labor force	Employed	Unemployed	% civilian labor force unemployed
Ada	163,955	163,045	910	156,634	6,411	3.9
Canyon	63,525	63,343	182	59,634	3,709	5.9
Elmore	13,313	10,158	3,155	9,492	666	6.6
Owyhee	4,716	4,710	6	4,389	321	6.8
State	641,088	636,237	4,851	599,453	36,784	5.8

Source: US Bureau of the Census 2002

Income

Income generation is predominately through the non-agricultural sectors (construction, manufacturing, services, etc) in Ada and Canyon Counties. Elmore and Owyhee Counties have a more extensive agricultural sector that generates 10% and 20% of personal income, respectively (Socio-economic Figures 2.1 and 2.2). This is consistent with the more rural character of these counties.

Per capita income is generally consistent with the urban versus rural character of the respective counties, except for Elmore County,

which has a large government sector with Mountain Home Air Force Base as a dominant employer.

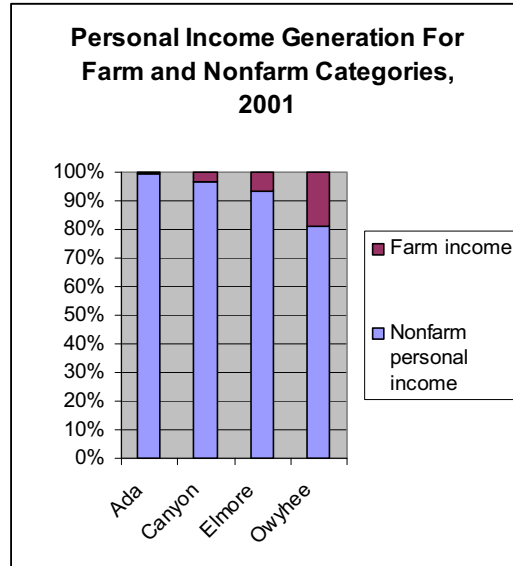
Visitation currently generates more direct economic activity in the four-county southwest Idaho region than other BLM-NCA activities (see Appendix 13 Table B.) The government sector accounts for over \$1 billion in earnings in the four-county region. OTA related earnings account for about 0.002 percent of this total. The OTA is one part of the overall picture of IDARNG operations. It is the primary training area for a much larger military operation. The IDARNG is a major employer in



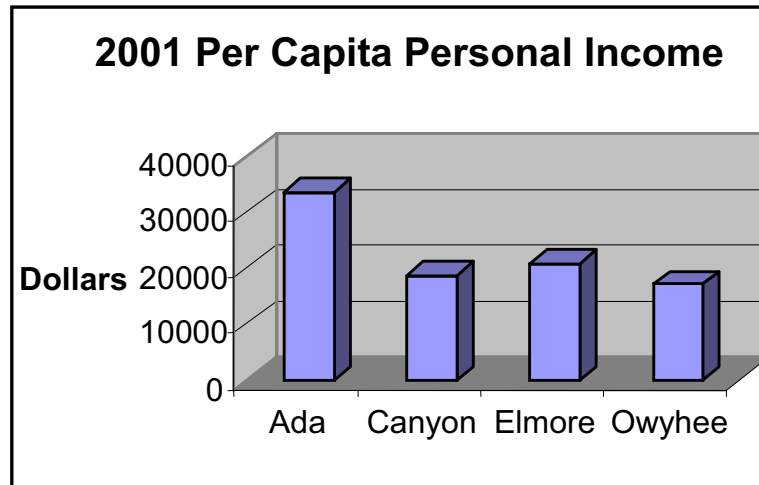
Southwest Idaho with total authorized military and civilian employment of 4,599. It is the 12th largest employer in the State of Idaho.

Annual spending of the IDARNG in 2004 was \$198 million. Construction spending in 2004 was \$11 million.

Socio-Economic Figure 2.1. Percentage of Farm and Non-farm Income in Four Idaho Counties in 2001.



Socio-Economic Figure 2.2. Per Capita Personal Income in Four Idaho Counties in 2001.



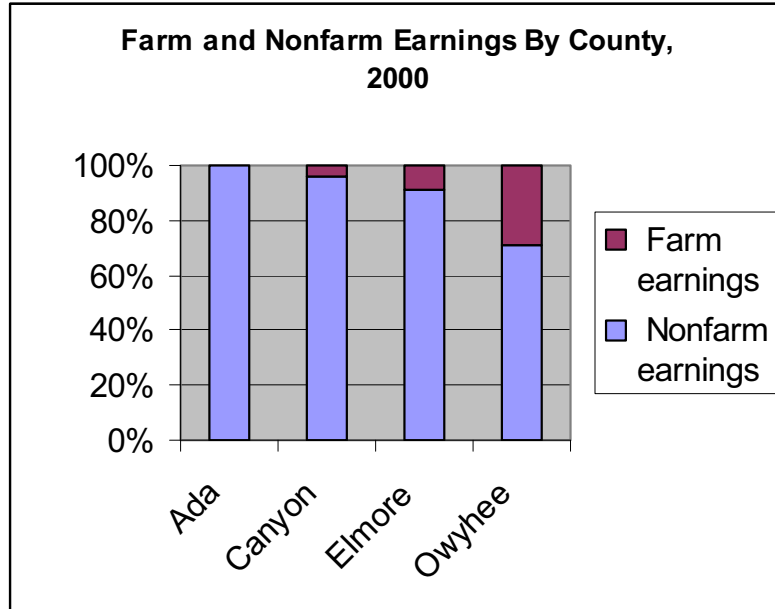
Economy

Non-farm sectoral earnings predominate throughout the counties; however, farm earnings are a significant contributor (20%) to the

economy of Owyhee County as shown on Socio-economic Figure 2.3 below.



Socio-Economic Figure 2.3. Farm and Non-farm Earnings by County.



Livestock Grazing

Southwestern Idaho is considered a diverse agricultural community of crop, dairy and livestock production. Crop production (row crops including sugar beets); seed production and dairy production in Canyon, Ada and Elmore Counties dominate the agricultural sector. However, in Owyhee County, livestock production plays a major role in generating agricultural income.

Within the NCA, a third of the livestock operators reside in Owyhee County while the remaining two-thirds reside within the remaining three county regions or elsewhere in Idaho. Operations can be classified as small (less than 100 head) to large (greater than 500 head) with the greater number of operations classified as medium size.

Recreation

Predominant outdoor recreational activities in southwestern Idaho range from hunting and fishing to OHV, hiking and bird watching (also see Recreation Section 2.2.16). It is difficult to measure contributions by recreation to the regional economy because, for some activities, markets to capture transactions do not

exist. For other recreational activities, expenditures are distributed unevenly among multiple economic sectors. The NCA generally provides recreation activities that fall within this non-market portion though equipment, food and lodging expenditures are captured in the economy.

Idaho requires off-highway motorcycles/all terrain vehicles (ATVs), snowmobiles, and other recreation vehicles (motor homes, campers, travel trailers) to be registered. Boats, motorbikes, ATVs, and snowmobiles are registered through the Idaho Department of Parks and Recreation (IDPR). Campers, motor homes, and trailers are registered through the Idaho Transportation Department. Socio-economic Table 2.5 shows the changes in motorbike and ATV registration numbers for calendar years 2001 through 2005 for Ada, Canyon, Elmore, and Owyhee Counties, Idaho.

These registration numbers are not absolutely definitive. The old IDPR Registration System counted any change of registration as a new registration, creating some duplication. There are also varying compliance rates among the various registration types. The 2002 IDPR



Mid-Winter Recreation Survey found that the State-wide average compliance rate for snowmobiles was 94%. IDPR estimates that Motorbike/ATV registration compliance may be

only 50%. The purpose of this analysis is to show trends in these recreation registrations (IDPR 2002).

Socio-Economic Table 2.5. Motorbike and ATV Registration Numbers for Calendar Years 2001 through 2005 for Ada, Canyon, Elmore, and Owyhee Counties, Idaho.

County	Registrations					2001-2005 % Change
	2001	2002	2003	2004	2005	
Ada	11,889	13,755	15,385	16,636	19,239	61.8%
Canyon	5,499	6,734	7,875	8,756	10,169	84.9%
Elmore	1,024	1,249	1,385	1,552	1,689	64.5%
Owyhee	393	531	628	677	735	87.0%
Total	18,805	22,269	25,273	27,621	31,832	74.5%

Socio-economic Tables 2.5, 2.6, and 2.7 show that off-highway motorbikes and ATV registrations have had the largest increase compared to snowmobiles (-25.9%) and RV's (9.0%). Owyhee County led the growth in registrations in percentage terms (87%), but Ada County led the growth in numbers (7,350). Ada County's growth outstripped the 2005 total registrations of Elmore and Owyhee

Counties combined. Ada County accounted for 60% of the registrations in 2005 while Canyon County accounted for 32%. Combined, these counties make up 92% of the registrations within the analysis area. The analysis area accounts for 33% of the registrations State-wide, while the population accounts for 36% of the 2000 State-wide population.

Socio-Economic Table 2.6. Recreational Vehicle (i.e., Motor Homes, Camping Trailers, Van Conversions, and Truck-mounted Campers) Registration Numbers for Calendar Years 1998 through 2002 for Ada, Canyon, Elmore, and Owyhee Counties, Idaho.

County	Registrations					1998-2002 % Change
	2000	2001	2002	2003	2004	
Ada	14,440	14,683	15,150	15,503	15,509	7.4%
Canyon	7,716	7,899	8,244	8,551	8,858	14.8%
Elmore	1,522	1,394	1,367	1,397	1,435	-5.7%
Owyhee	711	696	769	733	779	9.5%
Total	24,389	24,672	25,530	26,184	26,581	9.0%



Socio-Economic Table 2.7. Snowmobile Registration Numbers for Calendar Years 2002 through 2005 for Ada, Canyon, Elmore, and Owyhee Counties, Idaho.

County	Registrations				2002-2005 % Change
	2002	2003	2004	2005	
Ada	886	760	408	102	-88.5%
Canyon	16	26	34	54	237.5%
Elmore	999	1,112	1,197	1,122	12.3%
Owyhee	96	157	210	198	106.3%
Total	1,996	2,055	1,849	1,476	-25.9%

Socio-economic Table 2.6 shows that Ada County has the largest number of RV registrations followed by Canyon County. The four county area had a 7.3% increase in RV registrations from 1998 to 2002. Owyhee County had the biggest percentage gains (13.6%), but Ada County had the biggest gain in numbers (1,494). Ada County's gains were almost double that of Owyhee County's total RV registration numbers. Ada County accounted for 60% of the RV Registrations in 2002, while Canyon County accounted for 32% of the registrations. The four county area accounts for 29.6% of the State-wide RV registrations.

Recreation Activity

Ada and Canyon Counties have the largest population within or adjacent to the NCA (92% of the population). These counties also account for 92% of the motorbike/ATV, RV, and snowmobile registrations. Recreation Vehicles account for the highest number of registrations followed by motorbikes/ATV's. Motorbike/ATV registrations are increasing at a 17.5% annual rate.

The analysis area has a slightly lower percentage of recreation vehicle types (motorbikes/ATV, RV and snowmobile) on a per capita basis than other parts of Idaho. However, the large population of motorbikes/ATVs and RVs within the NCA presents a large demand for those opportunities close to home. The 2002 IDPR Recreational Vehicle Survey found that 66% of motorbike/ATV enthusiasts travel no more than two hours to get to their

riding location, which would include all of the NCA (IDPR 2002).

Southwestern Idaho saw dramatic change during the 20th century. The once sleepy towns outside of Boise are now changing. The rapid urbanization of the greater Boise metropolitan area has reached out to include communities such as Kuna and Marsing. Mountain Home, though to a lesser extent due to the long term establishment of the Air Force Base, has also seen rapid growth. Factors that established the social norms of years past get disrupted by new entrants and a new set of social norms becomes established. In addition, there has been a concerted effort to diversify the population in the past 10-15 years. Many larger firms located in the greater Boise area have made it a policy to bring in new employees from different parts of the U.S. as well as the world. As time goes by, cultural diversity will enhance a more cosmopolitan look and feel to the region. This may influence how the larger population views public land and its many uses.

One key theme emerged from the qualitative data collection efforts of this assessment. One theme of note is access to public lands and resources and the core of this issue is described briefly below.

Access to Public Lands

Access to the public lands is a continuing issue in the west. The land ownership pattern surrounding the NCA is a mixed bag of State,



private and military holdings which would require access agreements (or easements) for legal access. The issue of access is more critical in Ada and Elmore Counties to the north and Owyhee County to the south. Since the NCA contains a limited number of acres in Canyon County it is not expected to be an issue in this region.

Public access will continue to be a growing problem as opportunities and population growth in southwestern Idaho continues to rise. Also see Lands and Realty Section 2.2.13, Recreation Section 2.2.16 and Transportation Section 2.2.18.

2.2.22.2 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, focuses federal attention on the environment and human health condition in minority and low income communities, promotes non-discrimination in federal programs, and provides access to public information and an opportunity to participate in matters that may affect these populations. Local residents in communities surrounding the NCA include low-income and minority populations. However, near the NCA no distinct areas of low-income minority populations were identified, nor were any identified that depend upon the NCA for such purposes as subsistence hunting or fishing. However, the lands within the NCA are used by the Shoshone-Bannock and Shoshone-Paiute Tribes and will be managed consistent with the Shoshone Bannock treaty rights and the Shoshone-Paiute aboriginal rights. Actions proposed under the alternatives would not cause disproportionate adverse human health or environmental impacts to minority and/or low-income populations. Restoration programs associated with all the alternatives would occur within the NCA and would not affect populations in nearby communities. NCA operations and permitted uses, including reserved tribal treaty rights, would continue similar to current conditions, including recreation, grazing, and hunting in permitted areas. All areas, except the OTA Impact Area, would

remain available and open to all ethnic groups and income levels, and no action would displace users to low-income or ethnically sensitive areas. For these reasons, environmental justice was dismissed as an impact topic in this document. Any adjustments in the boundary of the NCA and/or a reduction in public lands available for tribal use would not result in a reduction in natural resource values available for tribal use. Also see Social and Economic Conditions Section 2.2.22.

2.2.22.3 Hazardous Materials

Hazardous materials management involves the prevention of illegal hazardous materials actions on public lands; the proper authorization, permitting, and regulation of the uses of hazardous materials; and the timely, efficient, and safe responses to hazardous materials incidences. Educating the public, law enforcement involvement, and oversight of permitted operations are steps taken to ensure hazardous materials are safely managed. Although BLM issues no authorizations that could result in the direct storage or release of hazardous materials, the unexpected release or spilling of hazardous materials is proactively addressed through SOPs and standard terms and conditions that are attached to authorizing documents. There are no hazardous materials used, or disposed of, in the NCA except in the OTA and this issue is being addressed through the proposed withdrawal of the OTA Impact Area to the DoD.

Description and Summary

The main goal of the hazardous materials program is addressing immediate and urgent threats to human health and safety and any environmental concerns from the release, illegal disposal, or use of hazardous materials. Educating the public about the dangers of this issue and increased law enforcement presence and cooperation are key to resolving this issue. The illegal dumping issue also includes solid waste, which makes up the bulk of activity on these lands. The amount of solid waste illegally dumped on public lands is projected to increase due to increases in construction and population in the area. Roughly 10 to 15 new



solid waste dumping sites are discovered every year in the area with the majority of the sites within 5 miles of urban areas.

Another source of hazardous materials activity is from lands actions that involve ROW, leases, and permits. Examples of these types of actions are pipelines (oil and gas), telecommunication sites, military sites, and transportation facilities. All lands and minerals actions are reviewed both internally and externally (if appropriate) for compliance with federal and State regulations during the application process. Special stipulations are also developed as part of the permit or lease to safeguard human health, environmental damage, and BLM liability.



Many of the **hazardous material** incidences are due to illegal dumping (e.g., drug lab waste, household hazardous waste) which averages approximately 6 sites every year. This type of action will most likely continue in the future.

Hazardous materials may legitimately be brought onto BLM administered public land during weed control or project activities. The types of hazardous materials used for weed and insect control include herbicides and pesticides. The general types of hazardous materials that may be present during project activities include, but are not limited to, petroleum products (fuels and lubricants), solvents, paints, explosives, and cleaning chemicals.

The IDARNG training range is listed on the federal Facilities Hazardous Waste Compli-

ance Docket (ID0572890002) due to use of the area for military operations that included ordnance firing, storage, and disposal. In 1993, an EPA Preliminary Assessment (PA) was conducted for the area. Due to the remoteness of the site, the lack of target populations, and the nature of the hazard and potential pathways, the site was listed for no further action under criteria contained in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA). There is currently an Artillery Impact Area and other live firing ranges in operation at this facility. This site is currently operated under the authority of an MOU with the BLM. However, the Impact Area will be proposed for withdrawal to the DoD consistent with BLM policy.

An active hazardous waste disposal facility, operated by US Ecology of Idaho, Inc., is located on private land adjacent to the NCA. The facility has operated since 1973 under various names and is primarily a storage and treatment operation. Associated with this facility is the transportation of hazardous waste by road and rail through the NCA. A railroad transfer station is located off Simco Road, where hazardous waste is off-loaded from rail cars to trucks for transportation to the US Ecology of Idaho, Inc. facility in Owyhee County. A portion of this transport is on Simco Road through the NCA. Current BLM policy states that no public lands will be leased or permitted for the storage, treatment, or disposal of hazardous waste, nor will public lands be leased for purposes of sanitary landfills.

All hazardous materials incidences on public lands are responded to as outlined in the Boise District Hazardous Materials Contingency Plan. All actions are consistent with current federal and State regulations and laws.



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3.1 INTRODUCTION TO ALTERNATIVES

The Bureau of Land Management (BLM) identified four alternatives (including current management) for management of the Snake River Birds of Prey National Conservation Area (NCA) through tribal consultation and using public input as well as input from the Resource Advisory Council (RAC), Intergovernmental Coordination Group (ICG), staff, and cooperators (Idaho Army National Guard [IDARNG] and Owyhee County). Ada, Elmore and Canyon Counties were also kept informed of the planning process.

The National Environmental Policy Act (NEPA) and BLM resource management planning regulations require the formulation of a reasonable range of alternatives (different combinations of resource emphasis and management actions) that seek to address identified issues and management concerns.

Each alternative must be evaluated to ensure consistency with:

- The purpose and need for developing the land use plan (Chapter 1).
- Current laws, regulations, and policies; (Planning Criteria, Appendix 2).
- Achieving, or making progress toward achieving the Desired Future Conditions (DFC) (Chapter 1).

Each alternative addresses the DFC to some degree and in varying amounts of time; however, not all will meet the goals equally. In addition, each alternative meets criteria outlined in BLM land use planning regulations, which requires that each alternative be a complete Resource Management Plan (RMP). Alternatives must be reasonable (i.e., those that may be feasibly carried out based on technical, environmental, and other factors.). Alternatives must meet the project purpose and need (See Chapter 1); and each alternative must:

- be compatible with the purposes for which the NCA was established;

- provide for a mix of resource protection, management use, and development;
- be responsive to the issues (each issue must be addressed in at least one alternative);
- meet BLM specific program requirements for the range of alternatives; and
- be consistent with the planning criteria.

A range of objectives and management actions was developed for resources related to the issues identified. The combination of these objectives and management actions form the alternatives. Decisions from the existing land use plans that are still valid have been carried forward.

The objectives and management actions may vary across the alternatives, but as mentioned earlier, all have the ultimate goal of meeting the DFC. Objectives are generally measurable and are intended to be the “pathway” to achieving the DFC. Objectives form the basis for monitoring effectiveness in making progress toward the DFC.

Chapter 5 describes the implementation and monitoring program that would be used to determine if the management needs to be changed to make progress toward achieving the DFC.

3.1.1 Implementation through Adaptive Management

Although the following alternatives were developed with the best available information, they were also developed with the understanding that resources in the NCA, and our understanding of them, are dynamic. As the resources and our knowledge about them change, there may be a need to modify what and how the plan is implemented with the appropriate level of planning and NEPA as described in Chapter 1, Section 1.9 Overview of the BLM Planning Process. These modifications would be carried out through an adaptive management process described in Chapter 5.



3.1.2 Alternatives

3.1.2.1 Profile of the Four Alternatives

The Proposed RMP and Final EIS analyzes the current situation (no action alternative) and three alternatives that address the range of management options identified to meet or make significant progress toward achieving the DFC. Each alternative consists of three key elements.

- The first is the theme, ranging from an emphasis on habitat restoration being the highest priority to an emphasis on maintaining traditional uses with a lower rate of habitat restoration. All alternative themes include management actions that are consistent with the purposes for which the NCA was established and still focus on achieving the DFC.
- The second element is the objectives, which are generally measurable intermediate steps used to determine progress toward achieving the DFC. Many of the objectives are fully integrated and address multiple resource programs.
- The third element is the management actions, which are resource or activity specific, and in total, represent the integrated actions to be taken to achieve the objective(s).

The three elements may vary between the alternatives. The overall themes determine objectives and subsequently the type of management actions to be used in each alternative.

The no action alternative (Alternative A) may not achieve the DFC because it is based on the current management carried forward into the future and was not developed specifically to achieve the DFC. Alternatives B, C and D generally achieve the DFC. However, there are differences in the rates at which the DFC and objectives would be met, the priorities within the objectives, and the emphasis placed on different activities. DFC and objectives would not be met within the same timeframe for each alternative; however, it is anticipated that significant progress would be made toward achieving the DFC within a 20-year pe-

riod. Funding and staff levels, changes in technology, and changes in natural conditions such as drought would affect rates of improvement or change.

The alternatives are presented in two formats. The first, the narrative organized by resource program, discusses each of the alternatives based on that program. This discussion provides the rationale for the objectives and management actions. The second format is a side-by-side comparison summary table of the management actions. Unless otherwise indicated, acre figures represent only public land.

3.1.2.2 Alternatives Considered in Detail

Alternative A – Current Management (No Action)

Theme: The habitat restoration program would be driven primarily by emergency fire rehabilitation processes, resulting in a minimal increase in the acreage of shrub communities. Current uses, consistent with the 1996 NCA Management Plan, would be accommodated, but could be moderated based on new laws, regulations, or policies.

Key elements include:

- Protecting remaining shrub communities through continued wildfire suppression; however, approximately 50,000 acres of remnant shrub habitat could be lost to wildfire in the next 20 years.
- Restoring of up to 10,000 acres of shrub habitat.
- Reducing hazardous fuels on up to 10,000 acres.
- Continuing IDARNG military training activities at current levels and in current locations in the OTA.
- Managing livestock grazing through the Standards and Guidelines (S&G) process (Appendix 3) while accommodating restoration and fuels management projects.

Alternative B

Theme: Emphasis is on restoring a moderate amount of raptor and raptor prey habitat in



addition to those areas affected by emergency fire rehabilitation and fuels management projects. This alternative would accommodate recreation, military and commodity uses that are compatible with the purposes of the NCA.

Key elements include:

- Protecting remaining shrub communities through wildfire suppression; however approximately 30,000 acres of remnant shrub habitat could be lost to wildfire.
- Extensive use of wildfire pre-suppression activities such as fire breaks, prescribed fire, and grazing to maintain firebreaks.
- Restoring 50,000 acres of shrub habitat.
- Completing 70,000 acres of fuels management projects.
- Restricting or modifying IDARNG training activities including the restriction of off-road vehicle maneuver training on 22,300 acres in the OTA to protect existing shrub communities and providing 20,400 additional acres outside of the OTA to enhance military maneuver training.
- Managing livestock grazing through the S&G process (Appendix 3) with priority placed on protecting existing shrub communities and enhancing the success of restoration efforts.

Alternative C

Theme: This alternative emphasizes the restoration and rehabilitation of all non-shrub areas outside the OTA to improve raptor and raptor prey habitat. To support this level of habitat restoration, recreation and military training would be substantially restricted, and livestock grazing preference would be eliminated.

Key elements include:

- Protecting remaining shrub communities through aggressive wildfire suppression; however, it is anticipated that about 15,000 acres of remnant shrub habitat could be lost to wildfire.
- Restoring 130,000 acres of shrub habitat

- Completing 100,000 acres of fuels management projects.
- Restricting or modifying IDARNG training activities including the restriction of off-road vehicle maneuver training on 18,400 acres and removing 3,900 acres of special status plant (SSP) habitat from the OTA.
- Except for fuel reduction projects, there would be no livestock grazing allowed on public land.

Alternative D – Proposed Alternative

Theme: This alternative emphasizes the restoration and rehabilitation of all non-shrub areas outside the OTA to improve raptor and raptor prey habitat, while imposing only moderate restrictions on recreation, military training, and commercial uses.

Key elements include:

- Protection of remaining shrub communities through aggressive wildfire suppression; however, it is anticipated that about 30,000 additional acres of remnant shrub habitat could be lost to wildfire.
- Restoration of 130,000 acres of shrub habitat.
- Completing 100,000 acres of fuels management projects.
- Restricting or modifying IDARNG training activities including the restriction of off-road vehicle maneuver training on 22,300 acres in the OTA to protect existing shrub communities and providing 4,100 additional acres outside of the OTA to enhance military maneuvers.
- Managing livestock grazing through the S&G process (Appendix 3) with priority placed on protecting existing shrub communities and enhancing the success of restoration efforts.

This alternative was selected as the proposed alternative based on an examination of the following:

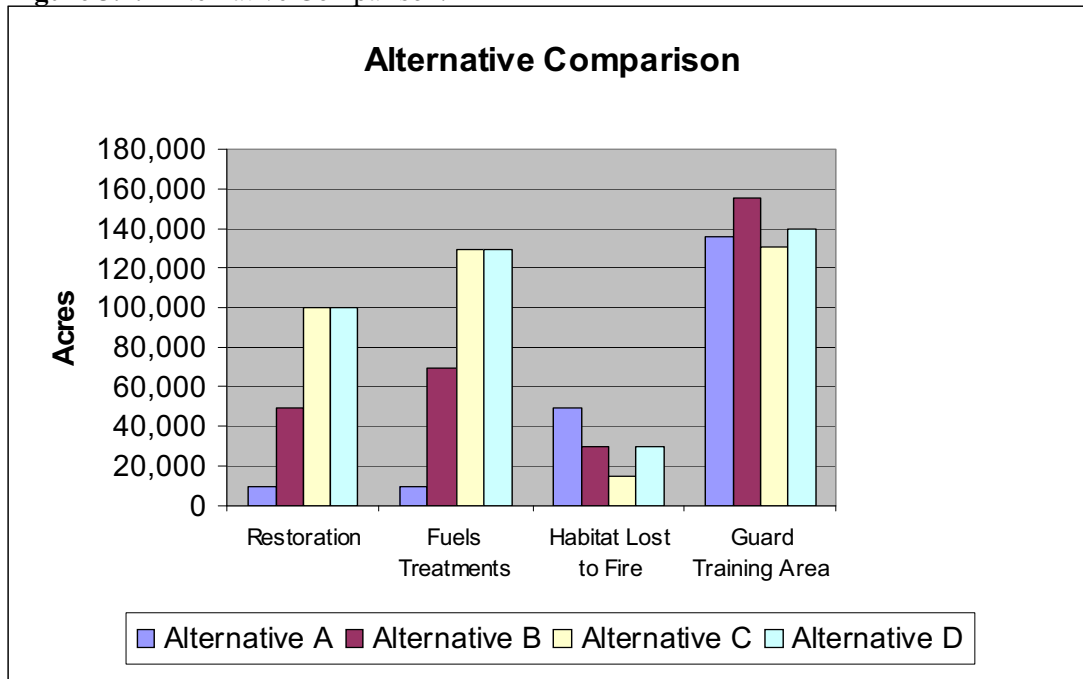
- NCA-enabling legislation;
- Environmental impacts;



- Issues raised throughout the planning process;
- Specific social and environment values, resources, and resource uses;
- Conflict resolution;
- Laws and regulations.

Figure 3.1 below displays the difference between the alternatives based on the differences in the acreages for the key management actions.

Figure 3.1. Alternative Comparison.



3.1.2.3 Alternatives Considered but Not Analyzed in Detail

No Military Training within the NCA

Section 4(e) of the NCA enabling legislation specifically provides for continued military training in the NCA, pending a determination of whether such use is compatible with the purposes for which the NCA was established. The legislation further requires the National Guard to conduct their activities in a manner that protects the raptor populations and habitats and the scientific, cultural, and recreational resources and values of the NCA. To obtain an objective analysis, BLM contracted with Argonne National Laboratory (Argonne) to help determine if ongoing military and non-military activities in the Orchard Training Area (OTA) were consistent with the purposes of the NCA (Argonne National Laboratory 2004). Argonne evaluated the effects of all

activities except for livestock grazing. The resulting report, "Characterization of the Effects of Use Authorizations on Soil, Vegetation, Prey and Raptors at the Orchard Training Area, Idaho" did not identify wholesale conflicts with military training in the NCA. Information in the report did, however, allow BLM to identify potentially incompatible issues related to two areas of training: 1) the accumulation of munitions-related chemicals and unexploded ordnance in the soils of the OTA Impact Area, and 2) the adverse effects of off-road vehicle activity (both military and non-military) on shrub communities. BLM determined that nothing could be done to eliminate, reduce, or mitigate munitions-related chemicals and unexploded ordnance that had been accumulating for over 50 years in the Impact Area. Instead, BLM is proposing, under all RMP alternatives, that the Im-



pact Area be withdrawn to the Department of Defense (DoD) to ensure that the agency responsible for the accumulations is also responsible for any liability for associated clean-up activities that might be required in the future. The other potentially incompatible activity was military and non-military off-road vehicle activity, and the associated adverse effects on soils and vegetation, especially shrub communities. These impacts are being addressed through management actions that restrict off-road vehicle use throughout the NCA. Based on the above considerations, a wholesale determination of incompatibility is currently unsupported, and a “no military training” alternative will not be analyzed. In addition, military presence in the area provides increased fire suppression capability, expanded law enforcement, and staff and funding for enhanced resource management.

Complete Withdrawal of the OTA

Some have asked why BLM is not analyzing an alternative that proposes a withdrawal of the entire OTA to the DoD. The NCA-enabling legislation authorizes the Secretary of Interior, acting through the BLM, to manage the public lands in the NCA. The NCA-enabling legislation underscores BLM management authority and responsibility by mandating that BLM manage the lands, including the OTA, in a fashion that ensures the long-term viability of the raptor populations and habitats for which the NCA was established. Complete withdrawal of the OTA is inconsistent with the Congressional intent of this legislation. The only purpose for withdrawing all or a portion of the OTA to the DoD would be to mitigate health or safety hazards associated with military training, and to minimize BLM liability for remediation of unexploded ordnance and munitions-related chemical soil contamination. Since public health or safety hazards related to unexploded ordnance and munitions-related chemicals do not exist outside of the Impact Area, no public interest would be served by withdrawing the entire OTA. As such, BLM would recommend to Congress that only the Impact Area be withdrawn to the DoD.

Wildland Fire Use

The objective of a wildland fire use project is to obtain a resource benefit(s), while reducing suppression costs. In the NCA, however, the landscape scale change to a cheatgrass-dominated ecosystem has modified the way we approach wildfire management. There is a potential benefit to allowing a wildfire to burn through a cheatgrass area, because it removes this undesirable vegetation and allows an opportunity to initiate habitat restoration treatments without having competition from cheatgrass cover for a short time after the fire has occurred (or until cheatgrass can re-occupy the site). While we recognize the potential benefits of allowing a wildfire to burn through a cheatgrass area as a step in habitat restoration, the risk of having a fire expand beyond the area anticipated during the fire season is too great in the NCA. Therefore, wildland fire use is not appropriate in the NCA. Prescribed fire is a tool that may play a role in habitat restoration and fuels management, and may be used on a limited basis. The invasion of non-native plants has changed the natural fire regime from infrequent fires (50-125 years) to frequent fires (3-5 years). By adding more fire to the already damaged ecosystem, we would only further alter the historic fire regime and the native plant communities adapted to that regime. By suppressing fires, we hope to retard the rate at which the ecosystem is being altered, and to begin to restore it to one more characteristic of the Great Basin Sagebrush Steppe. Though wildland fire use certainly has positive applications in some instances, we believe its use in the NCA would further jeopardize resource values that we are mandated to conserve and protect. Thus, wildland fire use would not allow BLM to meet DFC. As a result, wildland fire use will be dropped from further consideration, and when wildfires threaten the NCA, we would continue to use an Appropriate Management Response (AMR) that is consistent and compatible with the affected resource values and other priorities (i.e., human life and property). The practice of using wildland fire to achieve specific resource objectives or benefits would not be used in the NCA.



Wind Energy

The problem of avian mortalities at wind energy developments is a recent phenomenon compared to power lines and communication towers (Olendorff *et al.* 1981, APLIC 1994). Wind energy development projects in a number of locations worldwide have affected raptors and other wildlife species to various degrees. Some wind energy developments have been shown to adversely impact wildlife, especially birds and bats and their habitats (USFWS, 2003).

The effects of wind energy developments on birds have raised important legal, sociological, and ecological issues in the permitting and operation of wind energy plants (Anderson *et al.* 1999; USFWS 2003). The compatibility of these developments in the NCA is related to their potential impacts to nesting, migrating, and wintering raptor populations, as well as other wildlife species. The NCA supports the highest density of nesting raptors in North America (over 700 nesting pairs representing 15 species), as well as tens of thousands of migrating raptors (representing eight species). Because the NCA was established for the purpose of conserving, protecting, and enhancing raptor populations and habitats, BLM needs to ensure that potential wind energy developments are compatible with the enabling legislation. The compatibility determination needs to take into account the associated infrastructure and overall footprint of the proposed development(s), including new roads and powerlines.

Erickson *et al.* (2002) concluded that the amount and extent of raptor use may be a predictor of raptor risk. In other words, the greatest risk of harm to raptors from wind developments occurs in areas supporting the greatest numbers of raptors. Erickson *et al.* (2002) also provided information on waterfowl, passerine, and bat mortality at wind energy sites. Sites with year-round waterfowl use have generally shown the greatest mortality; both resident and migrant passerine species are killed at sites; and bat mortalities at sites most likely involve migrant or dispersing bats.

According to the U.S. Fish and Wildlife Service (USFWS 2003), the effects on avian and bat species are variable and can be species-, season-, and site-specific. Even low collision mortality rates at these sites may be significant for populations of some birds, especially large, long-lived species with low annual productivity (like raptors). Wind developments may also affect avian and bat behavior by acting as barriers to movement. Instead of flying between turbines, birds may fly around the outside of a turbine string or cluster. The cumulative effects of large wind developments may be considerable if bird movements are displaced as a consequence.

Many of the newer, larger, wind turbine designs now require aviation warning lights (FAA requirement), with towers up to 400 ft high, and blade lengths up to 160 ft. In North America, many avian species (including passerines and owls), and probably all bat species, migrate at night and can be attracted to lights, especially during inclement weather. During these situations, nocturnal migrants can become disoriented and strike tall lighted structures.

The Washington Department of Fish and Wildlife (2003), among other recommendations and guidance, suggests the following:

- Wind project developers should be discouraged from using or degrading high value habitat areas.
- Avoid high bird concentration areas, especially concentration areas of sensitive status species, and breeding sites.
- Encourage wind energy development in agricultural and already disturbed lands, including using existing transmission corridors and roads where possible.

Based on the above information, many geographic areas and habitat types in the NCA are probably not suitable for wind energy development in the context of the avian and bat use.



In addition to avian and bat collision risk and mortality issues, habitat alteration, destruction, and fragmentation are also major concerns.

The entire Snake River Canyon, including the rim area and a possible set back buffer distance (e.g., 400 meters), is probably inappropriate for any type of wind development due to the high degree of use by raptor species, such as golden eagles (*Aquila chrysaetos*) and prairie falcons (*Falco mexicanus*). In addition, many or all of the buttes in the NCA should be excluded from wind development due to the thermal lift and soaring environment they provide many bird species, including many raptor species. Some buttes also provide important raptor nesting habitat.

Much of the sagebrush habitat in the NCA is probably also inappropriate for wind development due to the important foraging, nesting, and wintering habitat it provides to many avian species. Sagebrush is important foraging habitat for raptor species such as golden eagles, ferruginous hawks (*Buteo regalis*), western burrowing owls (*Athene cunicularia hypugaea*), northern harriers (*Circus cyaneus*), short-eared owls (*Asio flammeus*), and rough-legged hawks (*Buteo lagopus*). In addition to sage obligate species, such as Brewer's sparrows (*Spizella breweri*) and sage sparrows (*Amphispiza belli*), sagebrush is also important nesting and/or wintering habitat for raptor species, including ferruginous hawks, rough-legged hawks, northern harriers, western burrowing owls, and short-eared owls.

Based on the above information, we must recognize that the NCA supports the densest concentration of nesting raptors in North America, as well as incredible numbers of migrating raptors. The NCA also provides important habitat for passerine birds, upland birds, bats, and waterfowl. Wind energy development projects located in almost any location in the NCA could pose potentially unacceptable hazards for one or several of these species during certain seasons. As such, wind energy developments would be incompatible with the purposes for which the NCA was established, and

thus, wind energy development will not be discussed further.

3.2 DESCRIPTION OF ALTERNATIVES

3.2.1 Air Quality

Rationale

The “Interim Air Quality Policy on Wildland and Prescribed Fires” issued by the U. S. Environmental Protection Agency (EPA) on April 23, 1998 directs public land managers to protect public health and welfare by mitigating the impacts of air pollutant emissions on air quality and visibility for all wildland and prescribed fires managed to achieve resource values.

Standard Operating Procedures

- Emissions from point and non-point sources would be limited by requiring and implementing mitigation measures and/or Standard Operating Practices (SOPs).
- An approved burn plan that includes information and techniques to reduce or alter smoke emission levels would be in place prior to implementing any prescribed burn.
- All prescribed fire actions would be coordinated with other affected agencies through the Montana/Idaho Smoke Management Program certified by EPA and Idaho Division of Environmental Quality (DEQ).

Description of Alternatives for Air Quality

Management Actions Common to All Alternatives

The air resource program would be managed in the same general manner in all alternatives in accordance with laws, regulations and policies, with the goal of meeting current standards. Consequently, the management of air resources will not be addressed again in other alternatives. In accordance with the planning criteria and the Clean Air Act, all authorized actions would meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations.



Prior to the actual ignition of any prescribed fire, an approved prescribed burn plan would be in place and adhered to throughout the project. The majority of fuel types do not allow for opportunities to reduce emissions; therefore, emissions would be managed primarily by timing and atmospheric dispersal. All prescribed fire actions would be coordinated with other affected agencies.

Emissions from point and non-point sources would be limited by requiring and implementing mitigation measures and SOPs. An example of a point source would be emissions from a smoke stack. Many point sources are specifically regulated by State agencies. Examples of non-point sources are the dust from a haul road and a SOP for that scenario could be to apply water or chemical dust suppressant or limit the number of runs per day or the speed limit.

Air Table 3.1. Objectives and Management Actions by Alternative for Air Quality.

Alternative A	Alternative B	Alternative C	Alternative D
Objectives:			
Meet or exceed the National Ambient Air Quality Standards and the Prevention of Significant Deterioration regulations with all authorized actions.			
Management Actions:			
Management actions are derived from the legislation and are covered under Standard Operating Procedures.			

3.2.2 Cultural and Tribal Resources

Rationale

Management of cultural resources by BLM is guided by laws, executive orders (EO), regulations, and policies. The National Historic Preservation Act (NHPA) of 1966, as amended, directs Federal agencies to provide leadership in the protection and preservation of prehistoric and historic cultural properties that have been determined eligible for listing or are listed in the National Register of Historic Places (NRHP). Section 106 of the NHPA directs Federal agencies to consider the effects of agency and agency-approved actions that could affect significant archaeological and historic properties through a process of inventory, evaluation and effects analysis, and consultation with the American Indian Tribes, State Historic Preservation Office, the Advisory Council on Historic Preservation, and interested publics. Section 110 directs agencies to establish programs to inventory, evaluate and nominate sites to the NRHP and to protect, preserve, manage, and maintain cultural properties.

The alternatives are differentiated by varying levels of proactive cultural resource manage-

ment, site impact monitoring, site stabilization, protection or salvage of threatened or at-risk sites, research, and interpretive projects that would extend beyond the minimum Section 106 compliance actions.

As part of the BLM cultural resource management program, the IDARNG protects and monitors cultural and historic sites within the OTA under the requirements of a Cultural Resources Memorandum of Agreement, which is an addendum to the OTA Memorandum of Understanding (MOU). IDARNG annually monitors 15 to 20 known cultural sites in the OTA.

Standard Operating Procedures

- American Indians would continue to have access to the NCA for hunting, fishing and gathering and to practice their religion and culture. Sites and traditional cultural properties deemed to be at risk from natural or human caused factors would be protected.
- Section 110 surveys would continue to be conducted. Based on historic numbers, it is estimated that 80 to 240 acres would be surveyed for cultural resources per year.



- Outreach through interpretation and education; data recovery and recordation; and site stabilization activities would continue.
- Adverse impacts to cultural resources would be mitigated with specific management actions chosen for each project. Management actions could be chosen from a menu of solutions that include, but are not limited to the following:
 - o Physical avoidance of the site by moving the proposed project.
 - o Fencing of the site to protect the cultural properties.
 - o More complete documentation of the site with additional site recordings such as photographs, site maps, sketches, or other data recovery techniques implemented.
 - o Preservation of the site by limiting surface collection of artifacts.
 - o Archaeological testing.
 - o Data recovery through salvage excavations.
 - o Full data recovery through scientific excavations.
 - o Site-specific mitigation of potential adverse impacts.

Description of Alternatives for Cultural and Tribal Resources

Cultural and Tribal Resources – Alternative A

Cultural resources would continue to be managed in a way that meets legal and regulatory requirements and policy mandates. Some proactive measures would be implemented, including limited environmental education and interpretive programs to heighten public awareness of the value of cultural resources.

Approximately 3,900 acres in Priest Ranch, Trueblood Wildlife Management Area (TWMA), Gold Isle, and Pasture 8B of the Battle Creek Allotment would continue to be closed to livestock grazing.

The 26,300-acre Guffey Butte-Black Butte (GBBB) Archaeological District (Cultural Map 1) would continue to be managed under

the protection of its Area of Critical Environmental Concern (ACEC) designation.

The 3,300-acre Oregon Trail Special Recreation Management Area (SRMA) would continue to be managed according to the 1984 Oregon Trail Management Plan. Highlights of the plan call for the protection, interpretation, marking and proper use of the components of the Oregon National Historic Trail and associated historic routes. The goal of the plan is to protect cultural resources and the scenic resources along the Trail, while providing the public with appropriate recreational and educational opportunities. The Oregon Trail SRMA would be managed as Visual Resource Management (VRM) Classes I and II (VRM Map 1).

Cultural and Tribal Resources – Alternative B

Cultural resources would be managed as described in Alternative A, but with increased cultural resource surveys, cultural resource site monitoring, and cultural resource interpretation and outreach projects.

To reduce grazing-related impacts to cultural resources, livestock grazing would be eliminated or seasonally restricted on 8,600 acres (Grazing Map 5).

As in Alternative A, the GBBB Archaeological District (Cultural Map 1) would continue to be managed under the protection of the ACEC designation.

The Oregon Trail SRMA would be enlarged to 7,900 acres to incorporate those portions of the Trail that are currently not managed under an SRMA designation and would be managed as VRM Class III (Recreation Map 2, VRM Map 2). Heightened emphasis would include restrictions on surface disturbing activities and potentially increased site monitoring and law enforcement patrols.



**Cultural and Tribal Resources –
Alternative C**

Cultural resource protection would not include site-specific interpretation except at existing locations. Generic public education programs would continue to underscore the importance and sensitivity of cultural resources, but they would not be highlighted by site-specific interpretation or public outreach. Every effort would be made to protect cultural resources in place without actions such as site excavations or removal of objects. This alternative would emphasize changes to other uses as opposed to disturbing the cultural resource site.

There would be no public land grazing administered by BLM except for fuels and weeds management purposes.

Under this alternative, the GBBB Archaeological District and the Oregon Trail SRMA would be managed as discussed in Alternative B; however, a wider and more extensive buffer around the Oregon Trail would be designated VRM Class II to protect a wider viewshed (VRM Map 3).

**Cultural and Tribal Resources –
Alternative D – Proposed Alternative**

Alternative D would be similar to Alternative B; however, in order to remove redundant layers of protection, the ACEC designation would be removed from the GBBB Archaeological District. The area would continue to be protected from acquisition or mineral entry under the withdrawal language provided in the NCA-enabling legislation. The Oregon Trail SRMA would be enlarged as described in Alternative B; however, it would be protected as VRM Class II (VRM Map 4).

To protect cultural and tribal values, livestock grazing would continue to be restricted from 3,900 acres as described in Alternative A. In addition, 3,400 acres on Kuna Butte would be classified as chiefly valuable for purposes other than grazing, including recreation, special status plants (SSP), and cultural resources. As such, the area would be deleted from the Sunnyside Spring/Fall Allotment, and the area would only be grazed for fuels and weeds reduction purposes on an as-needed basis (Grazing Map 6). Every effort would be made to protect cultural resources in place without actions such as site excavations or removal of objects.

Cultural and Tribal Table 3.1. Objectives and Management Actions by Alternative for Cultural and Tribal Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objective:			
Protect cultural resources from adverse impacts or mitigate the adverse impacts.	Manage cultural resources by emphasizing mitigation and public interpretation.	Protect (in place) cultural resources from adverse impacts or through mitigation.	Same as Alternative B.
Management Actions:			
American Indians would continue to have access to the NCA for hunting, fishing and gathering and to practice their religion and culture.			
Vehicles would be restricted to designated routes in the GBBB Archaeological District.			
As opportunities arise, lands would be acquired that contain significant natural or cultural resources.			
The GBBB Archaeological District would continue to be managed as an ACEC.			The GBBB ACEC designation would be revoked.



Cultural and Tribal Table 3.1. Objectives and Management Actions by Alternative for Cultural and Tribal Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
The 3,300-acre Oregon Trail SRMA would continue to be managed as such (Recreation Map 1).	The Oregon Trail SRMA would be enlarged to approximately 7,900 acres (Recreation Map 2).		
The Oregon Trail would be protected as VRM Classes I and II (VRM Map 1).	The Oregon Trail would be managed as VRM Class III (VRM Map 2).	The Oregon Trail would be protected as VRM Class II (VRM Maps 3 and 4).	
Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would not be grazed (Grazing Map 4).	Same as Alternative A and grazing would be eliminated or seasonally restricted on an additional 4,700 acres (Grazing Map 5).	There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A and Kuna Butte (3,400 acres) would be grazed intermittently for fuels and weeds reduction (Grazing Map 6).
Limited cultural resource public education and interpretation would be accomplished.	Cultural resource protection would be emphasized through both public education and site-specific interpretation.	Cultural resources would be emphasized through public education, but not through site-specific interpretation.	Same as Alternative A.

3.2.3 Fish and Wildlife Rationale

Pursuant to Section 3(a)(2) of the NCA-enabling legislation, BLM is required to manage the NCA to “...provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith...” Section 2 (4) of the Act defines the term “raptor habitat” to include the habitat of the raptor prey base as well as the nesting and hunting habitat of raptors within the conservation area.

Over 300,000 acres of native shrub communities have been lost in the past 30 years due, in large part, to repeated wildfires. Upland shrub and riparian communities constitute important habitat for small mammals that are the principal prey for the 25 raptor species that spend all or a portion of their year in the NCA. These communities also support a myriad of other

wildlife species. Shrub communities degraded by wildfire, soil erosion, and exotic plant invasion cannot support relatively stable small mammal populations that are found in less degraded communities. Anything that compromises the population dynamics of raptors and their prey is of special concern. Therefore, a prime consideration for wildlife management is to improve existing habitat conditions, especially for small mammal populations. Management actions for the fish and wildlife program are tied closely to the vegetation and riparian resource programs.

Description of Alternatives for Fish and Wildlife

Management Actions Common to All Alternatives

Raptors and Raptor Prey: The greatest benefit to raptors would be the stabilization of raptor prey populations, most notably the Piute ground squirrel. To stabilize and increase the



small mammal prey base, remnant upland native shrub habitat must be preserved, interconnected, and expanded. Degraded areas would be restored to shrub/bunchgrass habitat with a forb component and biological soil crust to provide additional habitat for small mammals, invertebrates, lizards, snakes, and birds.

Waterfowl: Riparian and wetland habitat improvement would provide additional food for waterfowl and migrant shorebirds, and would provide feeding and resting sites for many other bird species.

Upland Game: Pheasants, quail, doves, and partridge would have additional nesting and escape cover if shrub/bunchgrass habitat were improved adjacent to agricultural sites. Additional water sources would also expand the amount of usable range for upland birds. Nuttall's cottontails would find increased cover and food in improved riparian and upland areas.

Big Game: Although mule deer and pronghorn have historically used most of the NCA (at least seasonally), their range is currently limited by a lack of surface water. Additional surface water would make more of the NCA available to these species.

Non-Game: Improving and expanding existing riparian and woodland habitat would provide nest, perch, feed, and cover sites for many non-game birds, breeding areas for amphibians, and temporary food and cover for mammals, reptiles, amphibians and invertebrates. Additional cover and feeding areas would especially benefit migratory songbirds in the spring.

Special Status Species (SSS): See Special Status Animals Section 3.2.6.1

Alternatives A through D provide ways of achieving varying levels of the above-discussed habitat improvements. Although the following statements are not common to all management actions, they represent a range of

actions that would be incorporated across various alternatives to improve wildlife habitat.

- One to 40 miles of riparian habitat would be improved by planting native trees and 60shrubs which would provide raptor roosting and nesting areas.
- Wildlife watering sites would be developed
- From 20,000 to over 230,000 acres of upland shrub habitat would be improved.
- Livestock grazing would be managed to enhance perennial forage species, provide additional wildlife food and cover, and reduce competition with small mammal prey species.

Fish and Wildlife – Alternative A

The existing wildlife management program would continue with habitat improvement projects tied almost exclusively to emergency fire rehabilitation. Up to 10,000 acres of shrub habitat would be restored, with an additional 10,000 acres of grasslands that are considered to have a high wildfire risk (hazardous fuels) treated through a combination of biological, chemical, and mechanical fuels management projects.

Areas restored with perennial species would not be grazed by livestock until the plants are successfully established and can withstand grazing. In addition, areas restored with perennial vegetation would be grazed during the dormant season or grazed under a deferred rotation system to maintain the perennial species. Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would remain closed to livestock grazing.

Russian olive and tamarisk have dominated some riparian areas. Neither of these tree species supports the insects and other small prey used by migrant and resident birds during the spring and summer. By replacing these plants with native trees and shrubs, riparian habitat would again be utilized by native species. Up to one mile of riparian/wetland habitat would



be improved for raptor perching, roosting, and nesting, and songbird nesting, feeding and cover by replacing Russian olive and tamarisk with cottonwoods, willows, and other desirable trees.

When natural sites are not available, artificial nest structures are utilized by several raptor species (e.g., osprey, red-tailed, ferruginous, and Swainson's hawks, and western burrowing owls). An average of four (4) artificial nest structures would be installed annually for these species.

Up to nine water sites (guzzlers) would be constructed in the west and south portions of the NCA, north of the Snake River, to make habitat more accessible for big game and upland game species. Trees planted at these sites would also provide additional perching and nest sites across the desert.

Noxious weeds replace native plants, creating monocultures and destroying the diverse assemblage of native plants and the animals that depend on them. Approximately 600 acres would be treated annually for noxious weeds.

The current Canyon and Plateau shooting restrictions (61,200 acres) would be retained. Although the restrictions would limit human caused small mammal predation (Recreation Map 4), the closures are based on safety concerns. Use of firearms within these areas for animal damage control and law enforcement are exempt from the shooting closure.

Fish and Wildlife – Alternative B

Approximately 50,000 acres of upland shrub habitat would be restored. Habitat would be restored where it would most benefit small mammal raptor prey populations and where there would be the greatest likelihood of success, rather than being limited to currently burned areas. As such, the overall benefit to raptors and their prey would be enhanced. Up to 70,000 acres of additional degraded shrub habitat would be treated over the long-term through a combination of biological, chemical, and mechanical fuels management projects in

order to reduce the fire hazard to adjacent high-value areas.

Areas restored with perennial species would not be grazed by livestock until the plants are successfully established and can withstand grazing. In addition, areas restored with perennial vegetation would be grazed during the dormant season or grazed under a deferred rotation system to maintain the perennial species. Livestock grazing would be authorized so that it enhances, or at least does not adversely affect habitat supporting raptors and their prey populations. Stocking levels, and seasons and duration of use would be determined through the S&G process (Appendix 3), and would be based on resource objectives, such as fuels management and habitat restoration. Additional forage would be allocated for small mammal raptor prey species and big game. Forage competition between Piute ground squirrels and livestock would be minimized. Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment would remain closed to livestock grazing. In addition, livestock grazing would be eliminated or seasonally restricted on an additional 4,700 acres on Kuna Butte and along the Snake River downstream from Swan Falls Dam (Grazing Map 5).

Woodlands provide nesting habitat, cover, and feed for a number of birds and mammals. In particular, yellow-billed cuckoos, a U.S. Fish and Wildlife Service (USF&WS) Candidate species, need about 25 acres of good woodland habitat per breeding pair. To address this need, BLM would plant about 100 acres of woodland in blocks of about 25 acres over the long-term.

Approximately 20 miles of riparian/wetland habitat would be improved by removing unwanted exotic species like Russian olive and tamarisk and planting cottonwoods, willows, and other desirable trees and shrubs to provide roosting, perching, nesting and cover for raptors and other birds, mammals, and reptiles. In addition, habitat for migrant shorebirds would



be improved by constructing an additional 20-acre (approximate) pond at the TWMA.

To increase populations of nesting raptors as discussed in Alternative A, an average of five artificial nest structures would be installed each year.

As discussed in Alternative A, approximately nine guzzlers would be constructed in the southwestern portion of the NCA north of the Snake River to improve habitat accessibility for mule deer, pronghorn, and upland game birds.

An average of approximately 2,500 acres would be treated each year for noxious weeds by physical, chemical, or biological means.

The existing Canyon shooting restriction would be unchanged. The Plateau shooting restrictions would be expanded to include the northern portion of the OTA and the area north of Moore Road (Recreation Map 5). Although the expanded shooting restriction would limit small mammal mortality, the expansion is predicted on the increasing numbers of recreational shooters that are causing safety conflicts with military training activities in the portion of the OTA located north of the Impact Area. Use of firearms for animal damage control and law enforcement would be exempt from the shooting closure.

Fish and Wildlife – Alternative C

Alternative C would provide the most aggressive habitat protection and restoration actions. Up to 130,000 acres of degraded shrub habitat would be restored. As with Alternative B, the habitat would be restored where it would be most beneficial to raptor prey populations, rather than being limited to currently burned areas. As such, the overall benefit to raptors and their prey would be maximized. Additional shrub habitat could be realized by treating up to 100,000 acres of hazardous fuels in order to reduce the fire hazard to adjacent high-value areas over the long-term.

There would be no public land grazing administered by BLM except for fuels and weeds management purposes.

Up to 100 acres of woodland would be planted in 25-acre blocks over the long-term, as discussed in Alternative B.

Artificial nest structures would be built as described in Alternative A.

Up to 40 miles of riparian/wetland habitat would be improved by removing exotic species, such as Russian olive and tamarisk, and planting desirable trees, like cottonwoods and willows. In addition, habitat for migrant shorebirds would be improved by constructing a 20-acre (approximate) pond at the TWMA.

Up to 11 guzzlers would be constructed throughout the NCA, including the east end of the NCA and on the south side of the river. As discussed above, trees would be planted at the guzzler sites to provide additional nest sites for raptors and song birds.

Up to 4,000 acres would be treated annually for noxious weeds.

Shooting restrictions would be the same as described in Alternative B.

Fish and Wildlife – Alternative D – Proposed

Habitat restoration and hazardous fuels management would be conducted as described in Alternative C. Areas restored with perennial species would not be grazed by livestock until the plants are successfully established and can withstand grazing. In addition, where practicable, areas restored with perennial vegetation would be grazed during the dormant season or grazed under a deferred rotation system to maintain the perennial species. Livestock stocking levels and utilization would be determined through the S&G process (Appendix 3). Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would continue to be closed to livestock grazing, and Kuna Butte (3,400 acres) would



be grazed only intermittently for fuels and weeds reduction purposes (Grazing Map 6).

Up to 100 acres of woodland would be planted in 25-acre blocks over the long-term, as discussed in Alternative B.

Artificial nest structures would be built as described in Alternative A.

Improving up to 40 miles of riparian/wetland habitat would be the same as described in Alternative C, and constructing a 20-acre pond at in Alternative B.

Up to nine guzzlers would be constructed in the southwest portion of the NCA, north of the river. Trees would be planted at the guzzler sites to provide additional nest sites for raptors and song birds.

Up to 4,000 acres would be treated each year for noxious weeds.

Shooting restrictions would be the same as described in Alternative A.

Fish and Wildlife Table 3.1. Objectives and Management Actions by Alternative for Fish and Wildlife.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Emphasize maintenance and protection of raptor prey and other wildlife populations and habitats.	Emphasize protection and enhancement of raptor prey and other wildlife populations and habitats and expand areas useable by raptor prey and big game.		
Management Actions:			
Quality habitat for wildlife, particularly species dependent on riparian and wetland habitats, would be provided by restoring or maintaining plant species diversity and hydrologic functioning of springs, seeps, where possible or appropriate.			
Increase raptor populations by increasing raptor nesting, perching, feeding and roosting opportunities.			
All river, stream, and reservoir shorelines (approximately 101 miles) would be managed to maintain fisheries and aquatic-riparian habitat.			
Additional surface water would be provided to benefit big game, upland game, and non-game species.			
Habitat restoration projects would include shrub varieties that are suitable for raptor prey (small mammals) and big game where appropriate.			
Non-native trees providing little roosting or nesting habitat would be removed and would be replaced with native trees and shrubs.			
No woodland areas would be developed.	100 acres of woodland would be planted in blocks of 25 acres.		
Approximately 10,000 acres of degraded habitats would be restored.	Approximately 50,000 targeted acres of degraded small mammal and big game habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal and big game habitat would be restored.	



Fish and Wildlife Table 3.1. Objectives and Management Actions by Alternative for Fish and Wildlife.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
In addition to habitat restoration projects, 10,000 acres of annual grasslands would be converted to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 70,000 acres of annual grasslands would be converted to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 100,000 acres of annual grasslands would be converted to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects.	
In annual grass pastures, livestock grazing would leave sufficient residual litter for watershed protection.		There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A
Appropriate levels of Livestock grazing would be determined through the S&G process.		There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A.
Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would not be grazed (Grazing Map 4).	Same as Alternative A and grazing would be eliminated or seasonally restricted on an additional 4,700 acres (Grazing Map 5).	There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A and Kuna Butte (3,400 acres) would be grazed only intermittently for fuels reduction (Grazing Map 6).
Livestock grazing would be managed in accordance with S&Gs.	Livestock grazing in perennial pastures would be managed to minimize impacts to Piute ground squirrels	There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative B.
One mile of riparian habitat would be improved for wildlife by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	Up to 20 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	Up to 40 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	



Fish and Wildlife Table 3.1. Objectives and Management Actions by Alternative for Fish and Wildlife.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
No pond at the TWMA would be constructed.	Habitat for migrant shorebirds and nesting waterfowl would be improved by constructing a 20-acre (approximate) pond at the TWMA.		
Treat approx 600 acres for noxious weeds annually.	Treat approx 2,500 acres for noxious weeds annually.	Treat approximately 4,000 acres for noxious weeds annually.	
Current Plateau and Canyon recreational shooting restriction areas would be retained (Recreation Map 4).	The Canyon shooting restriction area would be retained, and the Plateau shooting restriction area would be enlarged to 99,400 acres (Recreation Map 5).		Same as Alternative A.

3.2.4 Geology

Geologic resources will not be affected by any of the RMP alternatives and as such no alternatives were developed. See Section 2.2.4 in the Affected Environment Chapter 2.

3.2.5 Paleontology

Paleontological resources will not be affected by any of the RMP alternatives and as such, no alternatives were developed. See Section 2.2.5 in the Affected Environment Chapter 2.

3.2.6 Special Status Species

3.2.6.1 Special Status Animals

Rationale

Idaho springsnail (Endangered), bald eagle (Threatened), and yellow-billed cuckoo (Candidate) are listed by the Federal government as species that need immediate attention (USF&WS 2002 p1). Management actions authorized or funded by BLM would be implemented in a manner that does not jeopardize the continued existence of these species or result in the destruction or modification of their critical habitat. Once a species is listed, it is the mission of BLM, through law enforcement, research, and land management, to enhance the species’ chance for recovery and survival. State sensitive species and species proposed for Federal listing (candidate species) would be given the same consideration as listed species.

BLM through consultation with the FWS has developed conservation measures to promote the protection and conservation of listed, proposed and candidate species. These conservation measures are included as Appendix 21 and are considered land use plan management actions specific to the protection of the above listed and candidate species. These measures will remain in effect for the protection of the above species unless or until they are amended or replaced through subsequent consultation.

The BLM and Idaho Fish and Game (IDF&G) agree to “Ensure, to the best of their abilities, that critical habitats and populations of sensitive species occurring on lands administrated by the BLM will be managed and/or conserved to minimize the need for listing these animals as threatened or endangered by either Federal or State governments in the future” (IDF&G and BLM Master MOU 2003 cover sheet).

BLM and IDF&G consider seven species “range wide/globally imperiled”; twenty-one species “regional and State imperiled”; and seventeen species are on the Idaho watch list (Appendix 5). All of these species are important; but in the NCA, there would be a special emphasis on the prairie falcon, which is a regional and State imperiled species. Restoration of upland shrub/bunchgrass habitat would help stabilize ground squirrel populations, which in



turn, would help to stabilize the prairie falcon population.

In 2006, the giant fairy shrimp (*Branchinecta raptor*) was identified as a new species, and was found in two locations in the NCA, one inside the OTA and one outside (but near its boundary).

Little is yet known about the species.

No data exists to suggest that the giant fairy shrimp or its habitat is in jeopardy. However, as needs are identified BLM will take measures to protect playas from user impacts. Once more is known about the giant fairy shrimp's population biology and ecological requirements, if warranted, BLM will implement specific management actions to protect the species from user impacts.

Standard Operating Procedures

- Recreation permits that adversely affect critical wildlife habitat would not be issued.

Management Common to All Alternatives

In order to protect the giant fairy shrimp, occupied habitat (Wildlife Map 2) would be managed with protection of the fairy shrimp as the highest priority. As the needs for the fairy shrimp are better understood management actions will be developed.

Increase raptor populations by increasing raptor nesting, perching, feeding and roosting opportunities.

All river, stream, and reservoir shorelines (approximately 101 miles) would be managed to maintain fisheries and aquatic-riparian habitat.

Habitat restoration projects would include shrub varieties that are suitable for raptor prey (Piute ground squirrels) where appropriate.

Non-native trees providing little roosting or nesting habitat would be removed and would be replaced with native trees and shrubs.

BLM would not permit livestock grazing that negatively affects the Idaho springsnail or its habitat.

Land exchanges would enhance or at least not adversely affect raptor populations or their habitat

Description of Alternatives for Special Status Animals

Alternatives A through D provide ways of achieving varying levels of habitat improvements. Planting fast growing trees along the Snake River would provide bald eagles more choices for perches and roosts. Upland and riparian areas would be improved and managed to reduce erosion and sedimentation effects on the Idaho springsnail.

Special Status Animals – Alternative A

The existing wildlife management program would continue with habitat improvement projects tied almost exclusively to emergency stabilization and rehabilitation (ESR). This alternative would restore 10,000 acres of shrub habitat, with an additional 10,000 acres of hazardous fuels treated in order to reduce highly flammable fuels.

Russian olive and tamarisk have dominated some riparian areas. Neither of these tree species supports the insects and other small prey used by migrant and resident birds including wintering bald eagles. By replacing these plants with native trees and shrubs, riparian habitat would again be utilized by native species. A total of one mile of riparian/wetland habitat would be improved for raptor perching, roosting, and nesting, and songbird nesting, feeding and cover by replacing Russian olive and tamarisk with cottonwoods, willows, and other desirable trees.

When natural sites are not available, artificial nest structures would be developed for sensitive species (e.g., osprey, ferruginous, and Swainson's hawks, and western burrowing owls). An average of four (4) artificial nest structures would be installed annually for these species.



Livestock grazing would be authorized only to the extent that it either enhances, or at least does not adversely affect habitat supporting raptors and their prey populations. Stocking levels, and seasons and duration of use would be determined through the S&G process (Appendix 3), and would be based on resource objectives, such as fuels management and habitat restoration. Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment would remain closed to livestock grazing.

The IDARNG would voluntarily avoid maneuver training activities in areas with more than 10% shrub canopy cover. Administrative assembly areas would be located as needed in non-shrub areas and frequently used sites would be graveled or cindered when authorized by BLM.

The current Canyon and Plateau shooting restrictions would be retained (Recreation Map 4). Use of firearms within these areas for animal damage control and law enforcement is exempt from the shooting closure.

Special Status Animals – Alternative B

Approximately 50,000 acres of upland shrub habitat would be restored. Habitat would be restored where it would most benefit small mammal raptor prey populations, rather than being limited to currently burned areas. As such, the overall benefit to raptors and their prey would be enhanced. Up to 70,000 acres of additional degraded shrub habitat would be treated over the long-term through a combination of biological, chemical, and mechanical fuels management projects.

Livestock grazing would be managed as identified in Alternative A. In addition, livestock grazing would be eliminated or seasonally restricted on 4,700 acres (Grazing Map 5).

Woodlands provide nesting habitat, cover, and feed for yellow-billed cuckoos. BLM would plant about 100 acres of woodland in blocks of about 25 acres over the long-term for this species.

In addition to riparian/wetland habitat improvements discussed in Alternative A, habitat for migrant shorebirds would be improved by constructing an additional 20-acre (approximate) pond at the TWMA.

To increase populations of nesting raptors as discussed in Alternative A, an average of five artificial nest structures would be installed each year.

The IDARNG would be authorized to conduct off-road vehicle maneuver training activities only in areas with less than 10% shrub canopy cover. In addition, to protect SSS habitat, off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres, and IDARNG would be provided an additional 20,400 acre maneuver training area (IDARNG Map 3). Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and as needed throughout the rest of the area in non-shrub sites. Frequently used sites would be graveled or cindered when authorized by BLM.

The existing Canyon shooting restriction would be unchanged. The Plateau shooting restriction would be expanded (99,400 acres) to include the northern portion of the OTA and the area north of Moore Road (Recreation Map 5). Although the expanded shooting restriction would limit small mammal mortality, the expansion is predicated on the increasing numbers of recreational shooters that are causing safety conflicts with military training, grazing, and recreational activities in the portion of the OTA Maneuver Area, located north of the Impact. Use of firearms within the area for animal damage control and law enforcement would be exempt from the shooting closure.

Special Status Animals – Alternative C

Alternative C would provide the most aggressive habitat protection and restoration actions, under which 130,000 acres of degraded shrub habitat would be restored. As with Alternative B, habitat would be restored where it would be most beneficial to raptor prey populations,



rather than being limited to currently burned areas. As such, the overall benefit to raptors and their prey would be maximized. Additional perennial habitat could be realized by treating up to 100,000 acres over the long-term through a combination of mechanical, chemical, and biological fuels reduction projects. There would be no public land grazing administered by BLM except for fuels and weeds management purposes.

Up to 100 acres of woodland would be planted in 25-acre blocks over the long-term, as discussed in Alternative B.

Artificial nest structures would be built as described in Alternative A.

Up to 40 miles of riparian/wetland habitat would be improved by removing exotic species, such as Russian olive and tamarisk, and planting desirable trees, like cottonwoods and willows. In addition, habitat for migrant shorebirds would be improved by constructing a 20-acre (approximate) pond at the TWMA.

In order to protect special status animal habitat, IDARNG would be authorized to conduct off-road vehicle maneuver training activities only in areas with less than 10% shrub canopy cover. Vehicle maneuver training would be restricted to designated roads on 18,400 acres as identified on IDARNG Map 4. The OTA boundary would be modified to remove approximately 3,900 acres of occupied slickspot peppergrass habitat from the OTA (IDARNG Map 4). Suitable and occupied slickspot peppergrass habitat would still exist in other Maneuver Areas of the OTA and IDARNG would continue to monitor and protect those areas. There would be no new training acreage provided.

Existing hardened administrative assembly and bivouac areas in the Bravo Area for IDARNG training would continue to be used. Other administrative assembly and bivouac areas would be located in areas outside the Bravo Area when needed and frequently used

sites would be graveled or cindered when authorized by BLM.

Shooting restrictions would be the same as described in Alternative B.

Special Status Animals – Alternative D – Proposed

Habitat restoration and fuels management would be managed as described in Alternative C.

Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would continue to be closed to livestock grazing and 3,400 acres would be classified as chiefly valuable for purposes other than grazing, including recreation, SSPs, and cultural resources. As such, the area would be grazed only intermittently for fuels and weeds reduction purposes on an as-needed basis (Grazing Map 6).

Up to 100 acres of woodland would be planted in 25-acre blocks over the long-term, as discussed in Alternative B.

Artificial nest structures would be built as described in Alternative A.

As described in Alternative C, up to two miles of riparian/wetland habitat would be improved annually and a 20-acre (approximate) pond would be constructed at the TWMA.

In order to protect SSS habitat, IDARNG off-road vehicle maneuver training in the 22,300 acre Bravo Area (IDARNG Map 1) would be the same as identified in Alternative B. An additional 4,100 acres identified on IDARNG Map 5 would be added to the OTA for maneuver training. In the remainder of the OTA, current types, seasons and locations of military training operations would continue. Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and as needed throughout the rest of the area in non-shrub sites. Frequently used sites would be graveled or cindered when authorized by BLM. In addition, maneuver train-



ing would be authorized only in areas with less than 10% shrub canopy cover.

Shooting restrictions would be the same as described in Alternative A.

Special Status Animals Table 3.1. Objectives and Management Actions by Alternative for Special Status Animals.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Emphasize maintenance, protection, and enhancement of raptors and other sensitive wildlife populations and habitats.			
Management Actions:			
Increase raptor populations by increasing raptor nesting, perching, feeding and roosting opportunities.			
All river, stream, and reservoir shorelines (approximately 101 miles) would be managed to maintain fisheries and aquatic-riparian habitat.			
Habitat restoration projects would include shrub varieties that are suitable for raptor prey (Piute ground squirrels) where appropriate.			
Non-native trees providing little roosting or nesting habitat would be removed and would be replaced with native trees and shrubs.			
BLM would not permit livestock grazing that negatively affects the Idaho springsnail or its habitat.			
Land exchanges would enhance or at least not adversely affect raptor populations or their habitat.			
Giant fairy shrimp habitat (Wildlife Map 2) would be managed with protection of the fairy shrimp as the priority. As more is learned about the fairy shrimp’s biological and ecological requirements, BLM will incorporate appropriate protection measures.			
Military training activities would avoid shrub stands with 10% or greater canopy cover.	Military training activities would avoid shrub stands with 10% or greater canopy cover.		
Approximately 10,000 acres of degraded habitats would be restored.	Approximately 50,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal habitat would be restored.	
In addition to habitat restoration projects, 10,000 acres of annual grasslands would be converted to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 70,000 acres of annual grasslands would be converted to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 100,000 acres of annual grasslands would be converted to a perennial plant community through a combination of biological, chemical, and mechanical fuels management projects.	



Special Status Animals Table 3.1. Objectives and Management Actions by Alternative for Special Status Animals.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
One mile of riparian habitat would be improved for wildlife by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	Up to 20 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	Up to 40 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	
No pond at the TWMA would be constructed.	Habitat for migrant shorebirds and nesting waterfowl would be improved by constructing a 20-acre (approximate) pond at the TWMA.		
Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would not be grazed (Grazing Map 4).	Same as Alternative A, and grazing would be eliminated or seasonally restricted on an additional 4,700 acres (Grazing Map 5).	There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A and Kuna Butte (3,400 acres) would be grazed only intermittently for fuels and weeds reduction (Grazing Map 6).
Current types, levels, seasons, locations, etc. of military maneuver training would continue (IDARNG Map 2).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres, and an additional 20,400 acre maneuver training area would be made available (IDARNG Map 3).	Off-road vehicle maneuver training would be restricted to designated routes in 18,400 acres and 3,900 acres would be removed from the OTA (IDARNG Map 4).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 4,100 acres would be made available for training (IDARNG Map 5).
Administrative assembly areas would be located as needed in non-shrub areas. Frequently used sites would be graveled or cindered when authorized by BLM.	Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and as needed throughout the rest of the area in non-shrub sites. Frequently used sites would be graveled or cindered when authorized by BLM.	Existing hardened administrative assembly and bivouac areas in the Bravo Area would continue to be used, and administrative assembly and bivouac areas would be located as needed in non-shrub areas outside of the Bravo Area. Frequently used sites would be graveled or cindered when authorized by BLM.	Same as Alternative B.



Special Status Animals Table 3.1. Objectives and Management Actions by Alternative for Special Status Animals.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Current Plateau and Canyon recreational shooting restriction areas would be retained (Recreation Map 4).	The Canyon shooting restriction area would be retained, and the Plateau shooting restriction area would be enlarged to 99,400 acres (Recreation Map 5).		Same as Alternative A.

3.2.6.2 Special Status Plants

Rationale

BLM Manual Section 6840 (SSS Management) provides overall policy direction to conserve listed, threatened, or endangered species on BLM administered land, and to ensure authorized actions do not contribute to the need to list Federal, candidate, State-listed, or BLM sensitive species. In addition, the management of Idaho rangelands is outlined in the Idaho S&Gs (Appendix 3). Standard 8 (Sensitive Species) represents the standards against which the NCA SSS are measured.

Standard Operating Procedures

- Federal actions shall not contribute to the need to federally list Candidate species or BLM Sensitive species. Populations and habitats of BLM sensitive plant species should be maintained, protected, and enhanced to prevent the listing of these species under the ESA.
- Inventories would be conducted prior to BLM authorized actions to determine the presence or absence of BLM Sensitive plants (Types 1-4).
- Heightened efforts would be taken to protect slickspot peppergrass through the implementation of conservation measures contained in the 2006 Conservation Agreement (CA).

Description of Alternatives for Special Status Plants (SSP)

Management Actions Common to All Alternatives

SSP species would generally receive the same emphasis and management in all alternatives. The goal is to maintain the areas where SSP species (Type 1-4) are currently found at a level sufficient to prevent these plants from requiring Federal listing. Management actions would focus on minimizing or eliminating the threats associated with wildland fire, competition from exotic species, grazing, and off-road vehicle activity. Wildland fire would be suppressed using AMR, which in most cases in slickspot peppergrass habitat, would consist of aggressive tactics to keep fires as small as possible and meet management goals stated in the CA. Known occurrences of SSP species would be avoided in ESR efforts. Restoration efforts that help maintain SSP habitats would be conducted. Nonnative invasive species within or adjacent to SSP sites would be treated to minimize competition with invasive species. Implementation of appropriate grazing management practices would be implemented in SSP habitats. Off highway vehicle (OHV) use would avoid SSP habitats when possible and routes would have an appropriate buffer to protect these habitats.

Slickspot peppergrass would receive special management consideration. The CA conservation measures would be implemented, with an emphasis on protecting known occurrences using aggressive fire prevention and suppression methods. Ninety percent of the wildfires occurring within slickspot peppergrass man-



agement areas (SSP Map 1) would be kept to 100 acres or less. The IDARNG would not train in occupied slickspot peppergrass habitat.

Special Status Plants – Alternative A

The IDARNG would continue to inventory and monitor SSP locations. The IDARNG would also minimize impacts in SSP areas resulting from training activities and/or restore habitat around SSP areas.

Fuel breaks would be maintained to aid wildfire suppression and protect SSPs.

Focus would be on maintaining SSPs and their habitat. Specific habitat improvement would occur through habitat restoration, fuels management projects, and weeds treatments in limited areas.

Special Status Plants – Alternative B

IDARNG would continue to inventory and monitor as described in Alternative A. In addition, off-road vehicle maneuver training would be restricted to designated routes in the 22,300 acre Bravo Area (IDARNG Map 1 and 3) to protect an extensive Wyoming big sagebrush community and occupied slickspot peppergrass habitat. An expanded maneuver training area of approximately 20,400 acres (IDARNG Map 3) would be authorized; however, this area has been impacted by repeated wildfires and has limited capability for future restoration projects.

Fuel breaks would be maintained and 8 miles of new fuel breaks would be constructed to aid wildfire suppression and protect SSPs.

A greater emphasis (50,000 acres restoration, 50,000 acres of weed treatments, and 70,000 acres fuels management) would be placed on protecting remnant shrub communities from wildfire and restoring annual grass habitats to perennial communities. Restoration and pro-

tection of areas near sensitive species would be a priority.

Special Status Plants – Alternative C

Vehicle maneuver training would be restricted to graveled roads on 18,400 acres as identified on IDARNG Map 4 with the Snake River Support Facility and existing hardened administrative assembly and bivouac areas still available for military training. The OTA boundary would be modified to remove approximately 3,900 acres of occupied slickspot peppergrass habitat from the OTA (IDARNG Map 4). Suitable and occupied slickspot peppergrass habitat would still exist in other Maneuver Areas of the OTA and IDARNG would continue to monitor and protect those areas.

Fuel breaks would be maintained and 12 miles of new fuel breaks would be constructed to aid wildfire suppression and protect SSPs.

The greatest emphasis would be placed on protecting remnant shrub communities and restoring or rehabilitating 230,000 acres of degraded shrub habitat.

Special Status Plants – Alternative D – Proposed

To protect an extensive Wyoming big sagebrush community and occupied slickspot peppergrass habitat off-road vehicle maneuver training in the Bravo training area would be the same as identified in Alternative B. An additional 4,100 acres identified on IDARNG Map 5 would be added to the OTA for maneuver training. In the remainder of the OTA, current types, seasons, and locations of military training operations would continue; however, the levels of military training would be adjusted to compensate for increased maneuver restrictions. The IDARNG would avoid maneuver training activities in areas with shrub stands with 10% or greater canopy cover.



Special Status Plants Table 3.1. Objectives and Management Actions by Alternative for Special Status Plants.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objective:			
The distribution, abundance, and vigor of SSPs would be maintained or improved.			
Management Actions:			
Management actions would be implemented as outlined in the slickspot peppergrass CA by: (1) protection of known slickspot peppergrass would be a priority over the surrounding management area; (2) BLM would evaluate, create, and maintain fuel breaks around areas where frequent fires threaten occupied and suitable slickspot peppergrass habitats; and (3) aggressive fire suppression tactics would be used when occupied slickspot peppergrass habitats are threatened.			
Ninety percent of the wildfires occurring within slickspot peppergrass management areas (Fire Map 1) would be kept to 100 acres or less. Ninety percent of the wildfires in the rest of the NCA would be kept to 200 acres or less.			
The IDARNG would protect slickspot peppergrass and other sensitive plant habitat by excluding training activities, enhancing fire prevention programs, and by emphasizing non-soil disturbing fire suppression techniques in and around identified areas.			
Where actions of permit holders (non-grazing) result in ground disturbance or resource damage in SSP habitat, the permit holder would be responsible for restoring the affected area in conformance with applicable conservation measures from the slickspot peppergrass CA (Appendix 12).			
Recreation permits would not be issued in occupied sensitive plant habitat.			
Activities to prevent the introduction of new and reduction of existing non-native species would continue with priority management in areas adjacent to occupied SSP sites.			
Surface disturbing activities would be located $\geq 1/2$ mile away from occupied sensitive plant habitat.			
Prescribed buffers around known occurrences of SSP species would be a criterion in the route designation process.			
Land exchanges would enhance or at least not adversely affect raptor populations or their habitat, and public lands containing sensitive plant habitat would be retained unless they can be exchanged for lands containing better habitat and/or more important resource values.			
Treat approximately 600 acres for noxious weeds annually.	Treat approximately 2,500 acres for noxious weeds annually.	Treat approximately 4,000 acres for noxious weeds annually.	
Military training activities would avoid shrub stands with 10% or greater canopy cover.	Military training activities would avoid shrub stands with 10% or greater canopy cover.		
Current types, levels, seasons, locations, etc. of military maneuver training would continue (IDARNG Map 2).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres, and an additional 20,400 acre maneuver training area would be made available (IDARNG Map 3).	Off-road vehicle maneuver training would be restricted to designated routes in 18,400 acres and 3,900 acres would be removed from the OTA (IDARNG Map 4).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 4,100 acres would be made available for training. (IDARNG Map 5).



Special Status Plants Table 3.1. Objectives and Management Actions by Alternative for Special Status Plants.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
136 miles of existing fuel breaks would be maintained or improved.	Maintain existing fuel breaks and construct 8 miles of new fuel breaks (Vegetation Map 7).	Maintain existing fuel breaks and construct approximately 12 miles of new fuel breaks (Vegetation Map 7).	
Approximately 10,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 50,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal habitat would be restored.	
In addition to habitat restoration projects, approximately 10,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 70,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 100,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	

3.2.7 Soil Resources

Rationale

The BLM is required to comply with the Federal Land Policy & Management Act (FLPMA), the Clean Water Act (CWA), Idaho S&Gs (Appendix 3), and other related Federal and State laws and regulations regarding watershed health, soil stability, and water quality. Improving and maintaining healthy and properly functioning watersheds benefit wildlife, fisheries, water quality, recreation, and livestock grazing.

Standard Operating Procedures

- Adapted perennial grasses, forbs, and shrubs would be seeded when possible to (1) stabilize the soil, (2) prevent weed invasion, (3) restore wildlife habitat, and (4) reduce the likelihood of future fires.
- Grazing management actions would provide for adequate amounts of vegetative ground cover and litter (determined on an ecological site basis) to support infiltration and soil stability, to protect resources, and to maintain site productivity.

- Where livestock grazing is permitted it would be managed through the S&G process (Appendix 3).

Description of Alternatives for Soil Resources

Soil Resources – Alternative A

Watersheds and soils would continue to be managed for improved productivity, health and function.

Grazing management actions, consistent with current regulations and policies, would be implemented to maintain or make significant progress toward meeting the S&Gs (Appendix 3). Where these standards are not being met and current livestock management is found to be a significant factor, changes in management would be implemented through allotment specific grazing decisions in order to make significant progress toward meeting the standard. Livestock grazing would be managed to provide periodic rest and/or deferment during critical growth stages to meet the phenological needs of key plant species. Grazing and other land management actions would also be man-



aged to provide for adequate amounts of vegetative ground cover and litter (determined on an ecological site basis) to support infiltration, soil stability, and to maintain site productivity.

Mechanical impacts to soil surfaces and biological crusts would be minimized through proper timing with regard to soil type, soil moisture content and type and duration of use. Undue erosion from surface disturbing activities would be prevented or minimized by applying appropriate SOPs in conjunction with site specific monitoring.

Soil Resources – Alternative B

Watersheds and soils would continue to be managed for improved productivity, health and function. Improvements would result from better management controls (i.e., implementation of grazing systems, route designation); vegetative habitat restoration (seeding of desirable grasses, forbs, and shrubs); and vegetative control measures (use of herbicides, and other methods to control undesirable species).

Undue erosion from surface disturbing activities would be prevented or minimized by applying appropriate Best Management Practices (BMP) and/or SOPs in conjunction with site specific monitoring. Mechanical impacts to the soil surface and biological soil crusts would be minimized through proper timing and duration for the type of use with regard to soil type, soil moisture content, and biological soil crust vulnerability.

Areas being actively eroded would be documented, prioritized, and stabilization procedures would be implemented. These procedures may range from changes in management (i.e., grazing, recreation) to allow for natural stabilization, or more active measures, such as seeding, physical structures, and mechanical alterations.

Soil Resources – Alternative C

Watersheds and soils would be managed as described in Alternative B.

There would be no public land grazing except for fuels and weeds management purposes.

Undue erosion from surface-disturbing activities would be the same as identified in Alternative B.

Stabilization procedures for actively eroding areas would be the same as described in Alternative B.

Soil Resources – Alternative D - Proposed

Watersheds and soils would be managed as described in Alternative B.

Habitat restoration activities would be the same as that described for Alternative C.

Undue erosion from surface disturbing activities would be the same in Alternatives B, C and D.



Soil Table 3.1. Objectives and Management Actions by Alternative for Soil Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Watersheds would have stable vegetative communities that provide for proper hydrologic function, nutrient cycling, energy flow, and soil stability.			
Soil productivity would be maintained and enhanced. Accelerated soil erosion caused by human activities would be minimal.			
Minimize the potential for future localized soil erosion processes on all soils with a moderate to very high soil erosion potential (Soil Map 1).	Stabilize the current and minimize the potential for future localized soil erosion processes on all soils with a moderate to very high soil erosion potential (Soil Map 1).		Same as Alternative A.
Management Actions:			
Mechanical impacts to the soil surface would be minimized through proper timing and duration for the type of use authorized with regard to soil type and soil moisture content and biological crust vulnerability.			
Allocation of AUMs would be determined through the S&G process		There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A.
The existing 43,000-acre avoidance area in Owyhee County (Lands Map 3) would continue to be managed as such.	To provide additional resource protection along the Snake River Canyon, the existing avoidance area would be enlarged to 105,000 acres (Lands Map 4).	A 159,000-acre avoidance area would extend from Guffey Bridge to Hammett to protect the scenic values of the Snake River Canyon and the nearby Oregon Trail (Lands Map 5).	Same as Alternative A.
Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 2) Open – 0 acres Limited – 431,200 acres (limited to designated routes) Closed – 1,600 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 3) Open – 0 acres Limited – 426,400 acres (limited to designated routes) Closed – 6,400 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 4) Open – 0 acres Limited – 419,600 acres (limited to designated routes) Closed – 13,200 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 5) Open – 0 acres Limited – 428,400 acres (limited to designated routes) Closed – 4,400 acres



3.2.8 Upland Vegetation

Rationale

Public Law 103-64 established the NCA to “...provide for the conservation, protection, and enhancement of raptor populations and habitats and the natural and environmental resources and values associated therewith...” Section 2(4) of the NCA-enabling legislation defines “raptor habitat” as including the habitat of the raptor prey base as well as the nesting and hunting habitat of raptors within the conservation area.

The management of Idaho rangelands is outlined in BLM S&Gs (Appendix 3). Standard 4 (Native Plant Communities), Standard 5 (Seedings), Standard 6 (Exotic Plant Communities Other than Seedings), and Standard 8 (Sensitive Species) represent the standards against which the NCA rangelands are measured.

Standard Operating Procedures

- All wildfires would be evaluated for possible ESR. Objectives would include the establishment of shrub and perennial herbaceous species to minimize soil erosion and invasion by annual plant species, and to maintain and improve raptor prey habitat.

Description of Alternatives for Vegetation Resources

Assumptions

- 50% of ESR efforts would be successful, 25% would be partially successful and 25% would fail (if these are in priority areas they would be addressed through habitat restoration efforts).
- The objectives for ESR may not be the same as for restoration.
- Restoration efforts would eventually achieve the desired perennial plant community.

Management Actions Common to All Alternatives

The alternatives for upland vegetation were developed with the intent of implementing

S&Gs (Appendix 3), and represent a range of management actions designed to restore severely degraded habitat to a condition more in line with the standards for rangeland health.

Overall – The priorities for vegetation management are to:

- maintain remnant native shrub and perennial grass cover;
- expand shrub communities; and
- protect watershed health.

IDARNG – Maneuver training and other soil disturbing activities would occur primarily in non-shrub areas.

Lands and Realty – Avoidance areas proposed in the different alternatives either carry forward areas that were designated in the Owyhee RMP to protect a variety of resources (Alternatives A and D), or are proposed to primarily protect visual resources along the Snake River.

Transportation – Route designation would allow continued public access; however, protection of native vegetation and soils resources and reducing fragmentation would be critical factors in determining which routes would be designated as open and the location of these routes. Relatively small areas, ranging from 1,600 (Alternative A) to 13,200 acres (Alternative C), would be closed to motorized vehicles

Vegetation – Fuels Management – Prescribed fire, biological, chemical or mechanical fuels management treatments would be emphasized in priority areas depending on funding or perceived hazards. Priorities may include the Wildland Urban Interface (WUI) and protection of existing resources, including wildlife habitat and SSP populations.

ESR efforts would be conducted on burned areas as needed. These efforts would continue for up to three years after an area burns. The goals for ESR would include stabilizing soils, controlling invasive and noxious weeds, and



returning vegetation to pre-fire conditions or better. In those instances where desired vegetation would reestablish naturally without re-seeding, fuels management efforts would be limited to excluding competing uses until reestablishment is complete.

Vegetation – Noxious Weeds Management – To keep noxious weeds from becoming widespread in the NCA, it is important to aggressively limit their expansion and eliminate new outbreaks. In order to reduce invasion of noxious and other weeds, individuals/organizations (non-grazing), that are being issued new, renewed, or amended land use authorizations (rights-of-way (ROW), permits, leases, etc.) would be required to reseed the affected area with a perennial vegetative cover following completion of ground disturbing activities. Permit holders in suitable and/or occupied slickspot peppergrass habitat would be required to conform to applicable conservation measures from the slickspot peppergrass CA (Appendix 12).

Vegetation – Research Areas – Research areas would be set aside to develop new approaches to habitat restoration.

Vegetation – Restoration – Efforts would be made to restore native and/or desirable non-native vegetation in degraded habitats (i.e., exotic plant or seeded communities) in an effort to help create mosaics of native vegetation that are resistant and resilient to disturbance. Given funding limitations and variables such as weather, restoration efforts would be prioritized using a variety of criteria including proximity to existing shrub communities, proximity to sensitive species habitat, proximity to the priority raptor nesting sites, proximity to major roads, proximity to fences, soils and ecological types, and precipitation zone. Management Area 1 would have the highest probability for success. Because of ongoing ground disturbance associated with live firing and off-road maneuver training activities, the BLM would not conduct restoration activities in the OTA; however, the IDARNG would continue their rehabilitation efforts in the OTA, primar-

ily in remnant shrub communities outside the Impact Area.

Vegetation – Wildland Fire Ecology and Management – After the protection of life and property, emphasis for fire suppression efforts would be on minimizing fire sizes in slickspot peppergrass habitat and remnant shrub communities. These priorities would help protect scarce resources that are difficult or impossible to restore. In alternatives B, C, and D, campfires would be restricted to designated areas.

Upland Vegetation – Alternative A

Overall – The focus would be on maintaining the cover and productivity of existing native plant communities. Landscape level habitat improvement would occur predominantly through changes in livestock grazing practices and restrictions in OHV activity. Site-specific habitat improvements would occur through habitat restoration and fuels management projects. While wildfire suppression would be a priority, because relatively limited actions would be taken to change fire regime condition classes, the rate of habitat loss is expected to exceed the rate of habitat improvement and about 50,000 additional acres of remnant shrub habitat would be lost to wildfires.

IDARNG – Current types, levels, seasons, locations, etc. of military maneuver training would continue. The IDARNG would voluntarily avoid maneuver training activities in areas with 10% or greater shrub canopy cover. Administrative assembly areas would be located as needed in non-shrub areas and when authorized by BLM, frequently used sites would be graveled or cindered.

Livestock Grazing – Relatively few areas would be closed to livestock grazing (approximately 3,900 acres). Idaho S&Gs (Appendix 3) would be implemented on the remaining areas to address unsatisfactory vegetative conditions related to current livestock grazing practices. In annual dominated areas, sufficient residual litter would remain after grazing to provide watershed protection.



Vegetation – Fuels Management – Approximately 10,000 acres would be treated with the specific objective of reducing hazardous fuels. Fuels treatments would be limited to isolated areas primarily within the wildland urban interface (WUI), areas adjacent to restoration efforts, and fence lines. In addition, about 136 miles of existing fuel breaks would be maintained or improved to aid wildfire suppression efforts and protect slickspot peppergrass habitat.

Vegetation – Restoration – Approximately 10,000 acres would be restored over the next 20+ years. These efforts would be restricted to those sites having the highest probability of success (Wyoming big sagebrush areas), not necessarily those that would have the greatest benefit to raptor populations. Restoration efforts would primarily occur in proximity to existing shrub communities in Management Areas 1 and 2 with the goal of expanding those communities and protecting them from wildfire by improving the fire regime condition class in restored areas.

Vegetation – Research Areas – No areas would be set aside for scientific investigation.

Vegetation – Noxious Weeds Management – Up to 600 acres would be treated annually for noxious weeds, with an emphasis on SSP habitat and restored areas.

Recreation – Campfires – Emergency closures on campfires would be implemented as fuels and climatic conditions warrant.

Visual Resources – The more restrictive VRM classifications (classes I and II) would be associated with the Snake River Canyon, buffers adjacent to the canyon, and portions of the Oregon Trail. The remaining 93% of the NCA would have the less restrictive Class III or IV ratings.

Upland Vegetation – Alternative B

Overall – A greater emphasis would be placed on protecting remnant shrub communities from wildfire. It is expected that 120,000 acres

of habitat would be treated through a combination of restoration and fuels management projects. It is anticipated that 30,000 acres of remnant shrub communities would be lost to wildfire.

IDARNG – The IDARNG would restrict off-road maneuver training activities to areas with less than 10% shrub canopy cover. In addition, off-road vehicle maneuver training would be restricted to designated routes on 22,300 acres of the Bravo Area where large stands of remnant shrubs exist (IDARNG Map 3). An expanded maneuver training area of approximately 20,400 acres would be authorized. Although much of this proposed area has burned between 1980 and 2004, maneuver training would avoid remnant shrub communities (approximately 23% of the area). Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and as needed throughout the rest of the area in non-shrub sites. When authorized by BLM, frequently used sites would be graveled or cindered.

Livestock Grazing – Grazing management would be as described in Alternative A; however, Sandberg bluegrass dominated areas would receive additional management attention in order to reduce, where needed, livestock impacts to Piute ground squirrels.

Vegetation – Fuels Management – Approximately 70,000 additional acres of highly flammable hazardous fuels would be treated through a combination of biological, chemical, or mechanical fuels management projects. Existing fuel breaks would be maintained or improved, and about 8 miles of new fuel breaks would be constructed to aid fire suppression and protect habitat restoration projects.

Vegetation – Noxious Weeds Management – Up to 2,500 acres would be treated for noxious weeds annually. Restored areas and SSP habitat would have priority for treatment.

Vegetation – Research Areas – Up to 1,000 acres would be set aside from most human



activities for research related to improving techniques for habitat restoration in arid upland sites.

Vegetation – Restoration – Restore 50,000 acres of degraded small mammal habitat in targeted areas deemed most beneficial to raptor populations. All high priority areas outside the OTA and other areas, primarily in Management Areas 1 and 2, would be treated. Where unplanned events such as wildfires occur, restoration projects may be used to supplement ESR efforts that are either unsuccessful or require long-term restoration to attain or maintain the desired perennial plant community.

Visual Resources – The entire NCA would have the less restrictive Class III or IV ratings.

Upland Vegetation – Alternative C

Overall – The greatest emphasis would be placed on protecting remnant shrub communities from wildfire, treating 230,000 acres of degraded habitat, and reducing impacts from resource uses such as livestock grazing. This alternative would allow the treatment (restoration, fuels) of essentially all acres outside of the OTA currently identified as non-shrub habitat. However, over the long-term, it is anticipated that an additional 15,000 acres of remnant shrub communities would be lost to wildfire.

IDARNG – The IDARNG would restrict off-road maneuver training activities to areas with less than 10% shrub canopy cover. Vehicle maneuver training would be restricted to graveled roads on 18,400 acres (IDARNG Map 4). Existing hardened administrative assembly and bivouac sites in the Bravo Area would continue to be used. Other administrative assembly and bivouac areas would be located in areas outside the Bravo Area when needed, and frequently used sites would be graveled or cindered when authorized by BLM. The OTA boundary would be modified to remove approximately 3,900 acres of occupied slickspot peppergrass habitat from the OTA. Suitable and occupied slickspot peppergrass habitat

would still exist in other Maneuver Areas of the OTA and IDARNG would continue to monitor and protect these areas. No new training acreage would be provided.

Livestock Grazing – Livestock would be used to help reduce fuels and weeds in limited areas and on an as-needed basis, primarily in the WUI, and the remainder of the NCA would be closed to grazing.

Vegetation – Fuels Management – Approximately 100,000 acres would be treated. Areas adjacent to remnant shrub stands, restoration projects, and areas that are susceptible to human-caused fires would have the highest priority. Existing fuel breaks would be maintained or improved, and about 12 miles of new fuel breaks would be constructed to aid wildfire suppression in and around habitat restoration projects and slickspot peppergrass habitat.

Vegetation – Noxious Weeds Management – Approximately 4,000 acres would be treated for noxious weed infestations annually. Priorities for treatment would be the same as Alternative B.

Vegetation – Research Areas – Up to 5,000 acres would be set aside from most human activities for research purposes.

Vegetation – Restoration – Approximately 130,000 acres of degraded small mammal habitat would be restored in areas deemed most beneficial to raptor populations. Where unplanned events such as wildfires occur, restoration projects may be used to supplement ESR efforts that are either unsuccessful or require long-term restoration to attain or maintain the desired perennial plant community.

Visual Resources – A more restrictive VRM classification (Class II) would be associated with the Snake River Canyon, buffers adjacent to the canyon, the Oregon Trail, and the majority of Management Area 1 outside the OTA. The remaining 61% of the NCA would have the less restrictive Class III or IV ratings.



Upland Vegetation – Alternative D – Proposed

Overall – An emphasis would be placed on protecting remnant shrub communities from wildfire with the same level of vegetative treatments as identified in Alternative C. However, over the long-term, because of the increased recreation and other uses, it is anticipated that 30,000 acres of remnant shrub communities would be lost to wildfire.

IDARNG – The IDARNG would restrict off-road maneuver training activities to areas with less than 10% shrub canopy cover. To protect an extensive Wyoming big sagebrush community and occupied slickspot peppergrass habitat, vehicle maneuver training in the Bravo Area would be the same as identified in Alternative B. An additional 4,100 acres dominated by exotic annual communities (IDARNG Map 5) would be added to the OTA for maneuver training. In the remainder of the OTA, current types, seasons and locations of military training operations would continue; however, the levels of military training would be adjusted to compensate for increased maneuver restrictions. Administrative assembly and bivouac areas would be located in existing hardened sites adjacent to designated roads in the Bravo

Area and as needed throughout the rest of the area in non-shrub sites. When authorized by BLM, frequently used sites would be graveled or cindered.

Livestock Grazing – Livestock grazing would be as described in Alternative B.

Vegetation – Fuels Management – Fuels management efforts would be as described in Alternative C.

Vegetation – Noxious Weeds Management – Treatment of noxious weeds would be as described in Alternative C.

Vegetation – Research Areas – Research set-aside areas would be as described in Alternative C.

Vegetation – Restoration – Restoration efforts would be as described in Alternative C.

Visual Resources – A more restrictive VRM classification (Class II) would be associated with the Oregon Trail, occurring primarily in Management Area 2. The remaining 89% of the NCA would have the less restrictive Class III or IV ratings.

Upland Vegetation Table 3.1. Objectives and Management Actions by Alternative for Upland Vegetation Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Limit further loss of existing native shrub habitat to no more than 50,000 acres and restore degraded habitat as opportunities allow.	Limit further loss of existing native shrub habitat to no more than 30,000 acres and increase the acres of restored shrub habitat.	Limit further loss of existing native shrub habitat to no more than 15,000 acres and maximize the acres of restored shrub habitat.	Same as Alternative B.
Minimize human impacts to SSS.	SSP and animal habitat would be in good ecological condition where potential allows and human uses would be compatible.		
Management Actions:			
Where actions of permit holders (non-grazing) result in ground disturbance or resource damage in slickspot peppergrass habitat, the permit holder would be responsible for restoring the affected area in conformance with applicable conservation measures from the slickspot peppergrass CA (Appendix 12).			
Nonnative invasive species within or adjacent to SSP sites would be treated.			



Upland Vegetation Table 3.1. Objectives and Management Actions by Alternative for Upland Vegetation Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Surface disturbing activities and/or human developments would be located $\geq \frac{1}{2}$ mile away from occupied sensitive plant habitat.			
Recreation permits would not be issued in occupied sensitive plant habitat.			
Prescribed buffers around known occurrences of SSP species would be a criterion in the route designation process.			
To protect slickspot peppergrass and its habitat from wildfires, BLM would implement the following actions consistent with the slickspot peppergrass CA: (1) protection of known slickspot peppergrass habitats would be a priority over the surrounding management area, (2) BLM would evaluate, create, and maintain fuel breaks around areas where frequent fires threaten occupied and suitable slickspot peppergrass habitats, and (3) aggressive fire suppression tactics would be used when occupied slickspot peppergrass habitats are threatened.			
Approximately 10,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 50,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal habitat would be restored.	
In addition to habitat restoration projects, approximately 10,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 70,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 100,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	
Allocation of animal unit months (AUM) would be determined through the S&G process		There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A.
Livestock grazing in annual vegetation would be managed to leave sufficient residual litter for watershed protection.		There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A.



Upland Vegetation Table 3.1. Objectives and Management Actions by Alternative for Upland Vegetation Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Vehicle access would be managed according to the following OHV Area Designations: (Transportation Map 2) Open – 0 acres Limited – 431,200 acres (limited to designated routes) Closed – 1,600 acres.	Vehicle access would be managed according to the following OHV Area Designations: (Transportation Map 3) Open – 0 acres Limited – 426,400 acres (limited to designated routes) Closed – 6,400 acres.	Vehicle access would be managed according to the following OHV Area Designations: (Transportation Map 4) Open – 0 acres Limited – 419,600 acres (limited to designated routes) Closed – 13,200 acres.	Vehicle access would be managed according to the following OHV Area Designations: (Transportation Map 5) Open – 0 acres Limited – 428,400 acres (limited to designated routes) Closed – 4,400 acres.
No areas would be set aside for scientific investigation.	Up to 1,000 acres would be set aside from most human activities for research purposes.	Up to 5,000 acres would be set aside from most human activities for research purposes.	
Maintain 136 miles of existing fuel breaks (Vegetation Map 7).	Maintain existing fuel breaks and construct approximately 8 miles of new fuel breaks (Vegetation Map 7).	Maintain existing fuel breaks and construct approximately 12 miles of new fuels breaks (Vegetation Map 7).	
Current types, levels, seasons, locations, etc. of military maneuver training would continue (IDARNG Map 2).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 20,400 acre maneuver training area would be made available (IDARNG Map 3).	Off-road vehicle maneuver training would be restricted to designated routes in 18,400 acres and 3,900 acres would be removed from the OTA (IDARNG Map 4).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 4,100 acres would be made available for training (IDARNG Map 5).
Military training activities would avoid shrub stands with 10% or greater canopy cover.	Military training activities would avoid shrub stands with 10% or greater canopy cover.		
Treat up to 600 acres for noxious weeds annually.	Treat up to 2,500 acres for noxious weeds annually.	Treat up to 4,000 acres for noxious weeds annually.	
No restrictions on campfires except for emergency fire closure.	Campfires would be restricted to improved campsites.		



3.2.9 Water Quality, Riparian and Wetlands

Rationale

Water quality is important for human uses and proper ecosystem functioning. Management practices, such as grazing, mineral material extraction, recreation, and vegetation management should be designed to maintain healthy sustainable and functioning ecosystems, as described in the Idaho S&Gs (Appendix 3).

The Clean Water Act of 1977, as amended, requires the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters. Under the Act, State-developed Total Maximum Daily Loads (TMDL) and State-approved water quality management plans are required for water bodies containing water quality limited segments. Sinker Creek and Rabbit Creek were the only streams that were originally identified in the Sub-basin assessment as 303(d) listed streams. Sinker Creek was listed for temperature, sediment, and flow alteration, and Rabbit Creek was listed only for sediment. However, the approved TMDL established standards for temperature, but de-listed standards for sediment and flow alteration. Therefore, Rabbit Creek was de-listed, and Sinker Creek is now only listed for temperature.

Standard Operating Procedures

- BLM continuing management mandate would be to authorize only those uses and activities that further compliance with State water quality standards. Uses and activities would be emphasized that address water resource objectives, such as reduction of erosion and sedimentation. Uses and activities would be managed to meet water quality standards on water quality limited stream segments.
- Implementation of water resource objectives and maintenance or improvement of existing water quality would continue. Public lands adjacent to stream segments that are not meeting State water quality standards and/or Proper Functioning Condition (PFC) would be managed to pro-

duce an upward trend in the structure and composition of key riparian/wetland vegetation, as well as the desired physical characteristics of the stream channel.

- Aggressive weed suppression activities would continue at the TWMA. Other riparian areas infested with noxious weeds would also be treated as weeds are identified. Use of biological controls, such as golden loosestrife beetle, would be emphasized wherever feasible.
- To comply with State water quality standards, BLM would take the following actions to address Sinker Creek, the only Section 303(d) listed stream segment in the NCA:
 - o Assess the effect of management actions on the Section 303(d) listed temperature regime of Sinker Creek, or for water quality parameters which may be identified in the future for other water bodies. This would be done at the site-specific scale during evaluations of Groundwater Management Areas. BLM would document where sufficient measures have been implemented to bring listed segments into compliance with water quality standards within a two-year period, as required by current EPA standards.
 - o For water bodies that remain on the 303(d) list and are affected by BLM management activities, BLM would develop or adjust management actions necessary to restore water quality and meet Idaho water quality standards. BLM would work with State agencies and local Tribes to set priorities and timelines for addressing listed water bodies. BLM would also develop Water Quality Restoration Plans to address the water quality parameter at issue.

Description of Alternatives for Water Quality, Riparian and Wetlands

Management Actions Common to All Alternatives

- BLM would not permit grazing that adversely affects the Idaho springsnail or its



habitat on BLM-managed lands along the Snake River and C.J. Strike Reservoir.

- Grazing practices would be implemented that provide sufficient residual vegetation to improve, restore, and/or maintain hydrologic functioning, and to provide plant species diversity and structure for quality habitat.
- Prescribed fire would be introduced to the wetland; up to 20 acres of decadent wetland vegetation would be burned each year for five years. Fire would be selectively used thereafter on an as-needed site-specific basis.

Water Quality, Riparian and Wetlands – Alternative A

Because BLM is required to meet State and Federal water quality standards in all its activities, there would be no difference between alternatives in the way water quality issues are managed. Riparian and wetland areas, including springs and seeps, would be managed to either maintain or improve their proper functioning condition, including the restoration or maintenance of plant species diversity and hydrologic functioning. In addition, noxious and invasive weeds would be reduced through a combination of biological, physical, chemical, and prescribed fire treatments, with biological measures being the preferred method, if feasible.

In addition to meeting the minimum requirements of laws, regulations, and policy mandates that apply to livestock grazing on public lands, additional proactive grazing management actions would be implemented consistent with the intent of the NCA enabling legislation. The Idaho S&Gs (Appendix 3) would continue to be the standard by which progress is evaluated.

Approximately 3,900 acres including Priest Ranch, located downstream from Swan Falls Dam, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment would continue to be closed to livestock grazing to protect wildlife habitat, reduce impacts to Snake River

snail species, and protect cultural and recreational values (Grazing Map 4).

One mile of riparian habitat would be improved for wildlife by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.

Water Quality, Riparian and Wetlands – Alternative B

Up to 20 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.

Habitat for migrant shorebirds and nesting waterfowl would be improved by constructing a 20-acre (approximate) pond at the TWMA.

Stocking levels, seasons and duration of use would be determined through the S&G process (Appendix 3), as well as other NCA resource objectives, such as fuels management and habitat restoration. Stocking levels in annual grass pastures and/or allotments would be based on available forage. Perennial pastures, as well as areas having been treated under restoration or rehabilitation projects would be rested from livestock grazing until they achieve the desired resource objective.

Water Quality, Riparian and Wetlands – Alternatives C

Up to 40 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.

As in Alternative B, habitat for migrant shorebirds and nesting waterfowl would be improved by constructing a 20-acre (approximate) pond at the TWMA.

There would be no public land grazing except for fuels and weeds management purposes.



Water Quality, Riparian and Wetlands – Alternative D – Proposed

Up to 40 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.

As in Alternative B, habitat for migrant shorebirds and nesting waterfowl would be improved by constructing a 20-acre (approximate) pond at the TWMA.

Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would remain closed to livestock grazing, and Kuna Butte (3,400 acres) would be classified as chiefly valuable for purposes other than grazing, including recreation, special status plants, and cultural resources, and would be grazed only intermittently for fuels and weeds reduction purposes (Grazing Map 6). Carrying capacity and utilization would be determined through the S&G process (Appendix 3).

Water Quality, Riparian and Wetlands Table 3.1. Objectives and Management Actions by Alternative for Water Quality, Riparian, and Wetlands.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Maintain or improve the current functioning condition of riparian areas along 101 miles of reservoir, river, or stream shoreline.			
Management Actions:			
Up to 20 acres of decadent wetland vegetation at TWMA would be treated with prescribed fire each year for five years to maintain plant vigor, nutrient cycling, and wildlife habitat value.			
All river, stream, and reservoir shorelines (approximately 101 miles) would be managed to maintain fisheries and aquatic-riparian habitat.			
Eighty (80) acres of the TWMA wetlands would be restored within five (5) years to achieve good ecological condition.			
Biological weed control measures would be initiated whenever feasible. When biological methods are not feasible, BLM would use approved herbicides, tillage, and prescribed fire as appropriate.			
Allocation of AUMs would be determined through the S&G process		There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A.
One mile of riparian habitat would be improved for wildlife by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	Up to 20 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	Up to 40 miles of riparian and wetland wildlife habitat would be improved by removing unwanted exotic trees and shrubs and planting cottonwood, willow, and other desirable trees and shrubs.	
No pond would be constructed at TWMA.	Habitat for migrant shorebirds and nesting waterfowl would be improved by constructing a 20-acre (approximate) pond at the TWMA.		



Water Quality, Riparian and Wetlands Table 3.1. Objectives and Management Actions by Alternative for Water Quality, Riparian, and Wetlands.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 2) Open – 0 acres Limited – 431,200 acres (limited to designated routes) Closed – 1,600 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 3) Open – 0 acres Limited – 426,400 acres (limited to designated routes) Closed – 6,400 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 4) Open – 0 acres Limited – 419,600 acres (limited to designated routes) Closed – 13,200 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 5) Open – 0 acres Limited – 428,400 acres (limited to designated routes) Closed – 4,400 acres

3.2.10 Visual Resources

Rationale

Section 102(8) of FLPMA states that public land would be managed to protect the quality of scenic values and, where appropriate, to preserve and protect certain public land in its natural condition. NEPA Section 101(b) requires Federal agencies to “assure for all Americans...aesthetically pleasing surroundings”. Guidelines for the identification of VRM classes on public land are contained in BLM Manual Handbook 8410-1, *Visual Resource Inventory*. The establishment of VRM classes is based on an evaluation of the scenic qualities of the landscape, public sensitivity toward certain areas (such as certain special management areas, travel corridors, and landscape settings), and the location of affected land from primary travel corridors (distance zoning).

Approved VRM objectives (classes) provide the visual management standards for the approval, design and development of future projects and for rehabilitation of existing projects.

Visual design considerations are incorporated into all surface disturbing projects regardless of size or potential impacts. Emphasis is placed on providing these inputs during the initial planning and design phase so as to minimize costly redesign and mitigation at later phases of project design and develop-

ment. Every effort is made to inform potential applicants of the visual management objectives so visual design considerations can be incorporated into initial planning and design efforts.

Standard Operating Procedures

- Visual Resources are managed according to BLM Manual 8400.
- Future proposals to develop public land or construct improvements would be evaluated to ensure compliance with VRM classifications.

Description of Alternatives

Visual Resources – Alternative A

The narrowest portion of the Snake River Canyon (the Swan Falls area) and 0.5-mile buffer zones associated with certain portions of the Oregon National Historic Trail would continue to be managed to preserve the existing character of the landscape under VRM Class I objectives. Remaining portions of the Snake River Canyon and the area around C.J. Strike Reservoir would continue to be managed as VRM Class II to minimize the level of change to the existing landscape (VRM Map 1).

Visual corridors along Simco Road, State Highways 51, 67, and 78, Interstate 84, and the portion of the NCA located west of the OTA would continue to be managed as a



travel influence zone (VRM Class III), where activities would be managed to partially retain the scenic quality for the benefit of those passing through the area on the major road networks. The remaining areas, accounting for about half of the NCA, would be managed as VRM Class IV to allow for major modifications to the existing landscape (VRM Map 1).

Visual Resources – Alternative B

The most restrictive Class would be VRM Class III (VRM Map 2). To provide for the greatest flexibility in management, the OTA and the area immediately east of the OTA would be Class IV.

Visual Resources – Alternative C

The Snake River Canyon, areas associated with the canyon, and the travel corridor in the western portion of the NCA would be managed under VRM Class II objectives to retain the existing character of the landscape and to minimize the level of change to the landscape (VRM Map 3). The area between the OTA and

the Snake River would be managed to partially retain the characteristic landscape. (VRM Map 3). These areas support the highest recreation use in the NCA. As much as possible, the major part of the Oregon Trail experience is being able to have views unencumbered by modern developments.

The OTA Light Maneuver Area and the remaining upland plateau areas would be managed to partially retain the existing visual values of the area as VRM Class III. The OTA heavy maneuver and Impact Areas would be managed under VRM Class IV.

Visual Resources – Alternative D – Proposed

This alternative would manage areas along the Oregon Trail and the Snake River Canyon as Class II, the OTA as Class IV and remaining areas as Class III (VRM Map 4). This would provide reasonable protection of the Oregon Trail and more flexibility in managing the remainder of the NCA.

Visual Resources Table 3.1. Objectives and Management Actions by Alternative for Visual Resource Management.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Minimize additional impacts to the current visual resources.	Protect the visual resources in important cultural, historic, scenic, and recreation areas.	Emphasize protecting the visual resources of the Snake River Canyon, cultural, historic, and recreation areas.	Emphasize protecting the visual resources of historic areas with a secondary emphasis on the Snake River Canyon.
Management Actions:			
VRM I – 10,300 ac VRM II – 21,400 ac VRM III – 205,700 ac VRM IV – 246,300 ac	VRM I – 0 ac VRM II – 0 ac VRM III – 308,000 ac VRM IV – 175,700 ac	VRM I – 0 ac VRM II – 187,200 ac VRM III – 219,800 ac VRM IV – 76,700 ac	VRM I – 0 ac VRM II – 54,100 ac VRM III – 298,600 ac VRM IV – 131,000 ac

3.2.11 Wild Horses and Burros

The amount of the Black Mountain HMA within the NCA is relatively small (7%) and receives minimal use by wild horses; therefore no change in management is proposed in any of the alternatives. The HMA would be managed in conformance with the Owyhee RMP.

**3.2.12 Idaho Army National Guard
Rationale**

The IDARNG conducts military training activities in the 138,500-acre OTA (all ownerships) under the authority of a MOU, which was last amended in 2002. Among other



things, the 2002 amendment extended the term of the MOU to 30 years, and provided for additional amendments at the conclusion of the RMP process to incorporate decisions that affect operational aspects of the OTA.

Standard Operating Procedures

- Military training activities would be restricted from sensitive resource areas and cultural resources.
- The Impact Area would remain closed to public access for safety purposes. The closure is incorporated as an Ada County ordinance, the purpose of which is to protect the public from the potential safety and health hazards related to unexploded ordnance and munitions-related chemical soil contamination.
- Existing firing ranges, support and maintenance facilities, and utilities, which have been authorized under BLM ROW, would continue to be operated, maintained, and upgraded by IDARNG as authorized.
- The IDARNG would continue OTA road improvements and maintenance, fence repair, sign maintenance, and public notification of training activities as authorized or required in the OTA MOU.

Description of Alternatives for Idaho Army National Guard

Management Actions Common to All Alternatives

- For liability reasons, BLM would recommend to Congress, through the Secretary of Interior, that the OTA Impact Area be withdrawn to the Department of Defense (DoD), with the IDARNG having administrative authority for all uses in the area, including livestock grazing.
- In accordance with requirements in the MOU, BLM and the IDARNG would develop Standard Operating Procedures to address and monitor recreational and/or other uses in the OTA.

Idaho Army National Guard – Alternative A

The IDARNG would be authorized to continue current types, levels, seasons, locations, etc. of military training within the current OTA boundary. Soldiers would continue to train on heavy armored and light armored vehicles by conducting live-fire weapons training on ranges established for that purpose (IDARNG Map 1). Helicopter gunnery training, artillery weapons training, individual and special weapons firing, and demolition training would continue within the Impact Area.

Maneuver training would continue in designated maneuver sectors (IDARNG Maps 1 and 2). Vehicle and troop movements would be conducted both on and off-road throughout the entire Maneuver Area. Administrative (non-tactical) travel through maneuver sectors would be restricted to established roads and trails. Heavy maneuver training, which involves movement by multiple tracked vehicles operating in teams, would continue in grassland areas, and would voluntarily avoid areas with heavy shrub cover. These open grassland areas would be designated for off-road tracked and wheeled vehicle tactical maneuvers. Tracked vehicle activity would also occur on established roads and trails. Light maneuver training, which includes wheeled vehicles and infantry operations on-foot, would continue in areas where vegetation includes both grasslands and shrub cover; however, the IDARNG would avoid off-road maneuver training in areas with heavy shrub cover.

Assembly and bivouac areas and logistical and training support activities would occur in non-shrub areas of sufficient size to accommodate the training. This activity consists of heavy vehicle maintenance, large-scale food preparation, refueling of vehicles, communication centers, medical treatment, and other logistical activity. Existing cindered areas in the OTA would be maintained to support many of these operations.

Excavation and engineer dig training would occur in one five-acre site (IDARNG Map 2).



All excavation sites would be filled and smoothed once training is completed.

Temporary short-term drop zones would be authorized by the BLM on a case-by-case incidental basis. Training consists of parachute dropping of equipment and/or personnel from cargo aircraft flying at elevations from 800 feet (ft.) to 25,000 ft. above ground level.

Grazing activities within the OTA Maneuver Areas would be coordinated between livestock permittees, the BLM, and the IDARNG.

Recreation activities including, but not limited to, recreational shooting, on road motorized vehicle activities (four wheelers, ATVs, dirt bikes), horseback riding, hiking, and bird watching, could occur in the OTA.

Idaho Army National Guard – Alternative B

Under this alternative, the MOU would be revised to authorize IDARNG to continue military training operations in the OTA, but vehicle maneuver training would be restricted to designated routes in the 22,300 acre Bravo Area to protect an extensive Wyoming big sagebrush community and occupied slickspot peppergrass habitat. This restriction would become effective only after the authorization for expanded Maneuver Area goes into effect on land adjacent to the existing OTA boundary. Off-road vehicle maneuver training in the remainder of the OTA would be restricted to areas with less than 10% shrub canopy cover.

This alternative would authorize an expanded maneuver training area of approximately 20,400 acres located adjacent to the southeast corner of the OTA (IDARNG Map 3). This area has been impacted by repeated wildfires, and has limited capability for future restoration projects. This additional maneuver space would enable the IDARNG to rotate its training activities to minimize soil disturbance and better facilitate restoration efforts in other areas. Since most of the area is located east of Simco Road, access across this heavily traveled road causes potential safety concerns. As

such, IDARNG would be required to restrict their crossing of tanks and other heavy equipment to one location near the southern end of proposed expansion area.

Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and as needed throughout the rest of the NCA in non-shrub areas defined as areas with less than 10% shrub cover. Non-vehicle (foot) training would be authorized throughout the OTA. When authorized by BLM, frequently used sites would be graveled or cindered.

To enhance the ability of the IDARNG to conduct more realistic battlefield excavation and earth moving training, excavation training would occur in the current five-acre Excavation Site with two additional excavation sites of approximately 50 acres each authorized as shown in IDARNG Map 3. The additional sites are located in previously disturbed non-shrub areas.

Temporary or permanent drop zones as described in Alternative A would be authorized by the BLM on a case-by-case basis.

Current recreation activities within the OTA would continue, with the exception of recreational shooting. The Plateau shooting restriction would be expanded to include the northern portion of the OTA and the area north of Moore Road (approximately 99,400 acres). This expansion is predicated on the increasing numbers of recreational shooters that are causing safety hazards with military training, grazing, and recreational activities in the portion of the OTA located north of the Impact Area. Use of firearms within the area for animal damage control and law enforcement would be exempt from the shooting closure. The existing Canyon shooting restriction would be unchanged (Recreation Map 5).

Idaho Army National Guard – Alternative C

Vehicle maneuver training would be restricted to three graveled roads on 18,400 acres as



identified on IDARNG Map 4, with the Snake River Support Facility and existing hardened administrative assembly and bivouac areas still available for military training. Also, the OTA boundary would be modified to remove approximately 3,900 acres of occupied slickspot peppergrass habitat (IDARNG Map 4). Suitable and occupied slickspot peppergrass habitat would still exist in other Maneuver Areas of the OTA, and IDARNG would continue to monitor and protect those areas.

As in Alternative B, the IDARNG would be restricted from conducting off-road maneuver training activities in areas with 10% or greater shrub canopy cover.

Existing hardened assembly and bivouac areas in the Bravo Area (IDARNG Map 1) would continue to be used, and assembly and bivouac areas throughout the remaining areas would continue to be operated in non-shrub areas.

Excavation and engineer dig training would continue in only one historically used five acre site as in Alternative A (IDARNG Map 4)

No permanent military drop zones would be authorized in this alternative.

There would be no BLM administered livestock grazing except for fuels and weeds management purposes. As a part of the withdrawal of the Impact Area to DoD, the IDARNG would assume the administrative authority for livestock grazing management.

Shooting restrictions would be the same as Alternative B.

Idaho Army National Guard – Alternative D – Proposed

To protect an extensive Wyoming big sagebrush community and occupied slickspot peppergrass habitat vehicle maneuver training in the Bravo Area would be the same as identified in Alternative B. An additional 4,100 acres identified on IDARNG Map 5 would be added to the OTA for maneuver training. In the remainder of the OTA, levels of military training would be adjusted to compensate for increased maneuver restrictions. In the remainder of the OTA, off-road vehicle maneuver training would be restricted to areas with less than 10% shrub canopy cover. Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and where authorized by BLM throughout the rest of the area. When authorized, frequently used sites would be graveled or cindered.

Within the OTA, temporary or permanent drop zones, administrative assembly and bivouac areas and excavation training would be managed as described in Alternative B.

To enhance the ability of the IDARNG to conduct more realistic battlefield excavation and earth moving training, excavation training would continue to be authorized in the current five-acre Excavation Site with one additional excavation site of approximately 50 acres authorized as shown in IDARNG Map 5.

Recreation activities including, but not limited to, on-road motorized vehicle activities, horseback riding, hiking, bird watching, etc. could occur in the OTA. The Canyon and Plateau shooting restriction areas would be the same as Alternative A.



Idaho Army National Guard Table 3.1. Objectives and Management Actions by Alternative for the IDARNG.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Current types, levels, seasons, locations, etc. of military training would be authorized within the existing OTA boundary.	Authorize military training in a manner that reduces impacts to existing shrub habitats, supports BLM habitat restoration projects, and provides modified and/or new training areas to enhance military training opportunities.	Authorize military training within the existing OTA boundary only to the extent that it accommodates BLM restoration and protection programs.	Same as Alternative B.
Management Actions:			
The IDARNG would continue to have initial attack responsibility for fires within the OTA when training is being conducted. The IDARNG would continue to maintain a BLM authorized firebreak system, and pre-burn fuel concentrations around live-fire target areas as authorized by BLM. Strict controls of ignition sources (pyrotechnics and tracer ammunition) in times of high fire danger would continue.			
Preventing introduction and control of noxious and invasive plant species into the OTA would continue. Enforcement of the IDARNG policy requiring all vehicles from outside the Treasure Valley area to be washed prior to entering the OTA would continue.			
Recommend to Congress, through the Secretary of Interior, that the Impact Area of the OTA be withdrawn to the DoD, with the IDARNG having administrative authority for all uses in the area including livestock grazing in the Impact Area.			
Military training activities would voluntarily avoid heavy shrub stands.	Military training activities would avoid shrub stands with 10% or greater canopy cover.		
Current types, levels, seasons, locations, etc. of military maneuver training would continue (IDARNG Map 2).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres, and an additional 20,400 acre maneuver training area would be made available (IDARNG Map 3).	Off-road vehicle maneuver training would be restricted to three graveled roads in 18,400 acres and 3,900 acres would be removed from the OTA (IDARNG Map 4).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 4,100 acres would be made available for training (IDARNG Map 5).



Idaho Army National Guard Table 3.1. Objectives and Management Actions by Alternative for the IDARNG.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Administrative assembly areas would be located as needed in non-shrub areas. Frequently used sites would be graveled or cindered when authorized by BLM.	Administrative assembly and bivouac areas would be located adjacent to designated roads in the Bravo Area and as needed throughout the rest of the area in non-shrub sites. Frequently used sites would be graveled or cindered when authorized by BLM.	Existing hardened administrative assembly and bivouac areas in the Bravo Area would continue to be used, and administrative assembly and bivouac areas would be located as needed in non-shrub areas outside of the Bravo Area. Frequently used sites would be graveled or cindered when authorized by BLM.	Same as Alternative B.
Excavation training would continue in one historically used site (IDARNG Map 2).	Excavation training would continue in the current site and would be authorized in two additional 50-acre sites (IDARNG Map 3).	Same as Alternative A. (IDARNG Map 2 and 4)	Excavation training would continue in the current site and would be authorized in one additional 50-acre site (IDARNG Map 5).
The authorization of short-term/temporary military drop zones would be evaluated on a case-by-case basis.	Temporary or permanent military drop zones would be evaluated on a case-by-case basis.	No military drop zones would be authorized.	Same as Alternative B.
Current Plateau (37,800 acres) and Canyon (23,500 acres) recreational shooting restriction areas would be retained (Recreation Map 4).	The Canyon shooting restriction area would be retained, and the Plateau shooting restriction area would be enlarged to 99,400 acres (Recreation Map 5).		Same as Alternative A.
Grazing levels would be determined through the S&G process.		There would be no public land grazing administered by BLM except for fuels and weeds management purposes.	Same as Alternative A.



3.2.13 Lands and Realty

Rationale

The NCA Lands and Realty program is composed of discretionary and non-discretionary cases. Non-discretionary cases are application-generated proposals, which BLM is required to process, such as rights-of-way (ROW), land use permits, and various leases. Congress has delegated BLM wide discretionary authority to determine if specific proposals merit authorization, and if so, where and under what terms and conditions an authorization should be granted.

Discretionary cases consist largely of land adjustment proposals that BLM proactively generates, as well as proposals that are filed by outside sources. BLM has full discretion to determine whether to act on specific land adjustment proposals. In its evaluation process, BLM determines whether a proposal is feasible, whether it is in the public interest, and whether sufficient personnel and funding are available to process the case. Land adjustment proposals mainly involve the acquisition of inholdings and the blocking up of Federal ownership to facilitate management and to reduce conflicts with adjacent landowners.

Designation of utility corridors and avoidance areas are non-discretionary actions (also see Utility and Communication Corridors Section 3.2.19). The designation of areas as either suited or unsuited for a specific use is a landscape-scale RMP decision that bears heavily on future ROW applications. An existing utility corridor crosses the extreme eastern corner of the NCA. Although not needed in the near term, the utility industry has requested that an additional corridor be designated. Related to this issue, the NCA possesses certain resources and other values that could be impacted by utility or other types of development. As such, the designation of an avoidance area(s) would be appropriate to protect these sensitive resources.

An issue related to land adjustment is the potential realignment of the NCA boundary. The original NCA boundary was located largely

through negotiations with individual landowners following a general determination of the foraging needs of prairie falcons. The boundary was located on property lines and other administrative boundaries, and does not conform to easily identifiable landmarks, such as roads, railroads, pipelines, transmission lines, etc. Because of this, both land managers and users have difficulty determining the exact boundary in many locations.

Standard Operating Procedures

- All lands and realty proposals undergo site-specific NEPA analysis, and must be compatible with the purposes for which the NCA was established. As such, these individual site-specific actions are not RMP decisions, and will not be discussed further.
- Tribal and public access needs would be considered in all land tenure adjustments.
- Important sensitive species and other wildlife habitat would be retained in public ownership, unless a proposed exchange would result in acquisition of higher quality habitat.
- Land containing significant cultural resources would be retained in Federal ownership.
- Lands that are acquired for or that otherwise become a part of the NCA will be managed under the requirements of the NCA-enabling legislation and the management will be consistent with the adjacent NCA public lands as described in the RMP.
- Public lands that are removed from the NCA by virtue of a boundary adjustment will be managed consistent with the BLM land use plan for the adjacent Field Office.

Description of Alternatives for Lands and Realty

Management Actions Common to All Alternatives

- Recommend to Congress, through the Secretary of Interior, that the Impact Area of the OTA be withdrawn to the DoD, with the IDARNG having administrative au-



thority for all uses in the area including livestock grazing.

Lands and Realty – Alternative A

The existing 43,000-acre avoidance area in Owyhee County (Lands Map 3) would be retained.

Land tenure adjustments (exchanges, purchases, donations, etc.) would continue to be evaluated on a case-by-case basis, and would be completed only when they are in the public interest and are consistent with the NCA-enabling legislation and the slickspot peppergrass CA.

Lands and Realty – Alternative B

A 105,000-acre avoidance area would be designated along both sides of the canyon from approximately Guffey Bridge to C.J. Strike Dam (Lands Map 4) to protect the visual corridor along the canyon and the Oregon Trail.

BLM would continue with the land tenure adjustment program discussed in Alternative A, and would also seek to complete a land exchange with the State of Idaho Department of Lands (IDL) to consolidate BLM and State lands. State lands are not affected by the NCA-enabling legislation; however, both agencies are signatories to the slickspot peppergrass CA. Thus, no change to slickspot peppergrass management would occur from the exchange, and both BLM and State land management would be enhanced by blocking up their respective ownerships. In general, the land exchange would be on an acre-for-acre

basis and as such existing permittees would continue to graze in their current locations.

Lands and Realty – Alternative C

BLM would establish a 159,000-acre avoidance area (Lands Map 5). BLM would continue with land exchanges and acquisitions as discussed in Alternative A, and with the State land exchange discussed in Alternative B.

The current NCA boundary is difficult to identify on the ground. As such, the public often cannot tell where NCA-related land use restrictions apply. To improve management and facilitate public use, BLM would recommend that Congress realign the NCA boundary onto more easily identifiable boundaries, such as roads, railroads, etc. (Lands Map 6).

Lands and Realty – Alternative D – Proposed

The State land exchange would be completed as discussed in Alternative B and a recommendation to realign the boundary (Lands Map 7) would be made to Congress.

Compatible energy-related ROW would be encouraged in cooperation with and in support of the National Energy Policy, with the exception of wind energy developments. (Also see the Utility and Communication Corridor Section 3.2.19).

An avoidance area would be maintained on the east side of Highway 78, as shown on Lands Map 6, to protect the visual corridor along the Historic Oregon Trail and the visual resources along the Snake River canyon.



Lands and Realty Table 3.1. Objectives and Management Actions by Alternative for Lands and Realty.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
As opportunities arise, public land ownership would be consolidated within the existing NCA boundary to facilitate administration.		Consolidate public land ownership and realign portions of the NCA boundary to enhance administration and improve resource management.	
Management Actions:			
Complete a land exchange with the Idaho Department of Lands to acquire scattered State lands within the NCA to block up State and Federal ownership.			
As opportunities arise, acquire private lands containing significant resources values that enhance overall management within the NCA.			
Land exchanges would enhance or at least not adversely affect raptor populations or their habitat, and public lands containing sensitive plant habitat would be retained unless they can be exchanged for lands containing better habitat and/or more important resource values.			
Recommend to Congress, through the Secretary of Interior, that the Impact Area of the OTA be withdrawn to the DoD, with the IDARNG having administrative authority for all uses in the area including livestock grazing.			
The existing 43,000-acre avoidance area in Owyhee County (Lands Map 3) would continue to be managed as such.	To provide additional resource protection along the Snake River Canyon, the existing avoidance area would be enlarged to 105,000 acres (Lands Map 4).	A 159,000-acre avoidance area would extend from Guffey Bridge to Hammett to protect the scenic values of the Snake River Canyon and the nearby Oregon Trail (Lands Map 5).	The existing avoidance area would be reduced to delete those areas located west of Highway 78 (Lands Map 6).
The NCA boundary would be unchanged.		Recommend to Congress to realign the NCA boundary to areas more easily identified on the ground (Lands Map 6).	Recommend to Congress to realign the NCA boundary to areas more easily identified on the ground (Lands Map 7).
The existing utility corridor would be retained and no new utility corridors would be designated. All major energy transmission systems would be located within the existing utility corridor.	The existing utility corridor would be retained and a new utility corridor would be provided north of, and parallel with the Snake River (Lands Map 2).	The existing utility corridor would be retained and a new utility corridor would be provided south of the Snake River Canyon and roughly paralleling Highway 78. (Lands Map 2).	The existing utility corridor would be retained and a new utility corridor would be provided south of the Snake River Canyon and roughly paralleling Highway 78. (Lands Map 2).



3.2.14 Livestock Grazing

Rationale

Section 3(a)(3) of the Act establishing the NCA provides that uses of public lands existing on the date of enactment, including livestock grazing, shall be allowed to continue as long as they are consistent with the purposes for which the NCA was established. It is the intent of the BLM to manage livestock grazing in a manner that achieves objectives related to the conservation, protection, and enhancement of raptor populations and habitats.

Rangelands should be meeting Idaho S&Gs (Appendix 3) or making significant progress toward meeting the standards. When rangelands are meeting standards, they are providing for proper nutrient cycling, hydrologic cycling, and energy flow. Where livestock grazing is found to be a factor in not meeting a standard(s), stocking levels, duration, and season of use, are adjusted to help the area make progress toward meeting the standard(s).

Standard Operating Procedure

- Allotment Assessments/Evaluations and subsequent grazing permit modifications would receive priority based upon the potential level of livestock grazing impacts to other resources.
- Grazing permits would be revised or developed where evaluations show that S&Gs (Appendix 3) are not being met.
- Grazing management practices would:
 - o Provide for periodic rest and/or deferment during the critical growth stages of key forage plant species or allow sufficient re-growth to meet their needs for maintenance and reproduction.
 - o Provide for adequate amounts of vegetative ground cover and litter (determined on an ecological site basis) to support infiltration and soil stability, to protect resources, and to maintain site productivity.
 - o Provide sufficient residual vegetation to shade stream channels, provide cover, capture sediment, and stabilize

stream banks and channels so that streams are properly functioning.

- o Provide sufficient residual vegetation to maintain wetland functions, including dissipating water energy, capturing sediment, recharging ground water, stabilizing shorelines and streambanks, and providing structure for wildlife habitat appropriate to site potential.
- Check for presence of sensitive species (using existing data or new field surveys) before authorizing new projects or activities. Adjust plans as necessary to eliminate or mitigate effects to sensitive species.
- When opportunities arise, consider retiring all or portions of grazing permits in deference to wildlife habitat management.
- Necessary livestock facilities would be authorized to implement changes in grazing management practices (intensity, timing, duration, and distribution).
- Grazing management practices would be designed and scheduled to support vegetation management projects (restoration, fuels and ESR projects).
- When rehabilitated or restored areas are again available for livestock grazing, the area would be reevaluated under S&Gs (Appendix 3) to determine which grazing practices would best provide for the long-term maintenance and protection of the restored area. Likewise, the area would be a priority for annual monitoring to assure the continued viability of the project.

Description of Alternatives for Livestock Grazing

Management Action Common to All Alternatives

- Recommend to Congress, through the Secretary of Interior, that the Impact Area of the OTA be withdrawn to the DoD, with the IDARNG having administrative authority for all uses in the area including livestock grazing. There would potentially be increased restrictions imposed to assure permittee safety. These restrictions could include limitations on access and the loca-



tion of watering troughs and range improvements.

Management Actions Common to Alternatives A, B and D

- Stocking levels, seasons and duration of use would be determined through the S&G process, which would include the potential for increases or decreases in authorized AUMs. (Appendix 3).
- Grazing levels and seasons of use would be managed to maintain current populations of SSPs.
- Areas treated for restoration or rehabilitation purposes would be rested from livestock grazing for whatever time is required for adequate recovery and/or seedling establishment. For purposes of analysis, 10 years is the average time areas would be rested from grazing. Although this rest period is significantly longer than would normally be used, it incorporates the assumption that many projects would not be initially successful. Unsuccessful projects would require additional treatment(s), which would significantly extend the period of time the affected area was rested from grazing. In most situations, permittees would resume grazing long before 10 years, but on average; the 10 year assumption provides an adequate basis for analyzing the different effects that the various alternatives would have on livestock grazing.
- BLM would not permit grazing that adversely affects the Idaho springsnail or its habitat on BLM-managed lands along the Snake and Bruneau Rivers or C.J. Strike Reservoir.
- Livestock grazing in pastures that are principally annual vegetation (Grazing Map 7) would be managed to leave sufficient residual litter for watershed protection.

Livestock Grazing – Alternative A

In addition to meeting the minimum requirements of laws, regulations, and policy mandates that apply to livestock grazing on public lands, additional proactive grazing manage-

ment actions would be implemented consistent with the intent of the NCA enabling legislation.

Approximately 3,900 acres, which includes Priest Ranch, located downstream from Swan Falls Dam, TWMA, Gold Isle, Cove Recreation Site, and Pasture 8B of the Battle Creek Allotment would continue to be closed and/or unallocated to protect wildlife habitat, reduce impacts to Snake River wildlife species, and protect cultural and recreational values (Grazing Map 4). Priest Ranch (340 acres) was acquired for wildlife purposes and has never been opened to livestock grazing. TWMA (300 acres) is managed only for wildlife purposes. Gold Isle (120 acres) was acquired for its wildlife values, and was never opened to grazing. Battle Creek Pasture 8B (3,040 acres) is unallocated because it is unfenced and lies along Highway 78 and adjacent to private lands. The adjacent Cove Recreation Site (100+ acres) is closed to grazing.

Although the current BLM grazing preference is about 44,000 AUMs, over the past 10 years, annual actual use has averaged 28,500 AUMs. Approximately 5,000 AUMs are from the OTA Impact Area and under the withdrawal would become the responsibility of the IDARNG. Future changes in grazing preference would be determined through the S&G process (Appendix 3).

Grazing activities in the OTA Impact Area would be coordinated between BLM, IDARNG, and grazing permittees to minimize conflicts and assure safety.

Livestock Grazing – Alternative B

As in Alternative A, stocking levels, seasons and duration of use would be determined through the S&G process (Appendix 3), as well as other NCA resource objectives, such as fuels management and habitat restoration. Stocking levels in annual grass pastures and/or allotments would be based on available forage.



Livestock grazing closures would continue as identified in Alternative A. In addition, 3,400 acres at Kuna Butte and the Pasture 8B of the Battle Creek allotment would be closed to grazing, and 1,300 acres along the Snake River downstream from Swan Falls Dam would have a seasonal grazing restriction to reduce conflicts with recreation use during the spring (Grazing Map 5). Forage competition between Piute ground squirrels and livestock would be minimized. Grazing at Kuna Butte for fuels and weeds reduction purposes would continue on an as-needed basis to protect adjacent private lands.

A more aggressive hazardous fuels management and habitat restoration program would be initiated, which would affect stocking levels, seasons of use, and turn out dates. Areas having been treated under restoration or rehabilitation projects and would be rested from livestock grazing until they achieve the desired resource objective.

Approximately 50,000 acres of raptor prey habitat would be restored. Habitat would be restored in those areas deemed most beneficial to raptor populations. Season of use, duration of use, and stocking levels would be managed to improve key forage plant vigor and cover and to meet long-term land management objectives for rangeland health. After a habitat restoration seeding has become established, the BLM authorized officer would determine when, how, and to what extent livestock grazing would be returned to the area to ensure long-term maintenance of habitat quality and watershed health.

In addition, approximately 70,000 acres of hazardous, highly flammable fuels would be treated through a combination of biological, chemical, and mechanical fuels management projects with the specific objective of reducing fire hazard.

For the purposes of analysis, we are estimating that during the first 10 years the average number of acres annually rested from grazing would increase from 6,000 acres to approxi-

mately 70,000 acres, after which 70,000 acres would be annually rested with livestock grazing resuming once full restoration objectives are met.

This level of rest would result in an average level of 24,100 AUMs including the 5,000 AUMs in the Impact Area that would be administered by the IDARNG. The average of approximately 10 years rest from grazing following vegetation treatment, accounts for those projects that may need to be treated more than one time before meeting objectives (USDA Sept. 2004, p 195; Monsen *et al.* 2004, pp 193-198).

A land exchange with the IDL would be accomplished to facilitate management of the NCA. In general, the State land exchanges would be completed on an acre-for-acre basis and it is expected that existing permittees would continue to graze in their current locations.

Livestock Grazing – Alternative C

There would be no public land grazing outside the OTA Impact Area except for vegetation management purposes (hazardous fuels and weeds reduction); however approximately 5,000 AUMS could be administered by the IDARNG under the withdrawal of the Impact Area.

Livestock Grazing Alternative D – Proposed

As in Alternatives A and B, stocking levels, seasons and duration of use would be determined through the S&G process (Appendix 3), as well as other NCA resource objectives.

Livestock grazing closures would be the same as Alternative B. In addition, 3,400 acres on Kuna Butte would be classified as chiefly valuable for purposes other than grazing, including recreation, special status plants, and cultural resources. As such, the area would be deleted from the Sunnyside Spring/Fall Allotment, and the area would only be grazed for fuels and weeds reduction purposes on an as-needed basis (Grazing Map 6). The 1,300



acres along the Snake River downstream from Swan Falls Dam would have a seasonal grazing restriction to reduce conflicts with recreation use during the spring. Forage competition between Piute ground squirrels and livestock would be minimized.

Livestock grazing management relative to restoration and fuels management projects would be the same as described in Alternative B but over a larger area. During restoration, the adjudicated AUMs for the treated area would be suspended. When a seeding has been determined to be successfully established, the BLM authorized officer would determine through the S&G process (Appendix 3) when, how, and to what extent livestock grazing would be authorized to ensure that future livestock grazing is managed to maintain the long-term habitat quality of the area.

For the purposes of analysis, we are estimating that during the first 10 years the average number of acres annually rested from grazing would increase from 11,500 acres to approximately 115,000 acres, after which 115,000 acres would be annually rested with livestock grazing resuming once restoration objectives have been met.

This level of rest would result in an average level of 20,000 AUMs including the 5,000 AUMs in the Impact Area that would be administered by the IDARNG. The average of approximately 10 years rest from grazing following vegetation treatment, accounts for those projects that may need to be treated more than one time before they meet objectives (USDA 2004, p 195 and Monsen *et al.* 2004, pp 193-198).

Livestock Grazing Table 3.1. Objectives and Management Actions by Alternative for Livestock Grazing.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Livestock grazing would be managed to protect and enhance raptor populations and habitats.			
Common to Alternative A, B, and D Management Actions:			
Grazing would be managed in accordance with conservation measures listed in Appendix 12.			
Where needed, livestock exclosures would be used to protect sensitive plants or their habitat. Existing exclosures would be maintained.			
Livestock grazing within the OTA Impact Area would be administered by IDARNG following the withdrawal of the Impact Area to the DoD.			
Management Actions:			
Grazing levels would be determined through the S&G process		There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A
Livestock grazing in perennial pastures would be managed in accordance with S&Gs.	Livestock grazing in perennial pastures would be managed to minimize impacts to Piute ground squirrels	There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative B.
Livestock grazing in annual grass pastures would leave sufficient residual litter for watershed protection.		There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A.



Livestock Grazing Table 3.1. Objectives and Management Actions by Alternative for Livestock Grazing.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Priest Ranch, TWMA, Gold Isle, and Pasture 8B of the Battle Creek Allotment (3,900 acres) would not be grazed (Grazing Map 4).	Same as Alternative A and grazing would be closed on Kuna Butte (3,400 acres) and seasonally restricted on additional 1,300-acres (Grazing Map 5).	There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A, plus Kuna Butte (3,400 acres) would receive only intermittent grazing for fuels and weeds reduction, and grazing would be seasonally restricted on additional 1,300-acres. (Grazing Map 6)
When forage conditions warrant, approximately 200 acres would be grazed by livestock to reduce flammable fuels in the WUI.	When forage conditions warrant, up to 1,500 acres of firebreaks or greenstrips may be grazed to reduce flammable fuels. (Grazing Map 3)		
In addition to habitat restoration projects, 10,000 acres would be treated through a combination of biological, chemical, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 70,000 acres would be treated through a combination of biological, chemical, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 100,000 acres would be treated through a combination of biological, chemical, and mechanical fuels management projects.	
Up to 10,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 50,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal habitat would be restored.	

3.2.15 Mineral Resources

3.2.15.1 Leasable Minerals

The NCA-enabling legislation closed the area to the operation of the mineral leasing laws.

3.2.15.2 Mineral Materials

Rationale

Section 3(d) of the NCA-enabling Act withdrew public lands in the NCA from entry, appropriation, or disposal under the general mining laws, mineral and geothermal leasing laws, and mineral material disposal laws. The Act provided for the continued extraction of min-

eral materials (sand, gravel, clay, building stone, and decorative rock) through mineral material sales and free use permits from sites that existed prior to the establishment of the NCA; however, no new mineral material sites may be established. BLM manages 16 active mineral material sites. There also exist another 29 previously-operated, but currently inactive sites. The public, communities, and government agencies have an ever-increasing need for mineral materials for the construction, repair and maintenance of homes, businesses, and public facilities, such as roads. Mineral material sales and free use permits would con-



tinue to be authorized to the extent compatible with the purposes for which the NCA was established.

Description of Alternatives for Mineral Materials

Mineral Materials – Alternative A

BLM would issue mineral material sales and free use permits from existing active mineral material sites, and those sites would be reauthorized when the existing permits expire if adequate material is available. Also, if compatible with the NCA legislation, currently inactive sites could be reopened for operation if needed to meet the demand for mineral materials.

Mineral Materials – Alternative B

BLM would continue to issue mineral material sales and free use permits from existing mineral material sites, and if adequate material were available, those sites would be reauthorized when the existing permits expire. However, currently inactive sites would not be reopened for operation.

Mineral Materials – Alternative C

Same as Alternative B.

Mineral Materials – Alternative D – Proposed

Same as Alternative A.

Minerals Table 3.1. Objectives and Management Actions by Alternative for Mineral Materials.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objective: Authorize mineral material sales and free use permits from existing active and inactive sites to the extent compatible with the NCA-enabling legislation.			
Management Actions:			
No new mineral material sites would be established.			
Authorize mineral material extraction from compatible active mineral material sites. Inactive sites could be reopened for operation if compatible.	Authorize mineral material extraction from compatible active mineral material sites if adequate material is present; however, inactive sites would not be reopened.		Same as Alternative A

3.2.15.3 Locatable Minerals

There is only one valid mining claim in the NCA, which has never been active. The NCA enabling legislation withdrew the area from further mineral location and disposal.

3.2.16 Recreation

Rationale

The FLPMA recognized recreation as an important component of multiple use management. Dispersed, unstructured activities typify most of the recreational uses occurring across the NCA. BLM Manual 8300 directs the BLM to designate administrative units known as

SRMAs where there is a need for a higher level of managerial presence or investment than is typical of most public land. Public land outside of SRMAs is designated as an Extensive Recreation Management Area (ERMA) where limited resources are required to provide extensive, unstructured recreational activities.

The NCA-enabling legislation states that...*“the secretary may provide for visitor use of the public lands in the conservation area to such extent and in such manner as the Secretary considers consistent with the protec-*



tion of raptors and raptor habitat, public safety, and the purposes for which the conservation area is established”. Educational values are also recognized in the legislation and are given a major management emphasis. Although the Recreation Opportunity Spectrum (ROS) approach to management is used to identify areas where certain types of recreation experiences would occur, we do not expect to provide the full range of experiences because the primary management focus in the NCA is raptor and habitat protection (Appendix 15).

It should be noted that existing and proposed shooting restrictions discussed in this section are not hunting regulations, but are meant to aid in achieving the NCA mission of providing for public use of the area consistent with public safety, as required by Section 4(d) of the NCA-enabling Act. Hunting regulations are promulgated by the Idaho Fish and Game Commission to manage wildlife populations, which are the property of the state, in accordance with statutory obligations.

It should also be noted that the proposed alternative (Alternative D) for recreational shooting management has been changed to reflect the existing situation described in Alternative A. This change was promulgated by the concern that a shooting restriction in the northern portion of the OTA could displace recreational use further south into an area of the OTA that accommodates more concentrated military use, and which could potentially increase user conflicts

Standard Operating Procedures

Recreation resources are managed according to BLM Manual 8300.

Description of Alternatives for Recreation

Management Actions Common to All Alternatives

- Under all alternatives, a majority of the NCA would continue to be managed for “roaded natural” experience opportunities. This means the visitor could expect some opportunities to affiliate with other users in developed sites, but with some chance

for privacy. Self-reliance on outdoor skills would be of only moderate importance and there would be little challenge and risk. The landscape is mostly natural appearing as viewed from roads and trails. BLM management would be obvious in some areas for on-site control of users. Access and travel would be afforded with conventional motorized vehicles including sedans, trailers, recreation vehicles and motor-homes.

- Most of the NCA would be managed to emphasize undeveloped, motorized recreation experiences with limited facility development. All alternatives assume that most recreation-related improvements would be undertaken to protect resource values and to serve as staging areas for resource-based use, and not as visitor attractions in and of themselves.
- Outreach and public presentations play a significant role in all alternatives. Signs, brochures, maps, kiosks, websites, and other “light handed” measures would be the priority methods used to meet management objectives.
- Commercial recreation use would be authorized; however, no more than 5 land-based and 5 river-based permits would be authorized at any one time.
- Pursuant to section 4(b)(8) of the NCA enabling legislation, future recreation facility developments will be evaluated during the design and construction phase to determine whether fees for public use are appropriate.
- Higby Cave is closed to public entry for safety reasons.
- *Recreational Shooting* – The current Canyon and Plateau shooting restrictions would be retained, as described below (Recreation Map 4). Use of firearms within these areas for animal damage control and law enforcement is exempt from the shooting closure.
 - *Plateau* (37,700 acres) – The portion of the NCA located north of the PacifiCorp powerline, as well as the area located south of the PacifiCorp powerline and west of Swan Falls



Road would be closed year-round to the discharge of rifles and pistols.

- *Snake River Canyon* (23,500 acres) – Closed year-round to the discharge of rifles and pistols within the Snake River Canyon downstream from Gold Isle (near Grandview) except for the deer hunting season in Hunting Unit 40 on the south side of the Snake River. Shotguns and muzzleloaders would be allowed from September 1 to February 14. The width of the closed area is ½ mile from the river or 100 yards back from the canyon rim, whichever is greater.

Recreation – Alternative A

Recreation Opportunity Spectrum – Although the majority of the NCA would continue to be managed for “roaded natural” experience opportunities (467,900 acres), nearly 1,600 acres of opportunities for semi-primitive non-motorized experiences in the western portion of the Snake River Canyon would be provided, and 114,200 acres would be managed for semi-primitive motorized experience.

Facilities – Developed recreational facilities would only be provided at Dedication Point, Cove Recreation Site, and Rabbit Creek Trailhead. These sites would be maintained, improved, and expanded as needed to meet demand.

SRMAs – The five existing and overlapping SRMAs would be maintained and managed for their respective recreational values (Recreation Map 1).

- C.J. Strike Reservoir – 5,500 acres
- Oregon Trail – 3,300 acres
- Snake River BOP – 50,100 acres
- Owyhee Front – 6,300 acres
- Snake River BOP NCA – 483,700 acres

Recreational Shooting – The current Canyon and Plateau shooting restrictions would be retained, as described below (Recreation Map 4). Use of firearms within these areas for ani-

mal damage control and law enforcement are exempt from the shooting closure.

- *Plateau* (37,700 acres) – The portion of the NCA located north of the PacifiCorp powerline, as well as the area located south of the PacifiCorp powerline and west of Swan Falls Road would be closed year-round to the discharge of rifles and pistols.
- *Snake River Canyon* (23,500 acres) – Closed year-round to the discharge of rifles and pistols within the Snake River Canyon downstream from Gold Isle (near Grandview) except for the deer hunting season in Hunting Unit 40 on the south side of the Snake River. Shotguns and muzzle-loaders would be allowed from September 1 to February 14. The width of the closed area is ½ mile from the river or 100 yards back from the canyon rim, whichever is greater.

The following restrictions provide for public safety around the urban interface and high recreation use areas.

Climbing and Rappelling – Rock climbing and rappelling would continue to be prohibited along the Snake River Canyon. These activities not only adversely affect nesting raptors, but the unstable basalt rocks pose a significant safety hazard to those climbing on the cliffs.

Campfires – While specific restrictions may be imposed during high fire danger, there would be no general restrictions on open campfires.

Other Activities – Because of the impacts to the scenic quality in the high use areas of the canyon, the use of paintball guns and equipment would continue to be prohibited within the Snake River Canyon, and within 1/4 mile of the canyon rim.

Recreation activities not specifically mentioned would be evaluated on a case-by-case basis to determine their compatibility with management objectives.



Environmental Education and Interpretation – BLM would continue to provide public information and presentations about the recreational, natural, and cultural resources of the area through a variety of methods. The three existing watchable wildlife sites at Dedication Point, TWMA, and C.J. Strike Reservoir would be maintained and improved as needed to provide the public with opportunities for viewing raptors and other wildlife species in their natural habitats. Management would continue to emphasize public information and education techniques over regulatory methods to reduce user conflicts and increase public awareness, enjoyment, and sensitivity to raptors and other resources values.

Wild and Scenic Rivers (W&SR) – The Snake River currently has 49 miles of river in a free-flowing condition (Recreation Map 11) and unique wildlife values associated with the Snake River Canyon. These two conditions make portions of the Snake River eligible for future consideration for special designation under the W&SR Act. However, Alternative A would make no recommendation about W&SR suitability. It would, however, protect the free-flowing condition and the outstandingly remarkable resource values along these segments of the Snake River. The protection would be similar to that outlined in BLM Manual 8351 for National W&SR Interim Management Protection guidelines.

Recreation – Alternative B

Recreation Opportunity Spectrum (ROS) – Although the majority (98%+) of the NCA would continue to be managed for “roaded natural” experience opportunities, nearly 6,900 acres of opportunities for semi-primitive non-motorized experiences in the western portion of the Snake River Canyon and around the Grand View area would be provided (Recreation Map 6).

Facilities – Dedication Point, Cove Recreation Site, and Rabbit Creek Trailhead would be maintained and expanded as needed to meet the increasing demand for developed recreational facilities. Two additional sites would be

developed to meet user demand, with Three Pole and Initial Point being potential locations (Recreation Map 3). As necessary small secondary sites could be developed to accommodate the ever-increasing demand for recreation.

SRMAs – Four new SRMAs would be designated based on significant recreational, scenic or cultural values (Recreation Map 2).

- *Snake River Canyon SRMA* – This SRMA would consist of 22,300 acres in the Snake River Canyon, the boundary of which would include the Snake River Canyon from Guffey Bridge upstream to the town of Grand View. The Snake River Canyon receives a tremendous amount of recreational visitor use throughout the year and the area was previously designated as an Archaeological District based on the number of significant cultural sites and resources.
- *Owyhee Front SRMA* – This SRMA would consist of 6,300 acres of desert habitat located west of State Highway 78. The boundary of this SRMA extends beyond the NCA boundary into the Owyhee Field Office and is managed as a part of the larger SRMA. The recreational values are the primary reason for designation. The Owyhee Front is a major destination site for Off-Highway Vehicle use, both recreational and competitive. This area contains hundreds of miles of trails for motorized and non-motorized activities. If the NCA boundary is realigned as proposed in the Lands and Realty Section, this SRMA would no longer be within the NCA.
- *C.J. Strike SRMA* – This SRMA would consist of 20,000 acres of desert and canyon land surrounding CJ Strike Reservoir. The boundary primarily follows gravel and paved roads that surround the reservoir. The recreational values are the primary reason for designation. Numerous excellent opportunities exist for educating the public about wildlife management programs, the cultural significance of the Oregon Trail, and potential recreational



activities, including flat water boating, wildlife viewing, waterfowl and upland bird hunting, fishing, and camping.

- *Oregon Trail SRMA* – This SRMA would consist of approximately 7,900 acres lying along a one-mile wide (1/2 mile on each side of the Oregon Trail) corridor of the South Alternate of the Oregon Trail. The purpose for the SRMA would be to protect the visual and historic values of the trail.

Recreational Shooting – The existing Canyon shooting restriction would be unchanged. The Plateau shooting restrictions would continue, but the area would be expanded to include the northern portion of the OTA and the area north of Moore Road (Recreation Map 5). This expansion is predicated on the increasing numbers of recreational shooters that are causing safety concerns for military training, grazing, and recreational activities in the portion of the OTA located north of the Impact Area. Use of firearms within the area for animal damage control and law enforcement would be exempt from the shooting closure.

Climbing and Rappelling – The unstable basalt rocks of the Snake River Canyon pose a significant safety hazard to the general public climbing and rappelling on cliffs. These safety concerns also exist in areas away from the canyon where volcanic rocks are exposed. To mitigate these safety issues, rock climbing and rappelling would be prohibited throughout the NCA.

Campfires – Campfires would be limited to established (improved) campsites to reduce the potential for accidental fires that destroy important shrub habitat. Additional restrictions on campfires may be imposed during periods of high fire danger.

Other activities – Same as Alternative A.

Environmental Education and Interpretation – Same as Alternative A, except that a comprehensive interpretive plan, with recommendations for facilities, exhibits, and programs, would be developed within two years to allow

for continuity of messages and information. The three existing watchable wildlife sites would be maintained, and at least two more wildlife-viewing sites would be identified and constructed. By the year 2010, a trail network and vehicle turnouts along main routes would be established to provide additional wildlife viewing opportunities.

W&SR – Two eligible sections of the Snake River (22 miles total) would be recommended suitable for recreation designation under the W&SR Act (Recreation Map 9). The Jackass Butte segment (9 miles) flows from approximately the upstream side of Jackass Butte downstream to the backwaters of Swan Falls Reservoir. The Swan Falls segment (13 miles) flows from just below Swan Falls Dam to the western NCA boundary. Alternative B would provide interim management protection of the Outstandingly Remarkable Values of administratively suitable river segments until such time as Congress makes a determination. Refer to BLM Manual 8351 for National W&SR interim management protection guidelines.

Recreation – Alternative C

ROS – Although the majority (97%) of the NCA would continue to be managed for “roaded natural” experience opportunities, this alternative would provide for over 13,200 acres of opportunities for semi-primitive non-motorized experiences in the western portion of the Snake River Canyon and around the Grand View area (Recreation Map 7).

Facilities – Dedication Point and Cove Recreation Site would be maintained and expanded as needed to meet the increasing demand for developed recreational facilities. An additional four sites would be developed to meet user demand, with Three Pole, Black Butte, and Initial Point being possible locations (Recreation Map 3).

SRMAs – The four SRMAs described in Alternative B would be designated; however, if the proposed boundary change is implemented, then the Owyhee Front SRMA would no longer be in the NCA.



Recreational Shooting – Shooting restrictions would be the same as described in Alternative B.

Climbing and Rappelling – Rock climbing and rappelling would be prohibited throughout the NCA.

Campfires – Same as Alternative B.

Other Activities – Same as Alternative B.

Environmental Education and Interpretation – Same as Alternative B, except BLM staff would continue to educate the public about the importance and sensitivity of cultural resources, but cultural resources would not be emphasized through site-specific interpretation in order to provide them better protection. BLM would also continue to provide public information and presentations about recreational and natural resources of the area through a variety of methods.

W&SR – Four eligible sections of the Snake River (49 miles total) would be recommended suitable for recreation designation under the W&SR Act (Recreation Map 10). The Indian Cove segment (9 miles) flows from the eastern NCA boundary to the backwaters of C.J. Strike Reservoir. The Grand View segment (18 miles) flows from C.J. Strike Dam downstream to the upstream side of Jackass Butte. The Jackass Butte segment (9 miles) begins at the end of the Grand View segment and flows downstream to the backwaters of Swan Falls Reservoir. The Grand View and Jackass Butte segments are a continuous free-flowing section of river. The Swan Falls segment (13 miles) flows from just below Swan Falls Dam to the western NCA boundary. Alternative C would provide interim management protection of the Outstandingly Remarkable Values of administratively suitable river segments while awaiting a determination by Congress. Refer to BLM Manual 8351 for National W&SR IMP guidelines.

Recreation – Alternative D – Proposed

ROS – The NCA would continue to be managed for “roaded natural” experience opportunities. This alternative would provide for approximately 4,400 acres of opportunities for semi-primitive non-motorized experiences in the western portion of the Snake River Canyon and around the Grand View area (Recreation Map 10).

Facilities – Dedication Point and Cove Recreation Site would be maintained and expanded as needed to meet the increasing demand for developed recreational facilities. An additional five recreation sites would be developed, with Black Butte, Three Pole, Kuna Butte, Guffey Butte, and Initial Point being examples (Recreation Map 3). As necessary small secondary sites could be developed to accommodate the ever-increasing demand for recreation.

SRMAs – Same as Alternative C.

Recreational Shooting – Same as Alternative A.

Climbing and Rappelling – Same as Alternative C.

Campfires – Same as Alternative C.

Other Activities – The use of paintball guns and equipment would continue to be prohibited within the Snake River Canyon and within 1/4 mile of the canyon rim. Other recreational activities not specifically mentioned would be evaluated on a case-by-case basis to determine their compatibility with NCA management objectives.

Environmental Education and Interpretation – Same as Alternative C.

W&SR – The four eligible sections of the Snake River would be recommended as not suitable for inclusion in the W&SR system. The existing NCA legislation would continue to provide protection for the outstandingly remarkable values associated with the Snake



River Canyon. The VRM class II designations along the rivers, the mineral withdrawal, and limitations placed on OHV use will provide

protection for the outstanding remarkable values that would have been protected by a W&SR designation.

Recreation Table 3.1. Objectives and Management Actions by Alternative for Recreation.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives: Common to all Alternatives			
Provide a diversity of quality, resource based recreational opportunities, while protecting resource values, minimizing user conflicts, and promoting public safety.			
Management Actions:			
The Oregon Trail SRMA would restrict OHV use to designated routes that do not impact visual and historic values.			
Recreation permits would not be issued in occupied sensitive plant habitat.			
Objectives: Special Recreation Management Areas			
Current management and emphasis would continue.	Emphasize special recreational, scenic and cultural values where current and projected recreational demand warrants	Emphasize educational and interpretive values	Same as Alternative B
Management Actions: Special Recreation Management Areas			
The five existing SRMA designations would be retained (Recreation Map 1)	Four SRMAs would be designated (Recreation Map 2)	Four SRMAs would be designated; however, if the proposed boundary change is implemented, then the Owyhee Front SRMA would no longer be in the NCA (Recreation Map 2).	
Objectives: Recreational Opportunity Spectrum (ROS)			
Provide a range of developed and undeveloped recreation opportunities by maintaining existing amenities (Appendix 15).	Provide a range of developed and undeveloped recreation opportunities with existing and new amenities, and provide new opportunities for non-motorized activities and unrestricted motorized activities in a semi-primitive setting.	Provide a range of developed and undeveloped recreation opportunities with existing and new amenities, and provide increased opportunities for non-motorized activities, and unrestricted motorized activities in a semi-primitive setting.	Provide a range of developed and undeveloped recreation opportunities with existing and new amenities, while emphasizing motorized activities.
Management Actions: ROS Objectives			
The majority of the NCA would be managed in a “roaded natural” setting with limited semi-primitive non-motorized setting opportunities (1,600 acres) (Recreation Map 5).	The majority of the NCA would be managed in a “roaded natural” setting, with an additional 6,400 acres designated for non-motorized setting opportunities (Recreation Map 6).	The majority of the NCA would be managed in a “roaded natural” setting, with an additional 13,200 acres designated for semi-primitive non-motorized setting opportunities (Recreation Map 7).	The NCA would be managed in a “roaded natural” setting, with 4,400 acres designated for semi-primitive non-motorized setting opportunities (Recreation Map 8).



Recreation Table 3.1. Objectives and Management Actions by Alternative for Recreation.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Expand existing developed sites as needed (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.	Additional recreation facilities would be developed at Three Pole and Initial Point (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.	Additional recreation facilities would be developed at Celebration Park Annex, Three Pole, Guffey Butte, and Initial Point (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.	Additional recreation facilities would be developed at Celebration Park Annex, Three Pole, Guffey Butte, Black Butte, and Initial Point (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.
Current Plateau (37,500 acres) and Canyon (23,500 acres) recreational shooting restriction areas would be retained (Recreation Map 4).	The Canyon shooting restriction area would be retained, and the Plateau shooting restriction area would be enlarged to 99,400 acres (Recreation Map 5).		Same as Alternative A.
VRM I – 10,300 ac VRM II – 21,400 ac VRM III – 205,700 ac VRM IV – 246,300 ac	VRM I – 0 ac VRM II – 0 ac VRM III – 308,000 ac VRM IV – 175,700 ac	VRM I – 0 ac VRM II – 187,200 ac VRM III – 219,800 ac VRM IV – 76,700 ac	VRM I – 0 ac VRM II – 54,100 ac VRM III – 298,600 ac VRM IV – 131,000 ac
Objectives: Wild & Scenic Rivers			
Protect outstandingly remarkable values associated with rivers and streams.			
Management Actions: Wild and Scenic Rivers:			
No W&SR suitability recommendation will be made. (Recreation Map 11).	Recommend 22 miles of the Snake River as suitable for inclusion in the W&SR system (Recreation Map 9).	Recommend 49 miles of the Snake River as suitable for inclusion in the W&SR system (Recreation Map 10).	Recommend four segments of the Snake River as not suitable for inclusion in the W&SR system.

3.2.17 Renewable Energy

Renewable energy is not an issue in the NCA. See Wind Energy in Alternatives Considered but not Analyzed.

3.2.18 Transportation

Rationale

Federal regulations require BLM to designate all public lands as either open, limited, or closed to off-highway vehicles (OHV) for the purpose of (1) meeting public demand for OHV activities, (2) protecting natural re-

sources, (3) providing for public health and safety, and (4) minimizing conflicts between user groups. Regulations pertaining to OHV planning include 43 CFR 8342; EO 11644, Use of Off-Road Vehicles on Public lands (37 FR 2877: Feb. 9, 1977); EO 11989, Off-Road Vehicles on Public lands (42 FR 26959h: May 25, 1977).

Standard Operating Procedures

OHV use is managed according to BLM Manual 8300.



**Description of Alternatives for
Transportation**

**Management Actions Common to All
Alternatives**

- The 53,000 acre OTA Impact Area is closed to public access for safety reasons, and therefore, is not reflected in the acreages identified as closed below.
- Route designations only apply to BLM managed lands and are not applicable to State and private lands or county roads. In addition, paved and graveled roads shown on Transportation Map 1 were identified as part of the base transportation system, and would remain open.

NCA Road Density

Existing routes in the NCA were inventoried in 2003. The current route density was analyzed using an ArcGIS 9 software program that identified natural breaks in the data that were used to divide the NCA into four route density categories.

- Low – <1 mile of road/square mile
- Medium – 1 to 2.5 miles of road/square mile
- High – 2.5 to 4.5 miles of road/square mile
- Very High – >4.5 miles of road/square mile

Route Designation Decision-making Process

Consistent with the FLPMA and with BLM regulations (43 CFR 8342.1), the Boise District has completed a route inventory and is completing an evaluation process to enable specific decisions on whether existing routes should be left open, closed, or limited in a special way. To do this, the BLM would utilize a systematic approach that evaluates inventoried routes for their current uses and conditions, and identifies potential conflicts with natural or cultural resources, and competing uses or users. This tool uses information provided by the BLM, which is then added to and validated by the public.

Hard surfaced, graveled routes and county roads are identified as part of the “base road network” and would remain open under all alternatives. As such, they will not be analyzed further in this process. Established ROW

may be limited to the use for which they were authorized.

Route Analysis (all routes not part of the base road network would be analyzed).

The RMP identifies areas as open, closed or limited in terms of type and timing of vehicle use. A route inventory (first phase of the analysis) was completed in March 2004.

The second phase of analysis includes the identification of potential conflicts with other resources and/or uses. The BLM ID team would identify routes that are:

- located within or near areas of significant resource values,
- routes or areas that receive specific types of use, and
- routes located within or adjacent to specially designated management areas.

These routes would then be analyzed, with input from the public, to determine if they are to remain open or have some restrictions based on type of use and potential impacts.

Route Evaluation Criteria

In order to make systematic and consistent decisions relative to specific route designations, criteria are needed to help BLM determine if the route(s) should be open, limited or closed.

The criteria are identified below; however, it is important to note that identification of specific resources or potentially conflicting uses does not automatically necessitate the closure of the route, but merely identifies the route for further in-depth analysis. As mentioned earlier, the range of alternatives for route designations will not be addressed through the RMP process but through a separate environmental analysis document.

The following questions would be answered during the analysis of each route. The different designations for a route under each alternative



would be based on the collective answers to these questions.

1. Is the route a paved or gravel surface, or an officially recognized ROW, an officially recognized County or State route, or officially recognized as part of a Federal planning document?
2. Is the continued use of the route likely to impact a State or Federal SSS or their habitat, cultural or other specially protected resource, or any special area designations?
3. Is the route a regional route that serves more than one planning sub-region, a principal means of connectivity within a sub-region, providing commercial or private property access?
4. Does the route contribute to recreational opportunities, route network connectivity, public safety, and/or public use access opportunities?
5. Can the commercial, private property or public use of the route be met by another

route within this route’s zone of influence?

6. Can impacts to identified sensitive resources be mitigated or avoided?
7. Would route closure or other mitigation address cumulative effects on other resources not identified as sensitive or specially protected?
8. Is this consistent with the RMP and the intent of the NCA-enabling legislation?

Once the above questions are answered, BLM would develop proposed route designations which would show routes as open, limited, or closed. The public would have an opportunity to review and provide comment on the route designation proposal and alternatives would be based on public comment.

The criteria identified in the following tables reflect those criteria that would be used to evaluate each route. The distances reflect a proximity that requires further analysis and do not necessarily mean a route must be closed if it is within the distance.

Transportation Table 3.1. Route Designation Criteria – Route Use.

Route Use/Need Access	Distance from route (ft)
Range Improvements – Commercial Ranching Facility	
Fence	330
Pipeline	330
Water Sites	330
Cattle Guard	150
Corral	300
Trailing Route	165
Administrative Use Sites	
Monitoring Site	330
Wildlife Resource (guzzlers, exclosures, etc.)	330
Vegetation Treatment (including rehab sites)	330
Weather Station	330
Utilities	
Cell Site/Communication Site	330
Electrical Transmission	330
Irrigation Canal	330
Gas Pipeline	330
Telephone	330
Mining	
Mining Claim	330
Mineral Material Site	330



Transportation Table 3.1. Route Designation Criteria – Route Use.

Route Use/Need Access	Distance from route (ft)
Tribal	
Treaty Areas	N/A
Traditional Use Areas (significant landform features such as caves, mesas, etc)	1320
Private Property	
Access	330
Military	
Facility/Training Site	330
Access	330
Public Use Site Access/Interpretive Panel	
Road Kiosk, Campground, Etc	330
Special Recreation Use Permits	
Commercial	1,320
Competitive	1,320
Large Group	1,320
RS 2477	
Assertion	N/A
Recognized Claim	N/A

Transportation Table 3.2. Route Designation Criteria – Concerns.

Environmental/Cultural Concerns	Distance from route (ft)
High Density Route Polygon (Habitat Fragmentation)	
Over 4 miles per square mile	N/A
303d Streams	
In, Along	165
Proximate (within ½ mile)	2,640
Raptors	
Nesting Area	1,650
Ground Nesting or Burrowing Raptors	1,650
Other Sensitive Wildlife Species	
Birds (Type 3) Habitat	660
Reptiles (Type 3) Habitat	660
Special Status Species (Plant and Animal)	
Types 1 and 2 in or through	2,640
Types 3-5 in or through	1,320
Riparian	
In, Along (within the banks or high water mark)	165
Cross stream or in the floodplain	165
Soils	
Route subject to erosion concerns *	N/A
Cultural Sites	
Proximate Register/Register Eligible/Undetermined	1,650
Through Register/Register Eligible/Undetermined	165
Special Recreation Management Area	
In or Through a Proposed	330



Transportation Table 3.3. Route Designation Criteria – Current Use.

Current Recreational Use/Users List	Type of Use *
Equestrian	Primary/Secondary
Mountain Biking	Primary/Secondary
OHV Hill Climbing	Primary/Secondary
Parking Area/Trailhead	Primary/Secondary
Snowmobile	Primary/Secondary
Special Recreation Use Permits	Primary/Secondary
Technical 4 WD/Rockcrawling	Primary/Secondary
Boating/Water/Fishing Access	Primary/Secondary
Camping	Secondary
Hiking – Popular Area	Primary/Secondary
Hunting – Popular Area	Primary/Secondary
Motorcycle Trials	Primary/Secondary
ATV and Motorcycle Trail Riding	Primary/Secondary
Mountain/Rock Climbing	Secondary
Public Use Site Access/Interpretive Panel	Primary/Secondary
Rockhounding	Primary/Secondary
Shooting	Primary/Secondary
Vistas, Sightseeing, Photography	Primary/Secondary
WSA Access	Secondary
Wildlife Watching	Primary/Secondary
Special Recreation Use Permit – Commercial	Primary/Secondary
Special Recreation Use Permit – Competitive	Primary/Secondary
Special Recreation Use Permit – Large Group	Primary/Secondary
Other	Primary/Secondary

*Primary = Route used for a specific activity
Secondary = Route used to get to a specific activity

Definitions:

Surfaced Road – Routes that have received substantial construction to the road bed including grading, crowning and drainage features (i.e., ditches, water turnouts, culverts, etc.), and emplacement of foreign surface material (i.e., asphalt, concrete, chip seal, road base material, etc.).

Right-of-Way (ROW) – A legal document that grants the holder the right to build, maintain and terminate a linear project across public land, wherein the U.S. retains the right to grant other compatible uses over and upon the same land. If a right-of-way grant does not specifically authorize access to the authorized facilities, the right of access by the grantee is assumed. To protect special resource values; however, BLM may restrict the access to a particular season(s) or by type of vehicle.

Water – Frequent Access – These features include pipelines and pipeline valves, water haul routes, wells, etc. that require frequent use, monitoring, or maintenance.

Water – Infrequent Access – These features include stock ponds, troughs, developed springs that require infrequent use, monitoring, or maintenance.

Representative Vegetation Community – Vegetation communities that are used as reference community types based on integrity and composition of vegetation, proximity to site potential and climax conditions; normally display a lack of anthropogenic disturbance and have received little or no livestock grazing.



Transportation – Alternative A

OHV designations would be as follows (Transportation Map 2):

- Open – 0 acres
- Limited – 431,200 acres
- Closed – 1,600 acres

In “limited” areas, motorized vehicles would be limited to designated routes, with no off-road cross-country travel. Until the route designation process is complete, all vehicles would remain on existing routes as identified in the 2004 BLM road inventory (Transportation Map 1).

Areas closed to motorized vehicles include:

- Halverson Bar – 1,150 acres extending from the Canyon/Ada County line upstream along the north side of the Snake River to approximately the USGS gauging station.
- TWMA – 320 acres.
- Gold Isle – 150 acres

The current route density in the NCA would be maintained as follows:

- Low (<1 mile/square mile) – 23%.
- Medium (1 – 2.5 miles/square mile) – 37 %
- High (2.5 – 4.5 miles/square mile) – 31%
- Very High (>4.5 miles/square mile) – 9%

Transportation – Alternative B

Access to the majority of the NCA on the current road network would continue, while providing additional areas for non-motorized activities.

The following OHV designations would be made (Transportation Map 3):

- Open – 0 acres
- Limited – 426,400 acres
- Closed – 6,400 acres

Areas closed to motorized vehicles would include:

- Halverson Bar – 1,150 acres.
- Guffey Butte – 2,000 acres – includes the majority of the butte.
- Wees Bar – 1,200 acres on the south side of the Snake River from approximately Con Shea Basin upstream to Priest Ranch.
- TWMA – 320 acres.
- Gold Isle – 150 acres
- Cove – 1,600 acres – includes land south of the “Bruneau Narrows,” east of Cove Recreation Site, north of State Highway 78, and west of the gravel road along the Oregon Trail South Alternate east of Cottonwood Campground.

The designated route network would continue access to most places in the NCA, but route densities would be modified to levels determined through the Route Designation process.

Up to 20 miles of non-motorized trails would be designated and signed to create a trail network.

Transportation – Alternative C

The management objective for this alternative would be to provide for non-motorized activities, and to minimize unnecessary routes while allowing continued access to the majority of the NCA.

The following OHV designations would be made (Transportation Map 4):

- Open – 0 acres
- Limited – 419,600 acres
- Closed – 13,200 acres

Areas closed to motorized vehicles would include:

- Halverson Bar – 1,150 acres
- Guffey Butte – 2,000 acres
- Wees Bar – 1,200 acres
- TWMA – 320 acres
- Gold Isle – 150 acres
- Cove – 1,600 acres



- Tick Basin – 1,900 acres on the north side of the Snake River from roughly Ball Point upstream to Tom Draw.
- Bigfoot Bar – 4,850 acres – includes lands on the north side of the Snake River from roughly Tom Draw upstream to the lower end of Bigfoot Bar.

The designated route network would continue access to most places in the NCA, but route densities would be modified to levels determined through the Route Designation process.

Up to 40 miles of non-motorized trails would be designated and signed to create a trail network.

Transportation – Alternative D – Proposed

Additional areas for non-motorized activities would be provided. Unnecessary routes would be reduced while allowing continued access to the majority of the NCA. The current Canyon Creek OHV area is included in the OHV limited designation, however the designation would not take effect for one year following the signing of the ROD to give a qualified entity or local government time to develop an acceptable management plan for the area. An acceptable management plan would include responsibility for management, maintenance

and supervision of the area and would prevent impacts from spreading outside of the area. If this does not occur within one year, OHV cross country travel would no longer be allowed.

The following OHV designations would be made (Transportation Map 5):

- Open – 0 acres
- Limited – 428,400 acres
- Closed – 4,400 acres

Areas closed to motorized vehicles would include:

- Halverson Bar – 1,150 acres
- Wees Bar – 1,200 acres
- TWMA – 320 acres
- Cove – 1,600 acres
- Gold Isle – 150 acres

The designated route network would continue access to most places in the NCA, but route densities would be modified to levels determined through the Route Designation process.

Up to 20 miles of non-motorized trails would be designated and signed to create a trail network.

Transportation Table 3.4. Objectives and Management Actions by Alternative for Transportation.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Provide motorized access to the majority of the NCA with limited non-motorized opportunities.	Provide motorized access to the majority of the NCA while reducing the number of unnecessary routes, and increasing non-motorized opportunities.	Provide motorized access to the majority of the NCA while minimizing unnecessary routes and providing a diversity of non-motorized opportunities.	Same as Alternative B
Management Actions:			
Vehicles would be restricted to designated routes in the Guffey Butte-Black Butte Archaeological District.			



Transportation Table 3.4. Objectives and Management Actions by Alternative for Transportation.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 2) Open – 0 acres Limited – 431,200 acres (limited to designated routes) Closed – 1,600 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 3) Open – 0 acres Limited – 426,400 acres (limited to designated routes) Closed – 6,400 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 4) Open – 0 acres Limited – 419,600 acres (limited to designated routes) Closed – 13,200 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 5) Open – 0 acres Limited – 428,400 acres (limited to designated routes) Closed – 4,400 acres
Current route density would be maintained as follows: Low – 23%. Medium – 37 % High – 31% Very High – 9%	The designated route network would continue access to most places in the NCA, but route densities would be modified to levels determined through the Route Designation process.	Same as Alternative B.	Same as Alternative B.

3.2.19 Utility and Communication Corridors (Land Use Authorizations)

Also see Lands and Realty Section 3.2.13.

Rationale

The oil and gas, utility, and communication industries have a continuing need to upgrade and increase their infrastructure developments. As such, BLM would continue to receive ROW applications for major developments, such as communication sites, electric transmission lines, oil and gas pipelines, and wind energy developments. Currently, one utility corridor crosses the extreme eastern corner of the NCA. Future ROW applications, however, may propose developments that have a greater impact on the NCA. It is important to identify areas where developments of this type may be compatible with the purposes for which the NCA was established, and where they would be unacceptable.

It should be noted that wind energy development has been determined to be incompatible with the conservation, protection, and enhancement of raptor populations and habitats,

and as such, would not be authorized in the NCA.

Standard Operating Procedures

- Land containing significant cultural resources would be protected during any use authorization project installation or during use.
- Tribal interests and public access needs would be considered in all utility and communication site grants.
- Important sensitive species and other wildlife habitat would be protected and monitored if a land use authorization were granted.
- VRM I and II management areas would not be available for utility corridors

Description of Alternatives for Utility and Communication Corridors

Management Actions Common to All Alternatives

- Land use authorizations would enhance or at least not adversely affect raptor populations or their habitat



- All land use authorizations would require weed control measures.
- To protect occupied habitat SSS adjacent to construction activities, temporary or permanent project fencing would be required prior to the implementation of ground disturbing activities.
- New, renewing or amending ROW holders or other related permit holders would be required to reseed disturbed areas with perennial vegetation. In occupied and suitable slickspot peppergrass habitat, they would be required to conform to applicable conservation measures from the slickspot peppergrass CA (Appendix 12).
- Surface disturbing activities and/or human developments would be located with an appropriate buffer to protect occupied sensitive plant habitat.
- Surface disturbing activities would not be authorized in areas affecting SSS unless the action could be appropriately mitigated.

Utility and Communication Corridors – Alternative A

No new utility corridors would be designated and to the extent practical, all major utility transportation systems would be located within the existing utility corridor.

The existing 43,000-acre avoidance area (Lands Map 3) would continue to be managed as such. The compatibility of ROW applications outside the avoidance area would be evaluated on a site-specific basis. Surface disturbing activities would not be authorized in areas affecting SSS unless the action could be appropriately mitigated. The five existing communication sites would be maintained with new communication site proposals evaluated on a case-by-case basis.

Utility and Communication Corridors – Alternative B

An emphasis on habitat protection and restoration would be provided with limited development. Energy related ROWs would be encouraged, consistent with the National Energy Policy. A utility ROW corridor (Lands Map 2)

north of, and parallel with, the Snake River would be designated. This new corridor would not only streamline the ROW application process but would confine major utilities to a designated area.

To protect the scenic values of the Snake River Canyon and the nearby Oregon Trail (Lands Map 4) a 105,000-acre avoidance area would be designated.

Existing communication sites would be retained and new sites would be limited in number with an emphasis on co-location of communication site users.

Utility and Communication Corridors – Alternative C

BLM would maintain the existing utility ROW corridor, and would provide potential for a new ROW corridor south of the Snake River Canyon and roughly parallel with Highway 78. The establishment of a new corridor (Lands Map 2) would streamline ROW application processing, and would confine major transmission ROW to a designated area.

A 159,000-acre avoidance area would extend from Guffey Bridge to Hammett to protect the scenic values of the Snake River Canyon and nearby Oregon Trail (Lands Map 5).

Utility and Communication Corridors – Alternative D – Proposed

BLM would maintain the existing utility ROW corridor, and would provide for a new ROW corridor south of the Snake River Canyon and roughly parallel with Highway 78 (Lands Map 2). This corridor would differ from Alternative C in that the corridor would run parallel with and approximately two miles north of the Saylor Creek Bombing Range to eliminate impacts to existing air space restrictions. The establishment of a new corridor would be consistent with the WVEC Study that will analyze the future energy transmission needs across the west. This would streamline ROW application processing, and would confine major transmission ROW to a designated area.



The avoidance area would be the same as Alternative A. The compatibility of ROW applications outside the avoidance area would be evaluated on a site-specific basis. Surface disturbing activities would not be authorized in

areas affecting SSS unless the action could be appropriately mitigated. The five existing communication sites would be maintained with new communication site proposals evaluated on a case-by-case basis.

Utility and Communication Corridor Table 3.1. Objectives and Management Actions by Alternative for Utility and Communication Corridors.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives: ROW applications for utility developments would be compatible with the purposes for which the NCA was established, emphasizing habitat protection with economic development.			
Management Actions:			
The existing utility corridor would be retained and no new utility corridors would be designated. All major utility transmission systems would be located within the existing utility corridor.	The existing utility corridor would be retained and a new utility corridor would be provided north of, and parallel with the Snake River (Lands Map 2).	The existing utility corridor would be retained and a new utility corridor would be provided south of the Snake River Canyon and roughly paralleling Highway 78 (Lands Map 2).	The existing utility corridor would be retained and a new utility corridor would be provided south of the Snake River Canyon and roughly paralleling Highway 78 (Lands Map 2).
The five existing communication sites would be retained with new authorizations co-located in existing areas.			The five existing communication sites would be retained and new locations would be considered on a case-by-case basis.
The existing 43,000-acre avoidance area (Lands Map 3) would continue.	The existing avoidance area would be enlarged to 105,000 acres (Lands Map 4).	A 159,000-acre avoidance area would extend from Guffey Bridge to Hammett (Lands Map 5).	Same as Alternative A

3.2.20 Wildland Fire Ecology and Management

Rationale

In order to conserve a dwindling ecosystem component, remnant shrub habitat would have the highest priority for protection after human life and property, including the WUI.

All wildland fires would receive an AMR, which allows for a full range of management actions ranging from full, aggressive, and costly suppression tactics, to a confine or contain strategy using existing barriers, predicted weather changes, or minimal suppression activities.

Wildland Fire Use is the practice of using wildland fire for resource benefit, while limiting the cost of fire suppression (USDA& USDI 2003). Because of the extensive shrub loss that has occurred in the NCA, wildland fire use projects would not be used. AMR would continue to be used first and foremost to protect life and property while emphasizing firefighter and public safety. AMR is adaptable and appropriate in providing for a broad range of responses based on hazards, threats, resource management objectives, values at risk, tactical concerns, etc.



Standard Operating Procedures

- Extinguish fires with the least possible surface disturbance.
- In order to minimize risk to firefighters and to reduce wildland fire suppression costs, allow wildland fires to burn to natural fuel breaks where and when appropriate.
- Follow management direction in the District Oregon Trail Management Plan and the BOP NCA Cultural Resource Management Plan
- Conduct Fire suppression and fuels management activities in accordance with conservation agreements and recovery plans.
- Use Minimum Impact Suppression Tactics (MIST) when appropriate to mitigate potential adverse effects of fire suppression on values at risk. Areas where MIST may be used include slickspot peppergrass management areas, cultural sites such as the Oregon Trail, areas with highly erosive soils, and suitable wild and scenic river corridors.
- Minimize the spread of annual grasses and other invasive non-native species.
- Where possible, equipment used for suppression and prescribed fire would be cleaned before arriving on-site; vehicle wash stations set up in base camps. Staging areas and fire camps should be located on sites free of invasive non-native species.
- Support tribal trust obligations with fire management activities or otherwise address Tribal interests.
- Fuels projects would be designed to protect active raptor nests with an appropriate species specific buffer.
- Pre- and post-burn treatments would be used to reduce the overall threat of invasive non-native species establishment and spread
- Support fire hazard reduction efforts to reduce fire hazards in and around WUI areas, and in areas of high resource value.
- The IDARNG would be responsible for providing initial attack on all fires within the OTA.

Description of Alternatives for Wildland Fire Ecology and Management

Management Actions Common to All Alternatives

- Fire suppression priorities would be as follows:
 1. Threats to human life and structures in the WUI
 2. Remnant shrub habitat, slickspot peppergrass sites, and habitat restoration projects.
 3. Fire-altered areas dominated by annual grasses (cheatgrass)
- Habitat restoration would improve the overall health of the vegetation and return the Fire Regime Condition Classes (FRCC) closer to historic states. To this end, native and adapted non-native species would be seeded with low soil-disturbance techniques to meet the habitat needs of raptors and their prey base, reduce invasive species and provide improved fire resistance. Mechanical, chemical, and biological treatments, as well as prescribed fire (when conducted under appropriate conditions), would be used to help restore native plant communities and reduce the size and occurrence of future wildfires.
- FRCC classifications would be reassessed every ten years or as changes vegetation conditions warrant.
- Fire suppression in slickspot peppergrass management areas will be in conformance with the slickspot peppergrass CA or amendments thereto.

Wildland Fire Ecology and Management – Alternative A

Over the long-term approximately 50,000 additional acres of remnant shrub habitat could burn if climate and fire ignition frequency trends continue. Hazardous fuels would be reduced on about 500 acres annually, including greenstrips, firebreaks, reseedings, weed treatments, etc. About 136 miles of existing fuel breaks would be maintained or improved to aid fire suppression efforts. Remnant sagebrush habitat supports a substantial amount of



the remaining slickspot peppergrass populations.

Wildland Fire Ecology and Management – Alternative B

Over the long-term approximately 30,000 acres of additional remnant shrub habitat would burn if current climate and fire ignition trends continue, and if the fuels reduction and habitat restoration described in this alternative are effective in reducing fire sizes. The acres of restored shrub habitat would be increased. A greater emphasis would be placed on protecting shrub communities from wildfire. It is expected that up to 50,000-acres of degraded habitat would be restored with an emphasis toward reducing the fire return intervals and improving SSS and small mammal habitats. An additional 70,000 acres would be treated through hazardous fuels reduction projects, including greenstrips, firebreaks, reseedings, weed treatments, etc. About 144 miles of fuel breaks would be maintained or improved to aid fire suppression efforts. Fuels projects would be accomplished using a combination of prescribed fire, chemical, biological (including grazing), and mechanical treatments. This action would include creating strategically located fuel breaks to protect high-value resources, such as existing shrub communities and WUI areas.

Campfires would be restricted to improved campsites.

Wildland Fire Ecology and Management – Alternative C

It is expected that up to 130,000 acres of degraded habitat would be restored, which would result in increasing the interval between fires and enhancing habitat for SSS and small mammals. An additional 100,000 acres would be treated through hazardous fuels reduction projects, including greenstrips, firebreaks, reseedings, weed treatments, etc. About 148 miles of fuel breaks would be maintained or improved to aid fire suppression efforts. Fuels projects would be accomplished using a combination of prescribed fire, chemical, biological (including grazing), and mechanical treatments. The number of acres burned would continue to average around 5,000 acres a year; however, net shrub loss would be limited to 15,000 acres over the long-term due to enhanced protection of remnant shrub stands and restoration efforts in other areas that would reduce fire size over the long-term.

Campfires would be restricted as described in Alternative B.

Wildland Fire Ecology and Management – Alternative D – Proposed

Same as Alternative C.

Wildland Fire Ecology and Management Table 3.1. Objectives and Management Actions by Alternative for Wildland Fire Ecology and Management.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objective:			
Protection of native plant communities would be one of the highest priorities for fire suppression.			
Common to All Management Actions:			
When setting specific suppression objectives the following criteria would be used in the event of multiple ignitions: (1) suppress wildland fires that threaten life and property in the WUI, (2) suppress fires that threaten important habitat, such as shrub communities, and (3) suppress fires in other areas (i.e., cheatgrass, crested wheat).			
The NCA would be designated as “not appropriate” for wildland fire use for resource benefit.			
The use of surface disturbing equipment would be limited during fire suppression on areas containing significant natural or cultural values, including native shrub communities, the Oregon Trail, and identified paleontological resources.			
All burned areas would be evaluated for emergency stabilization and rehabilitation with the goal of restoring shrub and perennial grass communities.			



Wildland Fire Ecology and Management Table 3.1. Objectives and Management Actions by Alternative for Wildland Fire Ecology and Management.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Where appropriate, prescribed fire, herbicides and mechanical treatments would continue to be used on emergency stabilization and rehabilitation and restoration projects.			
Restoration and emergency stabilization and rehabilitation efforts would be applied with the intent of improving the existing fire regime condition class (FRCC).			
To protect slickspot peppergrass and its habitat from wildfires, BLM would implement the following actions consistent with the slickspot peppergrass CA: (1) protection of occupied slickspot peppergrass habitats would be a priority over the surrounding management area, (2) BLM would evaluate, create, and maintain fuel breaks around areas where frequent fires threaten occupied and suitable slickspot peppergrass habitats, and (3) aggressive fire suppression tactics would be used when occupied slickspot peppergrass habitats are threatened.			
Management Actions:			
Maintain 136 miles of existing fuel breaks (Vegetation Map 7).	Maintain existing fuel breaks and construct approximately 8 miles of fuel breaks (Vegetation Map 7).	Maintain existing fuel breaks and construct approximately 12 miles of fuels (Vegetation Map 7).	
10,000 acres of degraded small mammal habitat would be restored.	Approximately 50,000 targeted acres of degraded small mammal habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal habitat would be restored.	
In addition to habitat restoration projects, 10,000 acres of annual grasslands would be treated through fuels reduction/management projects.	In addition to habitat restoration projects, approximately 70,000 acres would be treated through fuels reduction/management projects.	In addition to habitat restoration projects, approximately 100,000 acres of annual grasslands would be treated through fuels reduction/management projects.	
There would be no restrictions on open campfires except during emergency fire situations.	Campfires would be restricted to established (improved) campsites.		
Grazing would be used on a site-specific basis for hazardous fuel reduction and maintenance of fuels management projects.			

3.2.21 Special Designations
See Recreation Section 3.2.16.

3.2.22 Social and Economic Conditions
3.2.22.1 Economic Conditions

Rationale

The FLPMA directs BLM to manage public lands for multiple use purposes. This mandate, however, was modified by the 1993 NCA-

enabling legislation (PL 103-64), which requires BLM to provide for a multitude of uses, so long as each use is compatible with the purposes for which the NCA was established. The legislation, however, specifically withdrew the area from certain activities, including: (1) entry, appropriation, or disposal under the public land laws (Desert Land Entry, Carey Act, State of Idaho Admissions Act,



etc.), (2) locatable mineral disposal, (3) mineral and geothermal leasing, and (4) mineral material disposal, with the exception that mineral materials could continue to be made available from existing sites to the extent compatible with the purposes for which the NCA was established.

Description of Alternatives for Economic Conditions

Management actions that have a socio-economic impact come from the various resource programs and there are no specific management actions developed specifically for socio-economic development.

Economics Table 3.1. Objectives and Management Actions by Alternative for Social and Economic Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Provide opportunities for utilization of natural resources at the current levels.	Expand restoration while providing increased opportunities for utilization of natural resources.	Enhanced restoration is a priority.	Enhanced restoration while protecting long-term social and economic opportunities at the expense of short- and mid-term economic opportunities.
Management Actions:			
Grazing levels would be determined through the S&G process.	Allocation of AUMs would be determined through the S&G process and would be based on achieving other resource objectives associated with the purposes of the NCA.	There would be no public land grazing except for fuels and weeds management purposes.	Same as Alternative A.
Authorize mineral material extraction from compatible active mineral sites. Inactive sites could be reopened for operation if compatible (45 existing sites would continue to be made available of which 16 are currently being used).	Authorize mineral material extraction from compatible active mineral material sites if adequate material is present; however, inactive sites would not be reopened. (16 currently active mineral sites would be available)		Same As Alternative A.
Current types, levels, seasons, locations, etc. of military maneuver training would continue (IDARNG Map 2).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 20,400 acre maneuver training area would be made available (IDARNG Map 3).	Off-road vehicle maneuver training would be restricted to designated routes in 18,400 acres and 3,900 acres would be removed from the OTA (IDARNG Map 4).	Off-road vehicle maneuver training would be restricted to designated routes in 22,300 acres and an additional 4,100 acres would be made available for training (IDARNG Map 5).



Economics Table 3.1. Objectives and Management Actions by Alternative for Social and Economic Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Approximately 10,000 targeted acres of degraded small mammal and big game habitat would be restored.	Approximately 50,000 targeted acres of degraded small mammal and big game habitat would be restored.	Approximately 130,000 targeted acres of degraded small mammal and big game habitat would be restored.	
In addition to habitat restoration projects, approximately 10,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 70,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	In addition to habitat restoration projects, approximately 100,000 acres would be treated through a combination of chemical, biological, and mechanical fuels management projects.	
The existing utility corridor would be retained and no new utility corridors would be designated. All major utility transmission systems would be located within the existing utility corridor.	The existing utility corridor would be retained and a new utility corridor would be provided north of, and parallel with the Snake River (Lands Map 2).	The existing utility corridor would be retained and a new utility corridor would be provided south of the Snake River Canyon and roughly paralleling Highway 78 (Lands Map 2).	Same as Alternative A.
The five existing communication sites would be retained with new authorizations co-located in existing areas.			The five existing communication sites would be retained and new locations would be considered on a case-by-case basis.
The NCA boundary would be unchanged.	Recommend to Congress to realign the NCA boundary to areas more easily identified on the ground (Lands Map 6).		Recommend to Congress to realign the NCA boundary to areas more easily identified on the ground (Lands Map 7).



Economics Table 3.1. Objectives and Management Actions by Alternative for Social and Economic Resources.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Expand existing developed sites as needed (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.	Additional recreation facilities would be developed at Three Pole and Initial Point (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.	Additional recreation facilities would be developed at Celebration Park Annex, Three Pole, Guffey Butte, and Initial Point (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.	Additional recreation facilities would be developed at Celebration Park Annex, Three Pole, Guffey Butte, Black Butte, and Initial Point (Recreation Map 3). The rest of the NCA would remain in an undeveloped condition to provide for dispersed recreational opportunities and experiences.
Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 2) Open – 0 acres Limited – 431,200 acres (limited to designated routes) Closed – 1,600 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 3) Open – 0 acres Limited – 426,400 acres (limited to designated routes) Closed – 6,400 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 4) Open – 0 acres Limited – 419,600 acres (limited to designated routes) Closed – 13,200 acres	Vehicle access would be managed according to the following OHV Area Designations (Transportation Map 5) Open – 0 acres Limited – 428,400 acres (limited to designated routes) Closed – 4,400 acres

3.2.22.2 Environmental Justice

Environmental Justice will not be affected by any of the RMP Alternatives. See Social and Economics Sections 2.2.22 in Chapter 2, Affected Environment.

3.2.22.3 Hazardous Materials

Rationale

BLM is committed to reducing hazardous material situations on public lands. Federal agencies are required to comply with all Federal and State laws, regulations and policies regarding hazardous materials on public lands. These include:

- Resource Conservation and Recovery Act (RCRA), as amended 1976/1980 (42 USC 6901f).

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 1980 (42 USC 9601f).
- Federal Water Pollution Control Act (Clean Water Act) 1987 (33 USC 1251-1387).
- Clean Air Act, as amended 1977/1990 (42 USC 7418).
- Federal Land Policy and Management Act, as amended 1976 (43 USC 1701f).

Standard Operating Procedures

- Utilize educational programs for public awareness of the impacts of hazardous materials on health, safety, and the environment.
- Law enforcement would be utilized for investigation and apprehension, which would aid in the cost recovery phase of these actions.



- All authorizations providing for the use or storage of, or the potential for, hazardous materials would include special stipulations to assure human and natural resource safety.
- All hazardous material incidents would be responded to in a timely and efficient manner that provides for human safety and environmental protection.

alternatives in accordance with laws, regulations, and policies. Under all alternatives, consistent with DOI policy, the OTA Impact Area would be withdrawn to the DoD. The withdrawal is proposed due to past and current military actions at the site and the potential liabilities associated with those actions. This is particularly true due to the presence of unexploded ordnance associated with military activity.

Description of Alternatives for Hazardous Materials

The hazardous materials program would be managed in the same general manner in all

Hazardous Materials Table 3.1. Objectives and Management Actions by Alternative for Hazardous Materials.

Alternative A	Alternative B	Alternative C	Alternative D Proposed
Objectives:			
Authorize and manage land uses to reduce the occurrence and severity of hazardous material incidences on public lands and to minimize human health threats and natural resource risks from hazardous material contamination and associated actions.			
Management Actions:			
Protect human health and safety and prevent environmental damage from hazardous materials.			
Recommend to Congress, through the Secretary of Interior, that the Impact Area of the OTA be withdrawn to the DoD, with the IDARNG having administrative authority for all uses in the area including livestock grazing.			

3.3 SUMMARY OF IMPACTS

The following table provides a summary of impacts of the proposed management actions

for each of the four alternatives. The following table was developed from the Environmental Consequences Chapter 4.

Impacts Table 3.1. Summary of Impacts.

3.3.1 Air Quality	
All Action Alternatives	Overall, there would be a slight short-term adverse impact on air quality associated with surface disturbing activities. The potential exists for negligible, localized, long-term adverse impacts where IDARNG activities are routinely conducted or where BLM restoration activities disturb the soil and site stabilization takes a number of years. Since the air resource program would be managed in accordance with laws, regulations, and policies, with the goal of meeting current standards, all alternatives would meet the program objectives. The air quality objective would be met.



Impacts Table 3.1. Summary of Impacts.

3.3.2 Cultural and Tribal Resources	
Alternative A	<p>Special stipulations on land use authorizations, voluntary compliance, and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. However, with the increasing population and associated demands for use of the NCA, as well as only two developed recreation facilities, there would be increased potential for moderate adverse impacts to cultural resources.</p> <p>The objective and DFC would be met.</p>
Alternative B	<p>Special stipulations on land use authorizations, voluntary compliance, application of SOPs and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. Closures to livestock grazing or motorized vehicle use in the river corridor would provide moderate long-term benefits at the local level. There would be slight to moderate adverse impacts from surface disturbing activities, changes in recreation management and the low level of VRM protection at the landscape level. The avoidance area would provide moderate protection from major utility development; however, development within the utility corridor would result in moderate long-term localized adverse impacts. Vegetation treatments would provide slight short-term adverse impacts and slight to moderate long-term benefits to traditional cultural properties.</p> <p>The objective and DFC would be met.</p>
Alternative C	<p>Special stipulations on land use authorizations, voluntary compliance, application of SOPs and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. Closures to livestock grazing or motorized vehicle use in the river corridor would provide moderate long-term benefits at the local level. There would be a moderate level of adverse impacts from surface disturbing activities and changes in recreation management landscape-wide. The avoidance area would provide moderate protection from major utility development; however development within the utility corridor could have long-term moderate adverse impacts at the local level. Vegetation treatments would provide moderate short-term adverse impacts and moderate to high long-term benefits to traditional cultural properties.</p> <p>The objective and DFC would be met.</p>
Alternative D Proposed	<p>Special stipulations on land use authorizations, voluntary compliance, application of SOPs and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. Closures to livestock grazing or motorized vehicle use in the river corridor would provide moderate long-term benefits at the local level. There would be a moderate level of adverse impacts from surface disturbing activities, and changes in recreation management and the low level of VRM protection landscape-wide. Vegetation treatments would provide moderate short-term adverse impacts and moderate to high long-term benefits to traditional cultural properties.</p> <p>The objective and DFC would be met.</p>



Impacts Table 3.1. Summary of Impacts.

3.3.3 Fish and Wildlife	
Alternative A	<p><u>Riparian/Wetland/Open Water Species</u> – Habitat restoration and areas closed to motorized vehicles would have slight to moderate localized benefits primarily for riparian species. Implementation of S & G would have moderate benefits at the landscape level for riparian and aquatic species. Overall, there would be slight improvement to riparian and wetland habitats.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements and vegetation treatments would provide slight to moderate localized benefits over the long-term. Implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Loss of wildlife habitat due to limited vegetation treatments, IDARNG activities and fire would have moderate adverse impacts at the landscape scale. Overall, wildlife habitat would be lost because the rate of habitat treatments would not keep up with the rate of habitat loss.</p> <p>The objective and DFC would be met for riparian, wetland and open water species. The objective and DFC would not be met for upland wildlife because habitat loss would exceed restoration.</p>
Alternative B	<p><u>Riparian/Wetland/Open Water Species</u> – Areas closed to motorized vehicles would have moderate localized benefits primarily for riparian species. Intermediate levels of habitat restoration implementation of S&Gs would have moderate benefits at the landscape level for riparian and aquatic species. Overall, riparian and wetland habitats would improve.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements, consolidation of ownership, and vehicle closures would provide slight to moderate localized benefits over the long-term. Vehicle restrictions, implementation of S&Gs, application of the route designation criteria and moderate levels of vegetation treatments would provide slight to moderate benefits at the landscape level. There would be large blocks of continuous shrub habitat in Management Areas 1 and 2 over the long-term. Soil disturbing activities including concentrated livestock use, utility development, IDARNG activities, and fire would have slight to moderate adverse impacts at the local level and in much of Management Area 3. The rate of habitat restoration would exceed the wild-fire-related loss of remnant shrub habitat. Overall, wildlife habitat would be maintained or moderately improved.</p> <p>The objective and DFC would be met.</p>
Alternative C	<p><u>Riparian/Wetland/Open Water Species</u> – Areas closed to motorized vehicle use and developed recreation sites would have moderate long-term localized benefits primarily for riparian species. Substantial habitat restoration and removal of livestock would be moderately to highly beneficial at the landscape level for riparian and aquatic species. The majority of riparian areas would be treated resulting in large blocks of continuous riparian habitat. Overall, the impacts would be highly beneficial at the landscape level.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements would provide slight localized benefits over the long-term. Substantial levels of vegetation treatments, motorized vehicle use restrictions, implementation of route designation criteria, and removal of livestock would be moderately to highly beneficial at the landscape level. All degraded upland habitats outside of the OTA would be treated, resulting in large blocks of con-</p>



Impacts Table 3.1. Summary of Impacts.

	<p>tinuous shrub habitat over the long-term. Utility development and fire would have slight to moderate adverse impacts to wildlife and their habitat at the local scale. IDARNG activities and removal of livestock from annual grasslands would have slight short-term adverse impacts at the landscape scale. Restoration would exceed the loss of habitat due to wildfire or weed infestations. Overall, the impacts would be highly beneficial at the landscape level.</p> <p>The objective and the DFC would be met.</p>
Alternative D Proposed	<p><u>Riparian/Wetland/Open Water Species</u> – Closures to motorized vehicles and developed recreation sites would have moderate localized benefits primarily for riparian species. Substantial habitat restoration and changes in livestock management would be moderately to highly beneficial at the landscape level for riparian and aquatic species. The majority of riparian areas would be treated resulting in large blocks of continuous riparian habitat. Overall, the impacts would be highly beneficial at the landscape level.</p> <p><u>Upland Species</u> – Closures to motorized vehicles and developed recreation sites would have moderate local benefits primarily for riparian species. Substantial habitat restoration and changes in livestock management would be moderately to highly beneficial at the landscape level for riparian and aquatic species. The majority of riparian areas would be treated resulting in large blocks of continuous riparian habitat. Overall, the impacts would be highly beneficial at the landscape level.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements would provide slight localized benefits over the long-term. Implementation of S&Gs and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Vegetation treatments would be highly beneficial at the landscape level. All degraded upland habitats outside of the OTA would be treated resulting in large blocks of continuous shrub habitat over the long-term. The loss of wildlife habitat due to fire would have moderate adverse impacts at the local scale. Soil disturbing activities including concentrated livestock use, IDARNG activities, and fire would have slight to moderate long-term adverse impacts at the local level. Overall, impacts would be moderately to highly beneficial at the landscape level.</p> <p>The objective and DFC would be met.</p>
3.3.4 Geology	
All Action Alternatives	No impacts. See Section 2.2.4 in Affected Environment Chapter 2.
3.3.5 Paleontology	
All Action Alternatives	No impacts. See Section 2.2.5 in Affected Environment Chapter 2.
3.3.6 Special Status Species	
3.3.6.1 Special Status Animals	
Alternative A	<p><u>Riparian/Wetland/Open Water Species</u> – Fish and wildlife management actions and habitat restoration could have slight adverse local impacts over the short-term to SSA including Idaho springsnails; however, these actions and vehicle closures would have slight to moderate localized benefits over the long-term. Implementation of S&Gs could have slight to moderate benefits at the landscape level for riparian and aquatic</p>



Impacts Table 3.1. Summary of Impacts.

	<p>species. Habitat for riparian and open water species would be maintained at the landscape level, but enhanced only at the local level.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements, land consolidation, and vegetation treatments would provide slight to moderate localized benefits over the long-term. Implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. IDARNG activities, a lack of adequate recreation facilities, the loss of SSA habitat due to limited vegetation treatments and fire would have slight to moderate adverse impacts at the landscape scale. The amount of upland habitat loss would exceed the amount of habitat maintained or enhanced.</p> <p>The objective for SSAs and DFC for Fish and Wildlife would not be met because of the net loss of shrub habitat and limited riparian habitat restoration.</p>
Alternative B	<p><u>Riparian/Wetland/Open Water Species</u> – Fish and wildlife management actions could have slight adverse local impacts over the short-term to SSA including Idaho springsnails, but these actions and vehicle closures would have slight to moderate local or landscape level benefits for Idaho springsnails, bald eagles, and yellow-billed cuckoos over the long-term. Implementation of S & G and vegetation treatments would have slight to moderate benefits at the landscape level for riparian and aquatic species. Overall, SSA habitat would be maintained or moderately improved.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements, restrictions on IDARNG activities in shrub habitats, grazing closures, and recreation developments would provide slight to moderate localized benefits over the long-term. Land consolidation, implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Vegetation treatments could have slight to moderate localized adverse impacts over the short-term, but would have moderate benefits at the landscape level over the long-term. IDARNG off-road maneuver training, a lack of adequate recreation facilities, and the loss of SSA habitat due to fire and noxious weeds would have slight to moderate adverse impacts at the landscape scale. Overall, impacts would be slight to moderately adverse at the landscape level primarily in Management Area 3 and in the OTA over the long-term.</p> <p>The objective for SSA and DFC for Fish and Wildlife would be met for riparian, wetland and open water species but only partially met for upland species because upland habitat improvements would only slightly exceed habitat loss.</p>
Alternative C	<p><u>Riparian/Wetland/Open Water Species</u> – Fish and wildlife management actions could have slight adverse local impacts over the short-term to SSA including Idaho springsnails, but these actions and vehicle closures would have slight to moderate local or landscape level benefits for Idaho springsnails, bald eagles, and yellow-billed cuckoos over the long-term. Vegetation treatments and removal of livestock would be moderately to highly beneficial at the landscape level for riparian and aquatic species. Overall, the impacts would be highly beneficial at the landscape level.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements and recreation developments would result in slight to moderate localized benefits and restrictions on IDARNG activities in shrub habitats would be moderately or highly beneficial for remnant shrub stands over the long-term. Land consolidation and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Removal of live-</p>



Impacts Table 3.1. Summary of Impacts.

	<p>stock would be highly beneficial to SSA in perennial communities and slightly beneficial to SSA in annual communities over the long-term. Vegetation treatments could have slight to moderate localized adverse impacts over the short-term, but would be highly beneficial at the landscape level over the long-term. IDARNG off-road maneuver activities and the loss of SSA habitat due to fire would have slight to moderate adverse impacts at the landscape and local levels respectively. However, the overall impacts would be highly beneficial at the landscape level over the long-term.</p> <p>The objective for SSA and DFC for Fish and Wildlife would be met for riparian, wetland, open water and some upland species. The objective and DFC would not be met for shrub dependent species in non-shrub areas in the OTA and fuels treatment areas outside the OTA that would not be restored.</p>
<p>Alternative D Proposed</p>	<p><u>Riparian/Wetland/Open Water Species</u> – Fish and wildlife management actions could have slight adverse local impacts over the short-term to SSA including Idaho springsnails. Fish and Wildlife management actions and vehicle closures would have slight to moderate local or landscape level benefits for SSAs including bald eagles and yellow-billed cuckoos over the long-term. Implementation of S & G and vegetation treatments would have slight to moderate benefits at the landscape level for riparian and aquatic species. Overall, the impacts would be highly beneficial at the landscape level.</p> <p><u>Upland Species</u> – Wildlife habitat enhancements, restrictions on IDARNG activities in shrub habitats, grazing closures, and recreation developments would provide slight to moderate localized benefits over the long-term. Land consolidation and implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Vegetation treatments could have slight to moderate localized adverse impacts over the short-term, but would be highly beneficial at the landscape level over the long-term. IDARNG off-road maneuver activities and the loss of SSA habitat due to fire would have slight to moderate adverse impacts at the landscape and local levels respectively. Overall, the impacts would be moderate to highly beneficial at the landscape level.</p> <p>The objective for SSA and DFC for Fish and Wildlife would be met for riparian, wetland, open water and some upland species. The objective and DFC would not be met for shrub dependent species in non-shrub areas in the OTA and fuels treatment areas outside the OTA that would not be restored.</p>
<p>3.3.6.2 Special Status Plants</p>	
<p>Slickspot Peppergrass</p>	
<p>Alternative A</p>	<p>Land consolidations, restrictions on surface disturbing activities, and vegetation treatments would provide slight to moderate localized benefits over the long-term. At the landscape level, implementation of the CA would be moderately beneficial, and giving fire suppression priority to slickspot peppergrass management areas and constructing and maintaining fuel breaks would be moderately to highly beneficial over the long-term at the landscape level. Vegetation treatments could have slight adverse localized impacts to suitable habitat in the short-term and would have slight to moderate long-term benefits at the local level. A lack of adequate recreation facilities could have slightly adverse localized impacts. IDARNG training could have slight to moderate adverse impacts in the OTA. Overall, populations could benefit moderately but species viability would not be ensured.</p>



Impacts Table 3.1. Summary of Impacts.

	<p>The objective and the specific SSP DFC identified for Upland Vegetation (Section 4.2.8) would not be met because populations would remain isolated.</p>
<p>Alternative B</p>	<p>Land consolidation, restrictions on surface disturbing activities and livestock grazing in Sandberg bluegrass areas, and development of a recreation site would provide slight to moderate localized benefits over the long-term. At the landscape level, implementation of the CA would be moderately beneficial at the short- and long-term. Giving fire suppression priority to slickspot peppergrass management areas and constructing and maintaining fuel breaks would be moderately to highly beneficial at the landscape level. Vegetation treatments could have slight adverse localized impacts in the short-term to suitable habitat and would have moderate long-term benefits at the landscape level. Utility development and increased recreational use around Initial Point could have slight adverse localized impacts over the short- and long-term. IDARNG training could have slight adverse impacts in the local level OTA over the short-and long-term.</p> <p>The objective and specific SSP DFC under Upland Vegetation would be met in the western portion of Management Area 1 and the eastern portion of Management Area 2, but would largely be unmet in the remainder of the NCA. The limited degree of vegetation treatments would only slightly exceed the amount of habitat loss.</p>
<p>Alternative C</p>	<p>Restrictions on surface disturbing activities and development of recreation sites would provide slight to moderate localized benefits over the long-term. At the landscape level, implementation of the CA and changes in vehicle management would be moderately beneficial and consolidating ownership, removing livestock, giving fire suppression priority to slickspot peppergrass management areas, and constructing and maintaining fuel breaks would be moderately or highly beneficial at the landscape level. Vegetation treatments would have slight adverse localized impacts to suitable habitat in the short-term and would be highly beneficial at the landscape level over the long-term. Utility development and increased recreational use around Initial Point could have slightly adverse localized impacts over the long-term. Restrictions on IDARNG training would be moderately to highly beneficial at the local level, but increased training levels in non-shrub areas could have slight to moderate adverse impacts at the local level in the OTA over the short- and long-term.</p> <p>The objective would be met. The specific SSP DFC under Upland Vegetation (Section 4.2.8.) would be met except for suitable habitat in non-shrub areas of the OTA where surface disturbing activities would occur.</p>
<p>Alternative D Proposed</p>	<p>Restrictions on surface disturbing activities and development of recreation sites would provide slight to moderate localized benefits over the long-term, but increased recreational use around Initial Point could have slightly adverse localized impacts. At the landscape level, implementation of the CA would be moderately beneficial and consolidating ownership, giving fire suppression priority to peppergrass management areas and constructing and maintaining fuel breaks would be moderately to highly beneficial over the short-and long-term. Vegetation treatments could have slight adverse localized impacts to suitable habitat in the short-term and would be highly beneficial at the landscape level over the long-term. Restrictions on IDARNG training would be moderately beneficial at the local level, but other military training activities could have slight adverse impacts at the local level in the OTA over the short-and long-term.</p>



Impacts Table 3.1. Summary of Impacts.

	The objective would be met. The specific SSP DFC for Upland Vegetation (Section 4.2.8.) would be met except for suitable habitat in non-shrub areas of the OTA where surface disturbing activities would occur.
3.3.6.2.1 Special Status Plants	
Alternative A	<p>Individually restrictions on IDARNG training, land consolidation, grazing closures, restrictions on surface disturbing activities, implementation of the slickspot peppergrass CA, and areas closed to motorized vehicles would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would have slight to moderate long-term benefits at the local level. At the landscape level, improvements in vegetation condition would not exceed the loss of SSP populations to fire and weed infestations. Implementation of S&Gs and application of vehicle route designation criteria would provide slight to moderate short- and long-term benefits at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level. IDARNG activities would have slight to moderate short- and long-term adverse impacts in the OTA.</p> <p>The objective and DFC would not be met.</p>
Alternative B	<p>Areas closed to motorized vehicles and/or grazing, implementation of the slickspot peppergrass CA, and restrictions on IDARNG training and other surface disturbing activities would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would have moderate long-term benefits at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level over the long-term. Changes in livestock grazing, recreation, and vehicle management, and consolidating ownership would provide slight to moderate landscape-wide long-term benefits. Surface disturbing activities including development of recreation sites could have slight to moderate short-term localized adverse impacts. IDARNG activities, utility development, and limited recreation facilities and weeds treatments would have slight to moderate long-term adverse impacts at the landscape scale.</p> <p>The objective and specific SSP DFC under Upland Vegetation would be met in those portions of Management Areas 1 and 2 affected by vegetation treatments. In the remainder of the NCA the objectives and DFC would be unmet. Off-road maneuver training in non-shrub areas would maintain existing habitat fragmentation.</p>
Alternative C	<p>Individually, areas closed to motorized vehicles, implementation of the slickspot peppergrass CA, consolidating ownership, an increased number of recreation sites, and restrictions on IDARNG training and surface disturbing activities would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level. Application of the route designation criteria would provide slight to moderate long-term benefits at the landscape level. Removal of livestock would be highly beneficial to SSP associated with perennial communities and slightly beneficial to SSP associated with annual communities over the long-term at the landscape level. Surface disturbing activities including development of recreation sites and utilities could have slight to moderate localized adverse</p>



Impacts Table 3.1. Summary of Impacts.

	<p>impacts over the short-term. IDARNG activities would have slight to moderate long-term adverse impacts in the OTA.</p> <p>The objective and specific DFC under Upland Vegetation would be met outside the OTA. Within the OTA the objective and DFC would not be met because of the potential for fires from live-fire training in the Impact Area; however, suppression efforts by the IDARNG would provide some degree of protection. Off-road maneuver training in non-shrub areas would maintain existing habitat fragmentation.</p>
Alternative D Proposed	<p>Individually, areas closed to motorized vehicle use and livestock grazing and restrictions on IDARNG training and surface disturbing activities, would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level. Consolidating ownership, increased recreation facilities, implementation of S&Gs and application of route designation criteria would provide slight to moderate long-term benefits at the landscape level. Surface disturbing activities including development of recreation sites could have slight to moderate short-term localized adverse impacts. IDARNG activities would have slight to moderate adverse long-term impacts in the OTA.</p> <p>The objective and specific DFC under Upland Vegetation would be met outside the OTA. Within the OTA the objective and DFC would not be met because of the potential for fires from live-fire training in the Impact Area; however, suppression efforts by the IDARNG would provide some degree of protection. Off-road maneuver training in non-shrub areas would maintain existing habitat fragmentation.</p>
3.3.7 Soil Resources	
Alternative A	<p>The combined effects of livestock grazing, spread of invasive species, and wildland fire would have slight to moderate short- and long-term adverse impacts at the landscape level. At the local level, military maneuver activities and surface disturbing activities (including recreation) would result in slight to moderate long-term adverse impacts.</p> <p>The objectives would not be met. No DFC were identified.</p>
Alternative B	<p>Vegetation treatments would result in slight to moderate adverse local impacts over the short-term and moderate long-term benefits landscape-wide. The combined effects of livestock grazing, spread of invasive species, and wildland fire would have slight to moderate long-term adverse impacts at the landscape level. Military off-road maneuver training and surface disturbing activities would have moderate long-term localized adverse impacts. Restricting military maneuver activities would have highly beneficial localized impacts in shrub communities.</p> <p>The objective would be met in the majority of Management Areas 1 and 2 but not in the remainder of the NCA because areas dominated by annuals would be susceptible to soil erosion. No DFCs were identified.</p>
Alternative C	<p>Vegetation treatments would result in slight to moderate adverse local impacts over the short-term and highly beneficial long-term landscape-wide impacts. The combined effects of surface disturbing activities and wildland fire would have slight adverse impacts at the local level. Military off-road maneuver training would have</p>



Impacts Table 3.1. Summary of Impacts.

	<p>moderate long-term localized adverse impacts. Restricting military maneuver activities would have highly beneficial localized impacts in shrub communities.</p> <p>The objectives would be met except for designated off-road Maneuver Areas of the OTA. No DFCs were identified.</p>
Alternative D Proposed	<p>Vegetation treatments would result in slight to moderate adverse local impacts over the short-term and highly beneficial long-term landscape-wide impacts. The combined effects of livestock grazing, and wildland fire would have slight to moderate long-term adverse impacts at the landscape level. Military off-road maneuver training and surface disturbing activities would have slight to moderate long-term localized adverse impacts. Restricting military maneuver activities would have moderate to high localized short- and long-term beneficial impacts.</p> <p>The objectives would be met except for designated off-road Maneuver Areas of the OTA. No DFCs were identified.</p>
3.3.8 Upland Vegetation	
Alternative A	<p>Land consolidation, restrictions on surface disturbing activities, and areas closed to motorized vehicle use would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would have slight to moderate long-term benefits at the local level. Fire suppression priorities could moderately benefit shrub communities and could adversely affect annual communities slightly at the landscape level over the long-term. Implementation of S&Gs, application of route designation criteria, avoidance areas, and VRM classifications would provide slight to moderate long-term benefits at the landscape level. IDARNG activities, livestock grazing in annual communities, and limited recreation facilities and weeds treatments would have slight to moderate adverse impacts at the landscape scale over the long-term. Overall, there would be a landscape-wide loss of 40,000 acres of shrub communities and further ecological degradation principally as a result of fire.</p> <p>The objectives and DFCs would not be met because vegetative loss through fire and degradation would exceed BLM projections.</p>
Alternative B	<p>Individually, areas closed to motorized vehicle use, and restrictions on surface disturbing activities and livestock grazing in Sandberg bluegrass communities, and consolidating land ownership would provide slight to moderate localized benefits over the long-term; however, combined the impacts would be slight at the landscape level. Vegetation treatments and research areas could have slight adverse localized impacts in the short-term, but would have moderate long-term benefits at the landscape level. Fire suppression priorities could moderately benefit shrub communities and could adversely affect annual communities slightly at the landscape level. Implementation of S&Gs and application of the route designation criteria would provide slight to moderate long-term benefits at the landscape level. Surface disturbing activities and development of recreation facilities could have slight to moderate short- and long-term localized adverse impacts. IDARNG off-road training, utility development, livestock grazing in annual communities, visual resources classifications, and inadequate recreation facilities and weeds treatments would have slight to moderate short- and long-term adverse impacts at the landscape scale. Overall, there would be a slight landscape-wide net increase (20,000 acres) in shrub communities, and degraded communities would occur primarily in Management Area 3 and non-shrub portions of the OTA.</p>



Impacts Table 3.1. Summary of Impacts.

	<p>The objective would be met. The DFCs would be met except for designated off-road Maneuver Areas of the OTA and in Management Area 3 where shrub communities would not increase.</p>
Alternative C	<p>Individually, areas closed to motorized vehicles, restrictions on surface disturbing activities, and consolidating land ownership would provide slight to moderate localized benefits over the long-term. Vegetation treatments and research areas could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit shrub communities at the landscape level and could adversely affect annual communities slightly at the local level. Application of the route designation criteria and protection afforded by the VRM Class II designation would provide slight to moderate long-term benefits at the landscape level. Removal of livestock would be highly beneficial to perennial communities and slightly beneficial to annual communities over the long-term at the landscape level. Surface disturbing activities, development of recreation sites and utilities could have slight to moderate short- and long-term localized adverse impacts. IDARNG off-road training would have slight to moderate long-term adverse impacts in the OTA. Overall, there would be a substantial landscape wide net increase (115,000 acres) in shrub communities. Degraded communities would occur primarily in non-shrub portions of the OTA.</p> <p>The objective would be met. All DFCs would be met except in designated off-road Maneuver Areas of the OTA.</p>
Alternative D Proposed	<p>Individually, areas closed to motorized vehicles, restrictions on surface disturbing activities and livestock grazing in Sandberg bluegrass communities, and consolidating land ownership would provide slight to moderate localized benefits over the long-term. Vegetation treatments and research areas could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit shrub communities at the landscape level and could adversely affect annual communities slightly at the local level. Implementing S&Gs, application of the route designation criteria, and protection afforded by visual resources classifications (Class II) would provide slight to moderate benefits at the landscape level. Surface disturbing activities including development of recreation sites could have slight to moderate localized adverse impacts. IDARNG off-road training in non-shrub communities would have slight to moderate long-term adverse impacts in the OTA.</p> <p>The objective would be met. All DFCs would be met except in designated off-road Maneuver Areas of the OTA.</p>
3.3.9 Water Quality, Riparian, and Wetlands	
Alternative A	<p>Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds (closures and restrictions to livestock grazing or limitations on off road vehicle use, etc.) would have slight to moderate long-term beneficial impacts at the local level. Existing recreation facilities would not meet the increasing demand for river-based recreation, which would result in slight to moderate long-term adverse impacts to riparian areas. Restoring one mile of riparian habitat and 80 acres of wetlands in the TWMA would result in slight long-term benefits at the local level; however, in the long-term, riparian areas would be moderately adversely impacted by weed infestations at the landscape level. In addition, maintaining or improving PFC along all 101 stream and shore-line miles would have a slight long-term benefit impact at the landscape level.</p>



Impacts Table 3.1. Summary of Impacts.

	The objective would be met; however, the DFCs would not be met as a result of limited restoration of riparian habitat.
Alternative B	<p>Construction of an additional pond at TWMA would moderately improve water quality at the local level over the long-term. Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds (closures and restrictions to livestock grazing or limitations on off road vehicle use, etc.) would have slight to moderate long-term beneficial impacts at the landscape level. Additional recreational facilities would not meet the increasing demand for river-based recreation, which would result in slight to moderate long-term adverse impacts to riparian areas. Weed treatments and restoring 20 miles of riparian habitat and 80 acres of wetlands in the TWMA would result in slight to moderate long-term benefits at the local level. In addition, maintaining or improving PFC along all 101 stream and shore-line miles would have slight long-term benefits at the landscape level. Overall this alternative would maintain and slightly improve riparian areas.</p> <p>The objective and DFCs would be met.</p>
Alternative C	<p>Construction of an additional pond at TWMA would moderately improve water quality at the local level over the long-term. Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds (elimination of livestock grazing or limitations on off road vehicle use, etc.) would be moderately to highly beneficial over the long-term at the landscape level. Of the four recreation facilities, only Celebration Park and Guffey Butte would provide additional water-based opportunities, but they would not meet the increasing demand for river-based recreation. The result of limited water-based recreation facilities would result in slight long-term adverse impacts to riparian areas. Weed treatments and restoring 40 miles of riparian habitat and 80 acres of wetlands in the TWMA would result in moderate to high long-term benefits at the landscape level. In addition, maintaining or improving PFC along all 101 stream and shore-line miles would have a slight long-term benefit at the landscape level. Overall this alternative would maintain and improve riparian areas.</p> <p>The objective and DFCs would be met.</p>
Alternative D Proposed	<p>Construction of an additional pond at TWMA would moderately improve water quality at the local level over the long-term. Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds would have moderate long-term beneficial impacts at the landscape level. Recreation facility development would not meet the increasing demand for river-based recreation and would result in slight to moderate short- and long-term adverse localized impacts. Weed treatments and restoring 40 miles of riparian habitat and 80 acres of wetlands in the TWMA would result in moderate to high long-term benefits at the landscape level. In addition, maintaining or improving PFC along all 101 stream and shore-line miles would have a slight long-term benefit at the landscape level. Overall this alternative would maintain and improve riparian areas.</p> <p>The objective and DFCs would be met.</p>
3.3.10 Visual Resources	
Alternative A	Application of the route designation criteria would provide slight to moderate benefits at the local level over the long-term. Impacts from restoration activities would be slightly adverse in the short-term but would result in moderately beneficial impacts over the long-term at the local level. Slight, long-term adverse impacts from IDARNG activities would occur at the local level. Scenic values in the majority of



Impacts Table 3.1. Summary of Impacts.

	<p>the Snake River Canyon would be maintained over the long-term. Development of mineral material sites would have slight to moderate adverse impacts at the local level.</p> <p>The VRM objective would be met. No DFC identified.</p>
Alternative B	<p>Construction of two new recreation facilities, closures to motorized vehicles, application of the route designation criteria, and the designation of four SRMAs would provide slight to moderate local benefits over the long-term. Vegetation treatments would result in slight adverse impacts at the local level in the short-term and slight benefits at the landscape level over the long-term. Expanding the avoidance area would be slightly beneficial at the landscape level. Military training would be consistent with a VRM Class IV area. The W&SR recommendation would slightly to moderately benefit visual resources along 22 miles of the River. Slight long-term protection along the Oregon Trail and the Canyon would be provided by the SRMA designations. Use of active mineral material sites would have slight long-term adverse impacts at the local level.</p> <p>The VRM objective would be met. No DFC identified.</p>
Alternative C	<p>Construction of four new recreation facilities, closures to motorized vehicles, application of the route designation criteria, and the designation of four SRMAs would provide slight to moderate local benefits over the long-term. Vegetation treatments would result in moderate adverse impacts at the local level in the short-term and moderate benefits at the landscape level over the long-term. Expanding the avoidance area would be moderately beneficial at the landscape level over the long-term. Military training would be consistent with the VRM classifications. The W&SR recommendation would slightly to moderately benefit visual resources over the long-term along 49 miles of the Snake River. Elimination of livestock grazing would result in a slight long-term localized benefit in VRM Class II areas from the removal of range projects. The VRM II classification and SRMA designations along the Oregon Trail and in the Snake River Canyon would provide moderate long-term landscape-wide protection for the scenic values. Use of active mineral material sites would have slight long-term adverse impacts at the local level.</p> <p>The VRM objective would be met. No DFC identified.</p>
Alternative D Proposed	<p>Construction of five new recreation facilities, closures to motorized vehicles, application of the route designation criteria, and the designation of four SRMAs would provide slight to moderate local benefits over the long-term. Vegetation treatments would result in moderate adverse impacts at the local level in the short-term and moderate benefits at the landscape-level over the long-term. Maintaining the existing avoidance area would be slightly beneficial at the local level over the long-term. Military training would be consistent with the VRM classifications. The VRM II classification and SRMA designations along the Oregon Trail and in the Snake River Canyon would provide moderate long-term landscape-wide protection for the scenic values. Development of mineral material sites would have slight to moderate long-term adverse impacts at the local level.</p> <p>The VRM objective would be met. No DFC identified.</p>
3.3.11 Wild Horses and Burros	
All Action Alternatives	Not an issue. See Section 2.2.11 in Affected Environment.



Impacts Table 3.1. Summary of Impacts.

3.3.12 Idaho Army National Guard	
Alternative A	<p>There would be slight short- and long-term adverse impacts to IDARNG training activities from livestock grazing, dispersed recreation, and inadequate excavation training opportunities. There would be moderate beneficial impacts from the Impact Area withdrawal.</p> <p>The objective and DFCs would be met.</p>
Alternative B	<p>Mandatory restrictions on training in shrub areas would slightly to moderately reduce IDARNG training flexibility in the short- and long-term. Withdrawal of the Impact Area and increased training opportunities in the expansion area and excavation areas would have moderate to high long-term benefits. There would be slight adverse impacts from livestock grazing, dispersed recreation, and increased travel time to new training areas.</p> <p>The objective and DFCs would be met.</p>
Alternative C	<p>Collectively, the loss of training acreage, mandatory restrictions in shrub areas, scheduling conflicts, and loss of TDs would have moderate long-term adverse impacts to IDARNG training flexibility and high short-term adverse impacts to training capability during key training periods (May, June and July). Withdrawal of the Impact Area would have moderate long-term benefits.</p> <p>The objective and DFCs would be met.</p>
Alternative D Proposed	<p>Mandatory restrictions on training in shrub areas would slightly reduce IDARNG training capability in the short- and long-term. Withdrawal of the Impact Area and increased training opportunities in the expansion area and excavation areas would have moderate long-term benefits. There would be slight short- and long-term adverse impacts from livestock grazing, dispersed recreation, and increased travel time to new training areas.</p> <p>The objective and DFCs would be met.</p>
3.3.13 Lands and Realty	
Alternative A	<p>Consolidating land ownership and precluding major utility developments would have moderate long-term landscape-wide benefits. Maintaining the existing boundary would result in slight long-term adverse impacts landscape-wide.</p> <p>The objective and DFCs would be met.</p>
Alternative B	<p>Consolidating land ownership would have moderate long-term landscape-wide benefits. Maintaining the existing boundary and providing a second utility corridor would result in slight to moderate long-term adverse impacts at the landscape level. There would be moderate long-term benefits from the avoidance area at the landscape level.</p> <p>The objective and DFCs would be met.</p>
Alternative C	<p>Consolidating land ownership and realigning the boundary would have slight to moderate long-term landscape-wide benefits. Providing a second utility corridor would result in slight to moderate long-term adverse impacts. There would be moderate long-term benefits from the avoidance area at the landscape level.</p> <p>The objective and DFCs would be met.</p>
Alternative D Proposed	<p>Consolidating land ownership and realigning the boundary would have slight to moderate long-term landscape-wide benefits. Providing a second utility corridor</p>



Impacts Table 3.1. Summary of Impacts.

	<p>would result in slight to moderate long-term adverse impacts. There would be slight long-term landscape-wide benefits from the avoidance area. The objective and DFC would be met.</p> <p>The objective and DFCs would be met.</p>
3.3.14 Livestock Grazing	
Alternative A	<p>The long-term landscape-wide benefits of implementing S&Gs would be slight in perennial communities and negligible in annual communities. Activities that protect or enhance special resources would have moderate short- and long-term moderate localized impacts. Impacts with military activities would be moderate and localized.</p> <p>The objective and DFCs would be met.</p>
Alternative B	<p>Implementing S&Gs would be slightly beneficial in perennial and riparian communities over the long-term and would have negligible impacts in annual communities. Activities that protect or enhance special resources would have moderate short- and long-term localized impacts. Vegetation treatments would have moderate short-term adverse impacts at the local level and moderate long-term beneficial impacts at the landscape level.</p> <p>The objective and DFCs would be met.</p>
Alternative C	<p>Eliminating grazing would be highly adverse over the short- and long-term at the landscape level.</p> <p>The objective and DFCs would not be met.</p>
Alternative D Proposed	<p>Implementing S&Gs would provide slight long-term beneficial impacts in perennial and riparian communities and negligible impacts in annual communities. Activities that protect or enhance special resources would have moderate short- and long-term localized impacts. Vegetation treatments would have moderate short-term adverse impacts and moderate to high long-term beneficial impacts at the landscape level.</p> <p>The objective and DFCs would be met.</p>
3.3.15 Mineral Resources	
3.3.15.1 Leasable Minerals	
All Action Alternatives	No impacts See Minerals Section 2.2.15 in Affected Environment Chapter 2.
3.3.15.2 Mineral Materials	
Alternative A	<p>Maximizing compatible mineral material development would have no impacts to the availability of mineral materials.</p> <p>The objective would be met. No DFC was identified.</p>
Alternatives B and C	<p>Authorizing mineral material extraction from existing open sites would have slight adverse impacts on the availability of mineral materials.</p> <p>The objective would be met. No DFC was identified.</p>
Alternative D Proposed	<p>Maximizing compatible mineral material development would have no impacts to the availability of mineral materials.</p> <p>The objective would be met. No DFC was identified.</p>



Impacts Table 3.1. Summary of Impacts.

3.3.15.3 Locatable Minerals	
All Action Alternatives	No impacts See Minerals Section 2.2.15 in Affected Environment Chapter 2.
3.3.16 Recreation	
Alternative A	Recreational developments would not keep up with demand, which would result in moderate to high landscape-wide adverse impacts over the long-term. Vegetation treatments, VRM classifications, application of route designation criteria, and live-stock closures would have slight long-term benefits at the local level. The objectives and DFCs would be met.
Alternative B	Insufficient recreational developments would result in moderate adverse landscape wide impacts over the long-term; however the two new sites would have moderate long-term beneficial impacts at the local level. Vegetation treatments, restrictions on military training in the Bravo Area, and the application of route designation criteria would have slight to moderate long-term benefits at the landscape level. Livestock and/or motorized vehicle closures would have moderate long-term benefits at the local level to river-based recreation. Motorized vehicle closures would have slight long-term localized adverse impacts to motorized recreation. The objectives and DFCs would be met.
Alternative C	Vegetation treatments, restrictions on military training in the Bravo Area, and elimination of livestock grazing would all have slight landscape-wide long-term beneficial impacts. Four additional recreation facilities would have slight long-term localized beneficial impacts by meeting the increasing recreational demand. The recommendation for W&SR designation would have slight localized long-term benefits. The 13,200 acres closed to motorized recreation would have the slight long-term beneficial impact of meeting a greater range of recreational opportunities but would also have slight long-term adverse impacts to motorized recreation. The objectives and DFCs would be met.
Alternative D Proposed	The seven recreation facilities would have moderate localized long-term beneficial impacts by meeting the future recreational demand. Restrictions on military training in the Bravo Area would have slight long-term beneficial impacts. The intermittent grazing of the Kuna Butte area would have slight short-term adverse impacts to recreation when it is being used for grazing. The amount of vegetation treatments would result in slight short-term localized adverse impacts and slight long-term landscape-wide beneficial impacts. The objectives and DFCs would be met.
3.3.17 Renewable Energy	
All Action Alternatives	No Impacts. See Lands and Realty Section 2.2.13 in Affected Environment Chapter 2.
3.3.18 Transportation	
Alternative A	The designation of approximately 1,600 acres (less than 1% of the NCA) as closed to motorized vehicle use provides for moderate to high localized long-term motorized vehicle opportunities with moderate to high adverse impacts to non-motorized vehicle activities. The area identified as limited to designated routes (431,200 acres) would have highly beneficial landscape-wide impacts. Designating (10,300 acres or about 2% of the NCA) as VRM Class I would result in moderate to high adverse lo-



Impacts Table 3.1. Summary of Impacts.

	<p>calized impacts over the long-term. Vegetative treatments would result in short-term localized adverse impacts.</p> <p>The objective and DFCs identified under Recreation (See Section 4.2.16) would be met.</p>
Alternative B	<p>The 6,400 acres designated as closed and 120,000 acres of vegetation treatments would result in slight long-term landscape-wide benefits by reducing the number of routes, and increasing non-motorized opportunities. The utility corridors would have moderate landscape-wide long-term beneficial impacts.</p> <p>The objective and DFCs would be met.</p>
Alternative C	<p>The 13,200 acres designated as closed and 230,000 acres of vegetation treatments would result in slight long-term landscape-wide adverse impacts by reducing the number of routes. The utility corridors would not impact the transportation system.</p> <p>The objective and DFCs would be met.</p>
Alternative D Proposed	<p>The 4,400 acres designated as closed would have slight localized adverse impacts and the 428,400 limited acres would have moderate to high landscape-wide beneficial impacts. Approximately 230,000 acres of vegetation treatments would result in moderate to high long-term landscape-wide adverse impacts by reducing the number of routes.</p> <p>The objective and DFCs would be met.</p>
3.3 19 Utility and Communications Corridors (Land Use Authorizations)	
All Action Alternatives	See Lands and Realty Section 3.3.13.
3.3.20 Wildland Fire Ecology and Management	
All Action Alternatives	See Upland Vegetation Section 3.3.8.
3.3.21 Special Designations	
All Action Alternatives	See Recreation Section 3.3.16 and Cultural and Tribal Resources Section 3.3.2.
3.3.22 Social and Economic Conditions	
3.3.22.1 Economic Conditions	
Alternative A	<p>There would be no changes in employment (1,100 jobs) and no changes in associated income.</p> <p>The objectives and DFCs would be met.</p>
Alternative B	<p>There would be a slight beneficial impact on the regional economy. Combined impacts of recreation, military, livestock operations, and vegetation treatments would result in a total increase of approximately 16 jobs or a 1% change from current conditions in NCA related jobs. The impact would be negligible (0.005%) in the region. Change in earnings would also be negligible, showing an increase of about \$400,000 in regional earnings. This is a 1% change in NCA generated earnings and a 0.004% change in earnings in Southwest Idaho.</p> <p>The objectives and DFCs would be met.</p>
Alternative C	At the Regional level, there would be a slight to moderate adverse economic impact on military activities and livestock operations. There would be a slight beneficial impact from recreation-related spending. Spending associated with vegetation treat-



Impacts Table 3.1. Summary of Impacts.

	ments would be substantial, but would only have slight benefits at the Regional level. There would be a negligible increase in jobs. All sectors would see some increase in jobs with the exception of IDARNG and livestock management. The objectives and DFCs would be met.
Alternative D Proposed	There would be a slight adverse economic impact on military activities and livestock operations. There would be a slight beneficial impact from recreation-related spending. Spending associated with vegetation treatments would be substantial, but would only have slight benefits at the Regional level. There would be a negligible increase in jobs. All sectors would see some increase in jobs with the exception of IDARNG and livestock management. The objectives and DFCs would be met.
3.3.22.2 Environmental Justice	
All Action Alternatives	Actions proposed under the alternatives would not cause disproportionate adverse human health or environmental impacts to minority and/or low-income populations.
3.3.22.3 Hazardous Materials	
All Action Alternatives	No impacts.

Impacts Table 3.2. Summary of Cumulative Impacts.

Alternative A	Alternative A has the potential to cumulatively affect the following resources and resource uses at a moderate level when combined with other actions and trends within a greater region of influence: upland and riparian vegetation, soils, water quality, cultural resources, and wildlife habitat. Population growth and change from agricultural use to residential development along with the continued loss of native vegetation within the NCA would result in loss of habitat for raptors and their prey as well as other wildlife, an increase in human-caused fires, and the associated loss in native vegetation, could result in the potential for increases in soil erosion. The NCA contribution to these overall cumulative impacts would be moderate.
Alternative B	Alternative B would increase vegetation treatments, reduce loss of vegetation and increase management activities to accommodate use of the NCA relative to Alternative A, resulting in a slight adverse overall cumulative impact.
Alternative C	Alternative C has the highest level of vegetation treatments and protection of natural resources and would not contribute to regional habitat loss. Successful restoration efforts would meet the needs of raptors and their prey and help off-set the regional loss of habitat. There would be negligible regional adverse cumulative impacts from reductions in livestock grazing and IDARNG activities; however, these would be off-set by negligible to slight beneficial cumulative impacts based on recreation, vegetation treatments, wildlife habitat improvement, and general economic growth.
Alternative D Proposed	Alternative D has the same level of vegetation treatment as Alternative C and also provides a high level of protection of natural resources and would not contribute to regional habitat loss. Successful restoration efforts would meet the needs of raptors and their prey and help off-set the regional loss of habitat. There would be no regional adverse cumulative impacts. However, there would be slight beneficial cumulative impacts based on recreation, vegetation treatments, wildlife habitat improvement, and general economic growth.



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4.1 INTRODUCTION

This chapter provides the scientific and analytic basis for a comparison of the alternatives. Considering the existing condition of the environment that would be affected by the Snake River Birds of Prey National Conservation Area (NCA) Resource Management Plan (RMP) (Chapter 2) and imposing the descriptions of the alternatives (Chapter 3), the types and magnitude of impacts were identified and quantified to the extent practicable for the purposes of this programmatic document. Regardless of resource or resource use, BLM is guided by the NCA Enabling Legislation (Appendix 1) and Planning Criteria (Appendix 2) and as such, these are not specifically outlined as assumptions.

4.1.1 Impact Analysis Descriptors

Impacts are defined as modifications to the environment that are brought about by a management action. This chapter describes the direction, extent, and duration of identified impacts. Impacts and effects are used synonymously in this chapter. Impacts can vary in significance from no change, or only slightly discernible change, to a full modification or elimination of the environmental condition.

Types of impacts

There are three types of effects:

- Direct effects are caused by the action and occur at the same time and place.
- Indirect effects are caused by the proposed action and are later in time or farther in distance, but are still reasonably foreseeable.
- Cumulative effects result from incremental impacts of actions when added to other past, present, and foreseeable future actions regardless of what person or agency (Federal or non-Federal) undertakes those actions.

Direct and indirect impacts are discussed in Section 4.2. Cumulative impacts are discussed in Section 4.3.

Direction of Impacts

Impacts can result in an increase or improvement of a resource or resource use (beneficial) or can result in a decrease or degradation of a resource or resource use (adverse).

Extent of Impacts

The extent of an impact is described in terms of how apparent it might be (magnitude) and how much of an area it might effect (scale).

Magnitude of Impacts

The magnitude of potential impacts are described in some sections as being high, moderate, low, or slight and are defined as follows:

- High Impacts could potentially cause significant change or stress to an environmental resource or use.
- Moderate Impacts could potentially cause some change or stress (ranging between significant and insignificant) to an environmental resource or use.
- Slight Impacts could potentially cause a discernible, but insignificant change or stress to an environmental resource or use.
- Negligible Impact could potentially cause an indiscernible and insignificant change or stress to an environmental resource or use.

Scale of Impacts

For direct and indirect impacts, the extent of impact is usually described as either the local level or on a landscape-wide basis. The local level refers to the direct area of impact or a small portion of the NCA while landscape-wide refers to the majority of the affected resource in the NCA. Unless specifically identified, impacts would be at the local level.

For cumulative impacts, the area(s) in which a resource may be affected, the region of influence, may differ from the planning area or BLM decision area. The region of influence can vary by resource or resource use. Limits of the region of influence may be natural features (e.g., watershed), political boundaries (e.g., a county), or industry-accepted norms of the



resource (e.g., regional air quality, visual resource viewsheds, social and economic conditions). Examples appropriate to this RMP/EIS include: (1) the region of influence for the social and economic conditions analysis includes Ada, Canyon, Elmore, and Owyhee counties; and (2) raptor prey habitat that may support nesting and migrating raptors in the NCA (at least some of the time) includes Snake River plains from Oregon to at least Glenns Ferry (considering maximum foraging distances of any of the raptors in the NCA).

Duration of Impacts

Impacts can be temporary (short-term) or permanent, long lasting (long-term). In the case of this analysis, short-term impacts are defined as those changes to the environment during and following ground-disturbing activities that generally revert to pre-disturbance conditions at or within a few years after the disturbance has taken place. Long-term impacts are defined as those that substantially would remain beyond short-term ground-disturbing activities.

Impact Considerations

The impact assessment took into account the laws, regulations, policies, guidelines, and best management practices (BMP) or techniques that would generally apply to all future actions. In addition, it should be noted that no ground-disturbing activities would result directly from the approval of the RMP. Future ground-disturbing activities would require site- or project-specific environmental evaluation prior to final approval of the activities (36 CFR 228.107). Any measures to mitigate impacts identified at that time could be incorporated into the action. The impacts remaining after considering and incorporating the mitigation measures are considered residual, unavoidable impacts.

Because of the large volume of data, it is necessary to summarize the results to the extent appropriate for each resource. The descriptions of potential impacts focus on those resources that could be affected substantially or

those identified by the public and/or agencies as issues regardless of the impact (e.g., biological resources, land use [e.g., recreation, military training], cultural resources). Potential impacts on those resources that would not be affected substantially, or were not identified as major issues (e.g., geology, paleontology), are presented in a general summary. Impacts on these resources would be minimal (low to moderate) with only slight differences between alternatives.

For purposes of comparison and analytic purposes only, acreage figures and other measurements used and referred to in this chapter are approximate. Similar to the description of the affected environment (Chapter 2), impacts are generally addressed for the entire planning area (all lands within the NCA regardless of jurisdiction or ownership); however, BLM only has authority to make decisions for public lands administered by BLM (BLM decision area) and not private or State lands.

4.1.2 Chapter Organization

The sections that follow this introduction address the potential impacts on each resource or resource use for each alternative. Each section includes the following components:

Summary

A brief comparison of the four alternatives to provide an indication of how the alternatives compare to one another in their ability to achieve objectives and desired future conditions (DFC).

Assumptions

Because the analyses are broad in nature and not all factors that influence how impacts may act on a resource are known, assumptions are made for analysis purposes and to provide a basis for comparison between the alternatives. In addition, because not all resources or resource uses react the same, definitions or timelines for short- and long-term impacts are identified in the assumptions for each resource or resource use.



How Activities Affect Resources or Resource Uses

In order to reduce redundancy and provide clarity, this section has been developed for the various resources and resource uses. This section is used to describe the manner in which a given activity affects a resource or resource use. This section also provides an overview of the direct and indirect impacts of the change agent on a resource and whether the impact is short-term or long-term. The following are examples of the types of impacts.

- Direct impact: Non-target plant may be killed by herbicide application.
- Indirect impact: Desirable plants may thrive when competitive weeds are removed through herbicide application.
- Short-term impact: Fire may remove vegetation required for animal forage in a given year.
- Long-term impact: Fire changes community dynamics by favoring weedy annual species.

Discussion of Impacts

Provides an analysis of the direction, extent, and duration at which the change agents operate for each alternative. The discussion of impacts works hand-in-hand with change agents and is not a reiteration of the change agents.

Conclusions by Alternative

Provides an overview on the degree to which the resource objectives and DFC for a resource would be met by the proposed management actions. This conclusion is not meant to be a comparison of the different alternatives.

4.2 DISCUSSION OF IMPACTS BY RESOURCE AND RESOURCE USE

4.2.1 Air Quality

Summary

Under all alternatives, the air quality objective would be met. There would be a slight short-term adverse impact on air quality associated with Idaho Army National Guard (IDARNG) and BLM activities. The potential exists for a negligible long-term localized adverse impact

where IDARNG activities are routinely conducted and where restoration activities disturb the soil.

Assumptions

- The air resource program would be managed in the same general manner in all alternatives in accordance with, laws, regulations, and policies with the goal of meeting current standards.
- Short-term impact would be those that contribute to a decline in air quality only during the activity.
- Long-term impact would be a decline in air quality that does not improve to meet State standards within a few days of the activity that is contributing to the decline.
- In most cases, short-term impacts would be less than 30 days. In most cases, long-term impacts are those that continue for more than 30 days.

How Activities Affect Air Quality

Direct Impacts

Miscellaneous Surface Disturbing Activities

- There would be short-term impacts to air quality through dust and vehicle emissions. Dust impacts would have a greater potential to occur when soils are dry. The use of heavy equipment would result in soil disturbance. Adverse impacts to air quality would occur from increased dust until the disturbed areas are rehabilitated.

Smoke Producing Activities

The use of prescribed fire and live-firing military activities would result in short term adverse impacts during and immediately following the activity. Burning under prescription would keep emission levels within State air quality standards

Indirect Impacts

Miscellaneous Surface Disturbing Activities

- Impacts on air quality would occur from dust emanating from areas where the protective cover (i.e., vegetation, biological



soil crusts) has been reduced or eliminated through repeated disturbances (i.e., military training, livestock, off-road vehicle (ORV) activity).

- Dust abatement procedures are utilized whenever practicable.
- The loss of vegetative cover associated with reducing or eliminating fuels (including the construction or maintenance of fuel breaks) and restoration activities could increase dust emissions in the short-term through wind erosion. These impacts would decrease in the long-term where desirable vegetation becomes established in treated areas.

Smoke Producing Activities

- Human-caused wildfires (i.e. recreation, IDARNG training) would have short-term adverse impacts to air quality. The mean size of military-activity related fires and the resulting smoke would not change over the long-term, or could be reduced during training periods due to the on-site presence of IDARNG fire suppression crews that would respond quickly to ignitions.

Discussion of Impacts by Alternative

Air Quality – Alternatives A, B, C, and D

Under all alternatives, adverse impacts on air resources would be slight to moderate and would only result immediately following ground disturbing activities. Short- to long-term impacts could occur in fuels treatment and restoration areas that need to be treated repeatedly until adequate vegetative cover is established. At any one time, impacts from any alternative would occur at the local level.

Conclusion – Air Quality: Alternatives A, B, C and D

Overall, there would be a slight short-term adverse impact on air quality associated with surface disturbing activities. The potential exists for negligible, localized, long-term adverse impacts where IDARNG activities are routinely conducted or where BLM restoration activities disturb the soil and site stabilization

takes a number of years. Since the air resource program would be managed in accordance with laws, regulations, and policies, with the goal of meeting current standards, all alternatives would meet the program objectives. The air quality objective would be met.

4.2.2 Cultural and Tribal Resources

Summary

All four alternatives have identified adequate measures to protect and manage significant cultural resources; therefore the overall objectives for cultural and tribal resources would be met. However, with the increasing population in the area and associated demands for use of the NCA, there would be increased potential for damage to cultural resources in the future. The DFC would also be met under all four alternatives; however, under current management actions (Alternative A), the DFC would only be met to a minimal degree. In addition, restoration and fuels management levels under alternatives C and D could have moderate adverse impacts to cultural resources based on the potential number of acres affected. Actions would be taken to protect significant cultural resources and traditional cultural properties, as well as the Oregon Trail. Vegetation treatment projects identified in Alternatives C and D would have long-term benefits to traditional cultural properties.

Assumptions

- The level of protection provided cultural resources would continue to meet minimum legal and regulatory requirements.
- Population growth would increase activities that could potentially disturb cultural resources.
- Cultural sites would continue to be impacted by natural weathering and erosion.
- Qualitative information indicates areas where there is a higher probability that cultural resources would be present. Highly disturbed or recently developed areas would be less likely to include intact cultural resources.
- Short-term impacts would be related to traditional cultural properties only. There



would be disturbance in the area, which would not directly impact the traditional cultural property. Impacts to other cultural resources would be considered long-term because cultural resources do not have the ability to recover.

How Activities Affect Cultural and Tribal Resources

Direct Impacts

Idaho Army National Guard Activities

Maneuver training could have long-term adverse impacts through the destruction of unidentified cultural resources.

- The IDARNG has an active cultural resource program involving monitoring, inventory, fencing and education to help reduce impacts to cultural sites. Repeatedly disturbed areas would be less likely to include intact cultural resources. Heavy off-road maneuver training has greater potential to adversely affect undocumented cultural sites than light off-road maneuver or maneuvers restricted to roads or trails.

Livestock Grazing Management Activities

Livestock impact cultural resources through trampling and rubbing. Activities that concentrate livestock increase trampling impacts that could result in the long-term adverse impacts to cultural resources.

Recreation Management Activities

Recreation can have long-term adverse impacts to cultural resources through disturbance and unauthorized collection or vandalism.

Competing uses by large groups and/or religious or “new age” cultures may destroy sacred traditional cultural properties, which would result in long-term impacts (pers. com. Ted Howard).

Cultural resource interpretation has the short- and long-term beneficial impact of informing the public about the importance and need to protect cultural resources. Conversely, if the education/interpretive programs highlight the locations of re-

sources, they could be exploited or destroyed through looting or vandalism.

- Facility development could help divert use to areas having lower concentrations of cultural resources.

Surface Disturbing Activities (Land and Realty Actions, Minerals, and Transportation)

- Any surface disturbing activity may have long-term adverse impacts by disturbing or destroying cultural resources or by exposing them to vandalism.
- Routes in remote areas afford the greatest opportunity for vandalism. Because cultural resources may be easily accessible in some areas, route closures in areas with a high probability of cultural resources may provide protection from motorized vehicle damage or removal.

Vegetation – Fire Suppression Activities

- Fire management and suppression activities can involve major ground-disturbing activities that can directly affect cultural resources, especially by altering the spatial relationships of archaeological sites.

Vegetation – Fuels Management Activities

- Although cultural inventories would be performed prior to prescribed fires, sites that are not identified would be affected by the fire, modifying structures, features, and artifacts, which would result in short- and long-term adverse impacts. Organic materials and information that can be obtained from their study are especially vulnerable to heat damage, creating short- and long-term direct impacts.
- Fire can remove vegetation, exposing previously undiscovered resources, which would allow for their study and protection; however, sites exposed by fire or flagged for fire avoidance can also be susceptible to unauthorized collection and vandalism. The beneficial and adverse impacts would result in long-term direct impacts to the cultural resources.



Vegetation – Restoration Activities

- Restoration projects could have long-term impacts on cultural resources through surface disturbing activities. Drill seeding or other restoration activities may expose cultural resources to natural processes, such as degradation and erosion. The inadvertent movement of resources resulting from surface disturbing activities may destroy the scientific value of the resource by changing context.

Indirect Impacts

Idaho Army National Guard Activities

- Maneuver training could have long-term impacts to cultural resources through soil disturbance, soil compaction, altered surface water drainage, and erosion.

Livestock Grazing Management Activities

- Grazing plants that represent ethnobotanical resources would reduce their availability to Native Americans.

Recreation Management Activities

- Recreation can increase erosion processes through vegetative removal, soil compaction and altered surface water drainage. The erosion can expose, degrade, displace, cover, or change the context of resources over the long-term.

Special Designations

- Special Recreation Management Areas (SRMAs) and Areas of Critical Environmental Concern (ACECs) would have the beneficial impact of focusing management that may help protect cultural resources.

Surface Disturbing Activities (Land and Realty Actions, Minerals, and Transportation)

- Surface disturbing activities can increase erosion processes through vegetative removal, soil compaction and altered surface water drainage. The erosion can expose, degrade, displace, cover, or change the context of resources over the long-term.

Vegetation – Fire Suppression Activities

- Successful suppression activities would limit adverse impacts to cultural and historic resources.

Vegetation – Fuels Management Activities

- Fires may destroy traditional properties or values such as ethnobotanical plants as communities are converted from native perennial to exotic annuals.
- Surface disturbing activities may destroy the scientific value of the resource by changing the context.

Vegetation – Restoration Activities

- Successful restoration activities may have a long-term beneficial impact by providing vegetative cover for existing resources, protecting them from subsequent disturbance.

Visual Resource Management Activities

- VRM restrictions can protect cultural resources where they restrict surface disturbing activities.

Discussion of Impacts by Alternative

Cultural and Tribal Resources:

Alternative A

Idaho Army National Guard Activities: Slight adverse long-term localized impacts to unidentified cultural resources could occur in non-shrub areas, which comprise about 35% of the OTA Maneuver Area. The IDARNG voluntary restriction of vehicle maneuver activities to non-shrub areas would moderately reduce training-related adverse impacts to unidentified cultural resources in shrub areas. IDARNG's requirement to manage cultural resources under the MOU plus environmental education and training restrictions imposed by the ICRMP and INRMP would reduce adverse impacts to cultural resources over the long-term.

Livestock Grazing Management Activities: Although slight livestock grazing impacts would continue at the landscape level, the in-



corporation of Standards and Guideline (S&G) requirements (Appendix 3) would slightly improve vegetative conditions and reduce adverse impacts over the long-term. Maintaining a minimum amount of residual vegetation in annual grass areas would reduce erosion processes that could affect cultural properties. Closures would remove adverse impacts from livestock. The 3,900 acres closed to livestock grazing would have benefits in areas that have a high probability of cultural resources.

Recreation Management Activities: Increased recreation use could not be accommodated by expanding existing recreational facilities which would result in potential moderate to high long-term adverse impacts by increasing landscape level dispersed recreation. Continuing to allow campfires across the landscape could result in wildfires that potentially adversely impact cultural resources.

Special Designations: The Guffey Butte-Black Butte (GB-BB) Archaeological District would continue to be managed as an ACEC, which would help focus attention on the need to protect cultural resources in this area. The GB-BB ACEC and the Oregon Trail SRMA would have moderate short- and long-term beneficial impacts by focusing management in areas that have a high potential for cultural resource values. The remaining four SRMAs do not focus on areas where the greatest recreation use is occurring, and have little benefit for protecting cultural resources.

Surface Disturbing Activities: Adverse impacts to cultural resources from mineral material sites or lands and realty actions should be minimal due to the requirement for clearances prior to surface disturbance, as well as special stipulations that are attached to authorizing documents. Avoidance areas should have slight beneficial long-term impacts by minimizing the number of surface disturbing realty actions in the area. Slight adverse impacts from the utility corridor could occur at the local level a ¼-mile wide area).

Transportation Management Activities: The 1,300-acre Halverson Bar area, which has a high probability of cultural values as a result of its proximity to water (Plew 2000), would be closed to motorized vehicle travel, eliminating highly adverse localized vehicle impacts. As a result of the closure, the area is used extensively by hikers and equestrians, which could result in slight localized long-term damage from trampling and unauthorized resource collection. There would be no areas open to recreational off-road travel, which results in highly beneficial long-term impacts by preventing the loss of native vegetation that is important to traditional cultural properties for religious and lifeway practices. The application of route designation criteria would provide a moderate level of protection for known cultural sites. This would slightly minimize adverse impacts from vehicle activity at the landscape level (431,200 acres).

Vegetation – Fire Suppression Activities: Minimizing fire size would benefit cultural resources at the landscape level, especially those located in shrub communities that have higher protection priority. The principal impact to cultural resources in annual grass communities would be the aggressive suppression tactics, rather than the fires themselves. These aggressive techniques would occur most often in areas adjacent to occupied slickspot peppergrass habitat, thus adversely affecting cultural resources located within those adjacent communities.

Vegetation – Fuels Management Activities: Limiting further loss of native shrub habitat to no more than 50,000 acres and restoring degraded habitat as opportunities allow would have localized long-term impacts to cultural resources due to surface disturbance. The 10,000 acres of fire breaks and fuels management projects would predominately affect cultural resources in Management Areas 1 and 2.

Vegetation – Restoration Activities: The 10,000 acres proposed for restoration would slightly impact cultural resources predominately in Management Areas 1 and 2. Moder-



ate long-term benefits to traditional cultural properties and lifeway values may result from the restoration of perennial communities.

Visual Resource Management Activities: About 32,000 acres are designated as Visual Resource Management (VRM) Zones I and II along the Snake River Canyon, is an area with the greatest probability of cultural resources. Managing surface disturbing activities in these localized areas would slightly minimize adverse impacts to cultural resources in the long-term. The remaining 452,000 acres have a lower concentration of cultural resources, and would not be provided protection by VRM classification alone.

**Conclusion – Cultural & Tribal Resources:
Alternative A**

Special stipulations on land use authorizations, voluntary compliance, and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. However, with the increasing population and associated demands for use of the NCA, as well as only two developed recreation facilities, there would be increased potential for moderate adverse impacts to cultural resources. The objective and DFC would be met.

**Cultural and Tribal Resources:
Alternative B**

Idaho Army National Guard Activities: The adverse impacts to unidentified cultural resources in the Bravo Area would be moderately reduced by restricting vehicles to designated routes. In the Alpha, Charlie, and Delta areas, the impacts from maneuver training would be restricted to non-shrub areas and would be at the same level as those described in Alternative A. The 20,400-acre expansion area would absorb the maneuver activities displaced from the Bravo Area, thus moderate adverse impacts would occur to unknown cultural resources in the expansion area commensurate to those levels identified in the Alpha,

Charlie, and Delta Areas. IDARNG's requirement to manage cultural resources under the MOU plus environmental education and training restrictions imposed by the ICRMP and INRMP would reduce adverse impacts to cultural resources over the long-term.

Livestock Grazing Management Activities: Impacts from livestock grazing would be as described in Alternative A, however, the area closed (Grazing Map 5) would be 7,300 acres, and would include the Kuna Butte area, which contains sensitive resources. Seasonal restriction of grazing on 1,300 acres at Halverson Bar would have the same impacts as described in Alternative A.

Recreation Management Activities: Additional recreation facilities (Recreation Map 3) would accommodate some of the future recreational demand; however, the demand along the river would not be met. Moderate adverse localized long-term impacts would result from recreational use would be the greatest areas along the Snake River, an area with the greatest number or probability of cultural sites. Restricting campfires would negligibly reduce potential wildfires and their adverse impacts to cultural resources on a landscape basis.

Special Designations: Impacts would be the same as discussed in Alternative A; however, protection would be expanded to protect more of the Snake River Canyon and the Oregon Trail (Recreation MAP 2). The SRMA covering the entire NCA would be eliminated with no impact to cultural resources because the designation provides no protection over and above the NCA-enabling legislation.

Surface Disturbing Activities: Adverse impacts from mineral material sites or lands and realty actions should be minimal due to the requirement for clearances prior to surface disturbance, as well as special stipulations that are attached to authorizing documents. The avoidance area (Lands Map 4) would provide slight beneficial long-term impacts by precluding large-scale utility developments that could impact the Oregon Trail. The two utility corri-



dors (Lands Map 2) would focus large-scale utility development within a confined area, thus limiting landscape impacts, but increasing localized impacts. The new utility corridor would focus large-scale utility development within a ¼ mile wide area approximately 62 miles long in an area with a low to moderate probability of cultural sites. Much of the area has been burned and the lifeway values (i.e., ethno-botanical plants) do not exist in the area. This corridor would result in slight to moderate localized long-term impacts associated with increased access and development along this corridor.

Transportation Management Activities: The benefits of vehicle closures would have the same long-term impacts as Alternative A; however, the closure would be expanded to cover an additional 4,800 acres around Guffey Butte, Wees Bar, and Cove Recreation site (Transportation Map 3). These areas are along the Snake River and have a high probability of occurrence of cultural resources. The remaining 426,400 acres would be limited to designated routes and the impacts would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: Impacts of fire suppression activities would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: The 70,000 acres of fuels treatments, predominantly in Management Areas 1 and 2, would have slightly beneficial long-term impacts by further reducing the size and severity of fires. Limiting the loss of existing native shrub communities to no more than 30,000 acres would result in the loss of fewer shrub communities than in Alternative A. The 6 miles of new fuel breaks would have slight beneficial impacts to cultural resources by reducing the size and severity of fires and adverse impacts at a local scale.

Vegetation – Restoration Activities: The impacts of restoration would be the same as described in Alternative A, but would affect 50,000 acres in Management Areas 1 and 2.

Visual Resource Management Activities: The elimination of the 10,300 acres in VRM Class I and 21,400 acres in VRM Class II (VRM Map 2) would have moderate adverse long-term impacts by allowing more surface disturbing activities in an area with a high probability of cultural resources. VRM III and IV classifications would not provide protection for cultural resources and therefore would have no impact.

**Conclusion – Cultural & Tribal Resources:
Alternative B**

Special stipulations on land use authorizations, voluntary compliance, application of SOPs and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. Closures to livestock grazing or motorized vehicle use in the river corridor would provide moderate long-term benefits at the local level. There would be slight to moderate adverse impacts from surface disturbing activities, changes in recreation management and the low level of VRM protection at the landscape level. The avoidance area would provide moderate protection from major utility development; however, development within the utility corridor would result in moderate long-term localized adverse impacts. Vegetation treatments would provide slight short-term adverse impacts and slight to moderate long-term benefits to traditional cultural properties. The objective and DFC would be met.

**Cultural and Tribal Resources:
Alternative C**

Idaho Army National Guard Activities: The adverse impacts to unidentified cultural resources in the Bravo Area would be moderately to highly reduced by restricting vehicles to three designated routes (IDARNG Map 4). Off-road maneuver and bivouac training in the Bravo Area would be moved to the Alpha, Charlie, and Delta areas, increasing the training days in these areas by 17-34%. This would slightly increase training related adverse im-



pacts in non-shrub areas outside the Bravo Area. The removal of 3,900 acres of slickspot peppergrass habitat from the OTA (IDARNG Map 4) would have no impact on cultural resources. IDARNG's requirement to manage cultural resources under the MOU plus environmental education and training restrictions imposed by the ICRMP and INRMP would reduce adverse impacts to cultural resources over the long-term.

Livestock Grazing Management Activities: Since there would be no livestock grazing, there would be no adverse impacts. Highly beneficial impacts would result from improved vegetation and watershed conditions, which would help stabilize and protect sites at the landscape level and could enhance TCPs.

Recreation Management Activities: The additional recreation facilities (Recreation Map 3) would accommodate more of the future recreational demand; however, impacts from recreational use would be the greatest in areas with the greatest number or probability of cultural sites. Restricting campfires would negligibly reduce potential wildfires and their impacts to cultural resources on a landscape basis.

Special Designations: Impacts would be the same as discussed in Alternative B.

Surface Disturbing Activities: Adverse impacts to cultural resources from mineral material sites or lands and realty actions should be minimal due to the requirement for clearances prior to surface disturbance, as well as special stipulations that are attached to authorizing documents. The avoidance area (Lands Map 5) would provide slight beneficial long-term impacts by precluding large-scale utility developments that could impact the Oregon Trail. The impacts from the existing utility corridor would be the same as identified in Alternative A. The new utility corridor (Lands Map 2) would slightly limit landscape-wide impacts, but would moderately increase localized adverse impacts. As a result of previous disturbance, the area has a moderate-low probability

of cultural resources except near the Oregon Trail and along the eastern portion.

Transportation Management Activities: Impacts would be the same as discussed in Alternative A; however, the highly beneficial long-term impacts of the motorized vehicle closure would be expanded to cover 13,200 acres (Transportation Map 4). The remaining 419,600 acres would be limited to designated routes and the impacts would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: Impacts of fire suppression activities would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: The 12 miles of new fuel breaks and 100,000 acres of fuels treatments throughout the NCA would have slight to moderate beneficial long-term impacts by further reducing the size and severity of fires. Limiting the loss of existing native shrub communities to no more than 15,000 acres would have moderate beneficial impacts to cultural resources by reducing the size and severity of fires and adverse impacts at a landscape scale.

Vegetation – Restoration Activities: Impacts would be the same as identified in Alternative A; however, restoration projects would cover approximately 130,000 acres (an increase of 120,000 acres over Alternative A). The 130,000 acres of restoration could have highly adverse short-term impacts on TCPs and life-way values at the local level; however, the long-term impacts would be moderately beneficial at the landscape level.

Visual Resource Management Activities: Over 187,000 acres are designated as VRM Class II (VRM Map 3). Managing surface disturbing activities in these areas would slightly minimize impacts to cultural resources including the Oregon Trail in the long-term. The remaining approximately 297,000 acres have a lower concentration of cultural resources, and would not be provided protection by VRM classification alone.



**Conclusion – Cultural & Tribal Resources:
Alternative C**

Special stipulations on land use authorizations, voluntary compliance, application of SOPs and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. Closures to livestock grazing or motorized vehicle use in the river corridor would provide moderate long-term benefits at the local level. There would be a moderate level of adverse impacts from surface disturbing activities and changes in recreation management landscape-wide. The avoidance area would provide moderate protection from major utility development; however development within the utility corridor could have long-term moderate adverse impacts at the local level. Vegetation treatments would provide moderate short-term adverse impacts and moderate to high long-term benefits to traditional cultural properties. The objective and DFC would be met.

**Cultural and Tribal Resources:
Alternative D**

Idaho Army National Guard Activities: The restriction of vehicle maneuver training in the 22,300-acre Bravo Area to designated routes would have the same impacts as Alternative B. The 4,100 acres of expanded maneuver training (IDARNG Map 5) could potentially have slight moderate adverse long-term impacts to unidentified cultural resources in that area. In addition, there could be an increased likelihood of slight impacts resulting from the displacement of training from the Bravo Area to other areas in the OTA. IDARNG's requirement to manage cultural resources under the MOU plus environmental education and training restrictions imposed by the ICRMP and INRMP would reduce adverse impacts to cultural resources over the long-term.

Livestock Grazing Management Activities: Impacts would be the same as described in Alternative A.

Recreation Management Activities: The impacts would be as described in Alternative C; however, the additional recreation site (Black Butte Boat Access) (Recreation Map 3) would occur in an area with a high potential for cultural values resulting in moderate adverse localized impacts.

Special Designations – ACEC and SRMA: The impacts of special designations would be the same as described in Alternative C for SRMAs. Because the withdrawal language of the NCA-enabling legislation is the same as in the ACEC designation, the loss of the GB-BB ACEC designation would lower the level of management emphasis but would not reduce any of the protection of cultural resources. The area would still be part of the archaeological district. There could be a slight long-term adverse impact from the lowered emphasis and public awareness of the cultural resources in that area.

Surface Disturbing Activities: Impacts would be the same as Alternative C. The impacts of the avoidance area and the existing utility corridor would also be the same as Alternative A.

Transportation Management Activities: The impacts would be the same as described in Alternative A, except an additional 3,200 acres (Transportation Map 5) along the river associated with Wees Bar would be closed. This is an area with important cultural resources including rock art. The additional closure would result in moderate localized beneficial impacts.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Impacts would be the same as described in Alternative C.

Vegetation – Restoration Activities: The impacts would be the same as discussed in Alternative C.



Visual Resource Management Activities: The impacts would be the same as discussed in Alternative C.

Conclusion - Cultural & Tribal Resources: Alternative D

voluntary compliance, application of SOPs and land use restrictions (VRM classification, application of the route designation criteria, avoidance areas, etc.) would have moderate to high beneficial impacts in areas with a high probability of cultural resources. Closures to livestock grazing or motorized vehicle use in the river corridor would provide moderate long-term benefits at the local level. There would be a moderate level of adverse impacts from surface disturbing activities, and changes in recreation management and the low level of VRM protection landscape-wide. Vegetation treatments would provide moderate short-term adverse impacts and moderate to high long-term benefits to traditional cultural properties. The objective and DFC would be met.

4.2.3 Fish and Wildlife

Summary

Alternatives C and D propose the greatest amount of habitat restoration and vegetation treatments that could benefit fish and wildlife. Alternative C also has the most wildlife management projects and includes the elimination of grazing, which would result in the most progress of any alternative towards achieving the objectives and DFC for fish and wildlife in the NCA. Alternative D would make more progress than Alternatives A and B, and slightly less progress than Alternative C towards achieving long-term goals. A combination of upland and riparian restoration projects, teamed with increases in specific wildlife management projects would enable Alternative B to slightly surpass Alternative A towards meeting the objectives and DFC. Compared to the other alternatives, Alternative A would make the least amount of progress towards protecting, enhancing, and expanding fish and wildlife habitat.

Assumptions

- Noxious weed control activities would be in addition to those included as part of a proposed habitat restoration or fuels management project. Restoration and fuels management projects would incorporate noxious weed control activities that would continue as a part of the project(s) for three years. Thereafter, noxious weeds in those areas would be controlled as a part of the normal weed control program.
- Most management actions could have direct impact to wildlife by injuring, killing, or disturbing or displacing wildlife; however, these impacts would be negligible or insignificant across the landscape. Ground dwelling species would be most susceptible to direct impacts.
- BLM would conduct emergency stabilization and rehabilitation (ESR) efforts in the Orchard Training Area (OTA), but would not conduct habitat restoration projects because of potential conflicts or impacts to military training. IDARNG would primarily conduct rehabilitation efforts in the OTA in areas that would not be repeatedly disturbed by military training.
- For analysis purposes, IDARNG activities include: maneuver training, live fire activities, bivouac and dismount training.
- Based upon the rate of response to habitat restoration, short-term would be 5 years for riparian and open water species and 10 years for upland species. Long-term would be greater than 5 years and 10 years respectively.

How Activities Affect Fish and Wildlife Management

Direct Impacts

Fish and Wildlife Management Activities

- Wildlife projects that are species-specific provide short- and long-term beneficial impacts. For instance, guzzlers provide animals with additional surface water in water-limited areas to enhance or make available previously unavailable range. Nest boxes and platforms provide birds with additional nesting and roosting op-



portunities in areas that have limited available sites, and further provide a means of raising young in an environment less prone to predation. Projects may benefit species by providing a previously rare or nonexistent habitat component that makes their range more usable, such as food, water, shelter, and nesting and roosting areas.

Lands and Realty Activities

- Development of large transmission lines in a utility corridor could provide raptor nesting and perching habitat.

Transportation and Recreation Management Activities

- Recreational shooting restrictions would benefit Piute ground squirrels, black-tailed jackrabbits, Nuttall's cottontails, and various other wildlife species by eliminating a mortality factor.

Indirect Impacts

Fish and Wildlife Management Activities

- Actions that increase the population or range of a target species may adversely impact non-target species in the treatment area. Providing nest sites for target species of raptor would increase competition for prey, potentially displacing less competitive non-target predators. Actions that convert one habitat type to another (i.e., converting an upland area to a wetland area in TWMA, creating riparian woodlands) would displace species that depend on the habitat that is being converted. However, conversions that create habitats that are rare, or critical for a wide range of species, would benefit wildlife over the long-term. Over 80% of the wildlife species in the NCA may use riparian or wetland habitats for some portion of their life cycles (Thomas, *et al.* 1979 p2).

Idaho Army National Guard Activities

- Impacts of fires caused by military training activities are discussed in the Vegetation – Fire Suppression section below.

- Training activities can adversely impact wildlife habitat by mechanically disturbing soils and vegetation, reducing perennial plant density and increasing annual invasive exotic species. Although studies have shown that tracked vehicle training does not directly affect short-term survival of Piute ground squirrel populations (Van Horne and Sharpe, 1998), annual dominated communities would have less stable productivity and would be susceptible to wildfire over the short- and long-term (Yensen and Quinney 1992 p 269; Van Horne *et al* 1997 pp 304-305; Steenhof *et al* 2004 p 16) resulting in adverse impacts to ground squirrels (Yensen, *et al.* 1992). However, military related impacts may be reduced by actions taken by IDARNG under their environmental management programs (i.e., revegetation projects, restricted access, erosion control, training site monitoring, etc.)
- Excavation sites, hardened bivouac sites, improved roads or other actions that permanently remove vegetation would result in the long-term loss of habitat and displacement of wildlife.

Lands and Realty Activities

- Acquisition of private and State lands would prevent the potential long-term loss of habitat due to development.
- Consolidation of public land ownership could increase suitable and usable habitat and reduce fragmentation and edge effects. Most private lands in the area are cultivated; however, private lands near expanding population centers are susceptible to residential, commercial, or industrial development. Consolidation would reduce short- and long-term opportunities for offsite impacts from these types of development, such as increased motorized use, noxious weed invasion, chemical overspray, trash and debris, and human caused fires.
- Realigning the current NCA boundary would enhance habitat management in the short- and long-term by: (1) clearly identifying where the boundary exists and



(2) ensuring that areas that become a part of the NCA would receive additional habitat protection and enhancement under the NCA-enabling legislation, limiting soil and vegetation disturbing activities. Public land that is no longer in the NCA would be subject to current BLM regulations, which may not emphasize protection of raptors and their prey to the degree that the NCA designation does.

- Construction, operation and maintenance activities associated with land use authorizations for roads, powerlines, pipelines, etc. would have an adverse impact on wildlife through alteration, fragmentation, or destruction of habitat. Impacts from utility corridor development include long-term disturbance and displacement of soils and vegetation from construction and access roads, which results in additional public access into the area and further fragments wildlife habitat.
- The presence of large utility structures near the Snake River Canyon could enhance roosting and nesting opportunities for raptors; however, the greater density of transmission line wires in the area could pose adverse impacts from additional bird collisions with towers and guy wires (Jalkotzy 1997 pp 101-102).
- Avoidance areas would provide short- and long-term benefits for wildlife species by reducing surface disturbing authorizations.
- Water impoundments would cause short- and long-term adverse impacts to species that require free flowing water (i.e. sturgeon) by degrading and fragmenting habitat. Water temperatures would increase and dissolved oxygen levels would decrease in slack water areas. Impoundments could create physical barriers preventing genetic exchange between populations in free-flowing segments. Daily water level fluctuations could adversely affect species that depend on shallow water or shoreline habitats.

Livestock Grazing Management Activities

- Destruction of habitat (i.e., collapsing burrows, damaging or eliminating shrubs)

concentration or when resources are most susceptible to damage (i.e., soils are saturated, shrubs are not present to provide protection for burrows).

- The trampling and defoliation of palatable species, would have short-term adverse impacts on upland vegetation by reducing plant populations and their ability to reproduce; thereby, limiting resources available to wildlife and the capacity of residual perennial communities to reestablish (Anderson and Holte 1981).
- Piute ground squirrels and other small mammals could be affected by competition for forage from livestock. Piute ground squirrels are significantly affected by lack of green herbaceous vegetation in late winter when they emerge. This effect would be exacerbated in drought years when squirrels may not produce young due to inadequate forage (Smith and Johnson 1985). Small mammal diversity has been found to decrease following grazing activities in grassland habitats due to a decline in plant species diversity (Hanley and Page 1981). An adverse correlation has been shown between grazing intensity and small mammal species diversity, which has been attributed to grazing-induced changes in the vegetation structure (Rosenzweig and Winakur 1969).
- Impacts to big game (pronghorn antelope and mule deer), such as vegetative alterations and forage competition, would have short and long-term adverse consequences. Evidence of adverse effects of grazing on pronghorn populations include reduced fawn production in modified and degraded habitat (Ellis 1970; Kindschy *et al.* 1982).
- Wildlife habitat can be impacted in the long-term by changes in soil structure that affect native vegetation. Soil compaction reduces water infiltration, restricts root depth, and limits seed germination (Hart *et al.* 1993). Mechanical impacts to soils and biologic crusts reduce soil stability and fixed nitrogen availability (Belnap 1995; Eldridge and Green 1994). Soil distur-



bance from hoof shear and bedding create habitat for non-native invasive and noxious weeds species, which likely increase the overall competition between annuals and perennials for limited resources (water, nutrients, space, etc.) (Laycock and Conrad 1981).

- Grazing in riparian areas can result in habitat alterations from the removal of vegetation, trampling, and ground disturbance. This could have adverse impacts for wildlife associated with riparian and open water habitats. Livestock grazing and agriculture along the Snake River can affect specific surface water quality issues including elevated concentrations of sediments and nutrients, habitat degradation from sedimentation and streambank alteration, resulting in elevated temperatures and lower levels of dissolved oxygen (USFWS 1995, p 24).

Transportation and Recreation Management Activities

- Vehicle use restrictions and limiting the number of routes would provide short- and long-term beneficial impacts on wildlife habitat by reducing the disturbance of soils and vegetation, habitat fragmentation, the establishment and spread of noxious weeds, soil compaction, and the altering of vegetative community dynamics. A lack of motorized recreation-related noise and other human intrusions would have short- and long-term beneficial effects on nesting raptors, and other wildlife that inhabit the area.
- Development of recreation sites and roads would result in the loss of habitat in hardened areas with a potential increase in disturbance in the immediate vicinity. Conversely, the concentrated use of a hardened area could have a beneficial effect by reducing the impacts of dispersed recreation.
- Recreational shooting restrictions would benefit raptors by reducing competition for prey species and reducing potential

firearm and other human disturbances within raptor foraging areas.

Vegetation – Fire Suppression Activities

- During multiple fire starts, suppression priorities that emphasize life and property or a particular habitat type (i.e., special status plant (SSP) species) would benefit wildlife species that occur in those areas. Wildlife in lower priority areas could suffer greater mortality and habitat loss.
- Fire suppression efforts could result in short- or long-term localized impacts to wildlife, primarily by altering habitat. Successful suppression efforts have the potential to save large areas of intact shrub or other important habitats that benefit shrub obligate species (Knick and Rotenberry 2000).
- Where suppression efforts are unsuccessful, burned shrub communities would have reduced structural diversity over the short-term and would only recover that diversity over the long-term if ESR and restoration efforts resulted in the re-establishment of shrubs. The loss of forage, escape cover, and thermal cover would cause short-term adverse effects to wildlife. Aquatic species could be adversely affected over the short-term where burns result in increased sediment input into aquatic systems and decreased water quality.
- Grassland species would be adversely affected over the long-term in areas where annual grass-dominated communities burn repeatedly and convert to exotic annual forb (i.e., Russian thistle, mustard) dominated communities.

Vegetation – Fuels Management Activities

- The greatest immediate threat for raptors and associated prey is the conversion of remnant and restored sagebrush steppe habitat into near monocultures of exotic grasses, namely cheatgrass (Pyke 2000, p 43). Increased ignition and fire spread associated with annual grasslands pose a significant threat to wildlife and crucial upland habitat. Fuels treatments would lessen the potential for wildfire spreading



into native stands of vegetation over the short- and long-term. Fuels treatments could result in short-term loss of habitat. Treatments that convert annual grasslands into perennial grasslands could have beneficial long-term effects for many wildlife species.

- Constructing and maintaining fuel breaks would result in adverse impacts to small mammals through habitat destruction and by providing potential expansion corridors for noxious weeds. Reducing fuels through grading, plowing, or intensive grazing along fuel breaks would result in additional short- and long-term impacts through ground disturbance and noxious weed spread. Beneficial long-term impacts to wildlife would result from preventing fire spread and thereby precluding native habitat loss.

Vegetation – Noxious Weed Management Activities

- As native perennial plant communities continue to be degraded through the invasion of noxious weed species, essential prey habitat would be lost or increasingly fragmented, resulting in less stable prey numbers, and increased foraging effort by raptors (Smith and Johnson 1985; Kotler 1984; USDI 1996; Young *et al.* 1972).
- Control of noxious weeds would reduce competition with perennial plants for limited resources (water, nutrients, space, etc.). In the short-term, noxious weed control activities could adversely impact wildlife habitat by affecting non-target desirable perennial vegetation. In the long-term, reductions in weed density would improve the ecological condition of upland and riparian vegetative communities, which would improve wildlife habitat.

Vegetation – Restoration Activities

- Restoration projects that change habitat from annual to perennial communities would help stabilize prey populations which would increase prey availability for golden eagles, prairie falcons, and other raptor species. Studies have shown that

squirrels grow heavier and are more abundant in shrub and perennial grass habitats than in degraded habitats. As such, squirrels in shrub and perennial grass habitats are generally in better physical condition, produce more offspring, and have more stable populations than squirrels living in degraded habitat. Ground squirrel population numbers are less stable in areas dominated by exotic annuals than in shrub areas (Nydegger and Smith 1986; Yensen and Quinney 1992; Yensen *et al.* 1992).

- Conversion from annual to perennial shrub dominated communities would result in the long-term improvement of structural diversity. Shrub obligate species (i.e., Brewer's sparrow) that depend on shrubs for nesting or cover would benefit. Species that can tolerate disturbed or grassland communities (i.e., horned lark, western meadowlark) would not benefit to the same degree as shrub obligates.
- Restoration activities (including chemical treatment to reduce cheatgrass) that disturb soils and/or temporarily eliminate forage will cause at least short-term localized adverse impacts to raptor prey populations and potential short-term impacts to raptors that depend on them.
- Isolated islands of quality shrub and perennial grassland benefit a limited number of animals. Projects that patch together and connect quality habitat would result in highly beneficial impacts for wildlife. Large connected blocks of habitat would decrease edge effects and particularly benefit species with larger habitat area requirements. Restoration of shrubs would increase structural diversity and reduce habitat fragmentation benefiting sagebrush obligate species over the long-term (Knick and Rotenberry 1995). Beneficial long-term impacts could also be realized by increasing the number of habitat islands, resulting in the creation of a network of stepping-stones rather than a large continuous piece of unusable annual grassland monoculture. The largest potential beneficial response to increased hazardous fuels management projects would be from small



mammal populations, which form the base of the NCA food chain, indirectly resulting in beneficial impacts for raptors; however, all levels of wildlife would benefit from these management actions.

Livestock use restrictions in areas subjected to vegetation treatments would have beneficial indirect impacts to wildlife by allowing desirable seeded vegetation to establish. This would also eliminate competition for forage between wildlife and livestock during the duration of the restriction.

- Replacing invasive trees with native trees along riparian corridors would increase the number, diversity, and density of insects, thereby increasing the number and diversity of native birds that feed on insects and the roosting and nesting sites for riparian-dependant birds, including raptors.
- Restoring wetland habitat would increase open-water habitat and potential nesting and resting locations for waterfowl and shorebirds and reduce wetland-dependant bird habitat in the short-term. Functioning wetlands would also benefit aquatic mammals, amphibians, insects, and other invertebrates in the long-term.

Discussion of Impacts by Alternative

Fish and Wildlife: Alternative A

Fish and Wildlife Management Activities: An average of four artificial nest sites would be constructed annually in areas where natural nesting sites are unavailable but could be utilized by a variety raptor species (e.g., osprey, red-tailed hawks, ferruginous hawks, Swainson's hawks, screech owls, and burrowing owls). Artificial nest sites would provide slight local beneficial impacts to raptor species. The construction of nine guzzlers would result in wildlife (small mammals, upland and big game) use of habitat that is unavailable due to lack of surface water. Fencing around guzzler sites would restrict livestock access and related damage, while preventing tumbleweed build-up at the water source. Although the amount of habitat improved at each of the water sites represents only a small local portion

of the NCA, the potential long-term benefits to wildlife would be moderate.

Idaho Army National Guard Activities: Military maneuver training (including bivouac and administrative assembly areas) (IDARNG Map 2) in non-shrub areas would limit rehabilitation activities on approximately 35% of the Maneuver Area. This limitation would cause moderate adverse impacts in the OTA to upland wildlife over the short- and long-term. While remnant shrub communities and associated wildlife would moderately benefit from training restrictions in shrub areas, the restrictions would be voluntary and could change with future shifts in IDARNG conservation philosophy resulting in slight to moderate adverse impacts if training is expanded into shrub communities. The IDARNG continued use of the existing 5-acre excavation site would have no impacts on wildlife or their habitat. Fires would predominantly occur in the OTA Impact Area as a result of live firing activities. Fire intensity and size would be mitigated by fuels management and suppression activities.

Lands and Realty Activities: Approximately 19% of public lands in the NCA are within one-quarter mile of private or State lands. Land consolidations could benefit wildlife at the landscape level, but those that improve the effectiveness of vegetation treatments would benefit upland wildlife slightly at the local level because relatively few treatments are proposed. A 43,000-acre avoidance area (Lands Map 3) would have slight local benefits in the western portion of the NCA. Impacts from large-scale utility developments would be limited to the existing corridor (Lands Map 2), concentrating adverse impacts to a small, localized area.

Livestock Grazing Management Activities: Implementation of S&Gs (Appendix 3) at a landscape level would result in a slight reduction of livestock related impacts to upland dependent species and moderate benefits to riparian dependent species. Grazing restrictions to protect the Idaho springsnail and closures



(3,900 acres) along the Snake River (Grazing Map 4) would moderately benefit fish and riparian dependent wildlife at a landscape level and upland species at the local level. Maintaining a minimum amount of residual litter in annual grass areas would provide minimum food and cover for small mammals and other ground dwelling species at a landscape level.

Transportation and Recreation Management Activities: Approximately 1,600 acres would be closed to motorized vehicles (Transportation Map 2), which would provide moderate localized benefits for riparian and upland wildlife along approximately 8 miles on the north side of the Snake River including Halverson Bar. There would be slight to moderate benefits at the landscape level (431,200 acres) through the application of the route designation criteria.

Vegetation – Fire Suppression Activities: When suppression resources are limited, shrub communities outside of slickspot peppergrass management areas (Special Status Plants Map 2) could be lost to fires. The predicted loss of 50,000 acres of remnant shrub communities (approximately 34% of the remaining shrub communities in the NCA) would have moderate adverse affects on shrub obligate wildlife species at the landscape level. Grass and annual dominated communities (approximately 2/3 of the NCA) would have the lowest priority for suppression and could be subject to repeated fires which could have slight adverse affects on grassland associated species at the landscape level over the long-term.

Vegetation – Fuels Management Activities: Improving and maintaining fuel breaks and treating 10,000 acres (2% of the NCA) of annual grassland would result in slight adverse impacts in treated areas over the short-term and slight localized beneficial impacts to shrub obligate species in adjacent areas over the long-term.

Vegetation – Noxious Weeds Management Activities: Treating only 600 acres annually, with priority given to areas occupied with SSP

species, would leave some weed-infested areas untreated thus resulting in an expansion of noxious weed infestations landscape-wide. Moderate benefits would occur at the local level for wildlife in areas near SSP species habitat.

Vegetation – Restoration Activities: The restoration of approximately 2% of the NCA, primarily in Management Areas 1 and 2 (Management Map 1), would result in a slight beneficial impact at the local level. Degraded habitat in the remainder of the NCA would adversely affect upland wildlife moderately to highly over the long-term. Maintaining or improving Proper Functioning Condition (PFC) would have slight benefits for fish and wildlife at the landscape level. Restored riparian areas would negligibly impact fish and wildlife at the local level (less than 1% of riparian habitat).

Conclusion - Fish & Wildlife: Alternative A

Riparian/Wetland/Open Water Species: Habitat restoration and areas closed to motorized vehicles would have slight to moderate localized benefits primarily for riparian species. Implementation of S&Gs would have moderate benefits at the landscape level for riparian and aquatic species. Overall, there would be slight improvement to riparian and wetland habitats.

Upland Species: Wildlife habitat enhancements and vegetation treatments would provide slight to moderate localized benefits over the long-term. Implementation of S&Gs and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Loss of wildlife habitat due to limited vegetation treatments, IDARNG activities and fire would have moderate adverse impacts at the landscape scale. Overall, wildlife habitat would be lost because the rate of habitat treatments would not keep up with the rate of habitat loss.

The objective and DFC would be met for riparian, wetland and open water species. The



objective and DFC would not be met for upland wildlife because habitat loss would exceed restoration.

Fish and Wildlife: Alternative B

Fish and Wildlife Management Activities: Moderate beneficial impacts of providing artificial nest sites and water sources would occur at the local level as described in Alternative A. Construction of a 20-acre pond at TWMA would adversely impact upland species slightly and moderately benefit migrant shorebirds and waterfowl at the local level. Improvements in water quality would slightly benefit aquatic species at the local level in the Snake River over the long-term. Planting up to 100 acres of woodlands along the Snake River would highly benefit many wildlife species at a local level.

Idaho Army National Guard Activities: Restricting vehicle maneuver training to designated routes in the 22,300-acre Bravo Area would moderately benefit grassland associated species in the short-term and shrub obligates in the short- and long-term. Shrub obligate species would benefit moderately over the long-term by the mandatory avoidance of vehicle maneuver training in shrub stands in the Alpha, Charlie, and Delta areas; however, shrub stands in these areas would remain fragmented at a landscape level because of off-road training in grassland areas. With an additional 20,400 acre Maneuver Area, off-road maneuver training impacts would be spread over a larger area. The area has been previously impacted by wildfires and contains approximately 22% shrub communities. The shrub communities would remain fragmented and the degraded areas would not be available for restoration. Shrub obligate wildlife and Piute ground squirrels would be moderately adversely affected over the long-term because the area would remain in a degraded state. The new Maneuver Area would benefit slightly from additional IDARNG fire suppression capabilities. Slight adverse impacts from excavation sites would occur at the local level (3 sites totaling 105 acres).

Lands and Realty Activities: The effects of land purchases and exchanges on wildlife and their habitat would be the same as Alternative A; however, moderate benefits to upland wildlife from more extensive vegetation treatments would occur, predominately in Management Areas 1 and 2. A 105,000-acre avoidance area would have slight beneficial landscape-wide effects on wildlife and their habitat over the long-term. A utility corridor north of the Snake River Canyon would focus the construction of major utilities in a narrow area, which would result in slight to moderate beneficial and adverse impacts to raptors along the Snake River Canyon at the landscape level over the long-term.

Livestock Grazing Management Activities: Implementation of S&Gs (Appendix 3) and maintaining minimum levels of residual litter in annual grass pastures would have the same impacts as Alternative A. Grazing restrictions to protect the Idaho springsnail, seasonal restrictions and closures (8,600 acres) along the Snake River and on Kuna Butte would benefit fish and riparian dependent wildlife slightly to moderately at a landscape level and upland species at the local level over the long-term. Livestock grazing would be managed in Sandberg bluegrass areas to minimize competition with Piute ground squirrels. This could have short- and long-term moderate beneficial effects by reducing competition for green vegetation during ground squirrels' active periods.

Transportation and Recreation Management Activities: Closing approximately 6,400 acres to motorized vehicles would benefit riparian and upland species slightly to moderately at the local level along approximately 10 miles of one or both sides of the Snake River and C.J. Strike Reservoir. There would be slight to moderate long-term benefits at the landscape level (426,400 acres) through the application of the route designation criteria.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.



Vegetation – Fuels Management Activities: Improving and maintaining fuel breaks and treating 70,000 acres (14% of the NCA) of annual grassland would result in slight adverse impacts in treated areas over the short-term and moderate beneficial landscape impacts to shrub obligate species in adjacent areas over the long-term.

Vegetation – Noxious Weeds Management Activities: Treating 2,500 acres annually, with priority given to areas with occupied SSP habitat, and secondarily to areas that have been restored would leave some weed-infested areas untreated in degraded habitats. In restored areas the likelihood of weed infestations would be reduced. With the increase in perennial communities there would be a corresponding reduction in potential for noxious weed infestations resulting in landscape-wide benefits over the long-term. The level of weed treatments could be sufficient to control noxious weeds in degraded areas over the long-term. Treating 20 miles of riparian and wetland areas would address all areas of the Snake River that are functioning at risk because of weeds and improve other areas that are currently in PFC. This would result in beneficial landscape-wide moderate benefits to riparian and wetland dependent species.

Vegetation – Restoration Activities: Restoration of approximately 10% of the NCA, primarily in Management Areas 1 and 2, would result in short-term moderate impacts to upland wildlife at the local level. Habitat in the remainder of the NCA would be moderately adversely impacted by the lack of restoration over the long-term. Maintaining PFC would have a slight benefit for fish and wildlife at the landscape level. Restored riparian areas would moderately benefit fish and wildlife at a landscape level (20% of riparian habitat).

Conclusion - Fish & Wildlife-Alternative B
Riparian/Wetland/Open Water Species: Areas closed to motorized vehicles would have moderate localized benefits primarily for riparian species. Intermediate levels of habitat restoration implementation of S&Gs would have

moderate benefits at the landscape level for riparian and aquatic species. Overall, riparian and wetland habitats would improve.

Upland Species: Wildlife habitat enhancements, consolidation of ownership, and vehicle closures would provide slight to moderate localized benefits over the long-term. Vehicle restrictions, implementation of S&Gs, application of the route designation criteria and moderate levels of vegetation treatments would provide slight to moderate benefits at the landscape level. There would be large blocks of continuous shrub habitat in Management Areas 1 and 2 over the long-term. Soil disturbing activities including concentrated livestock use, utility development, IDARNG activities, and fire would have slight to moderate adverse impacts at the local level and in much of Management Area 3. The rate of habitat restoration would exceed the wildfire-related loss of remnant shrub habitat. Overall, wildlife habitat would be maintained or moderately improved.

The objective and DFC would be met.

Fish and Wildlife: Alternative C

Fish and Wildlife Management Activities: The impacts of providing artificial nest sites and water sources would be as described in Alternative A. The impacts of creating a 20-acre pond at TWMA and 100 acres of woodlands along the Snake River would be the same as described in Alternative B.

Idaho Army National Guard Activities: Restricting vehicle maneuver training to three designated routes in 18,400 acres of the Bravo Area would be highly beneficial to shrub obligate wildlife and Piute ground squirrels locally. The reduced level of disturbance would allow shrub communities to expand, reducing habitat fragmentation over the long-term. Impacts to shrub obligate species in the Alpha, Charlie, and Delta areas would be as described in Alternative B. However, increased levels of training transferred from the Bravo Area, would have slight to moderate local adverse impacts in the OTA. Grassland associated species would be moderately adversely affected



in the long-term at the local level by increased shrub cover in the Bravo Area. In the remainder of the OTA, greater disturbance levels would cause moderate short- and long-term adverse impacts to grassland associated species. The removal of 3,900 acres of occupied slickspot peppergrass habitat would not impact wildlife in this area. Impacts from the 5-acre excavation site would be as described in Alternative A.

Lands and Realty Activities: Because vegetation treatments would affect all degraded habitat in the NCA outside the OTA, land consolidations would be moderately beneficial to wildlife at the landscape level over the long-term. A 105,000-acre avoidance area would have slight long-term beneficial landscape-wide effects on wildlife and their habitat. The slight adverse and beneficial impacts to wildlife would occur at the local level. The small segments of a utility corridor within the NCA, south of the Snake River Canyon, would have fewer adverse impacts to raptors than the utility corridor north of the Snake River Canyon proposed in Alternative B. Raptors that nest in the Snake River Canyon primarily forage north of the canyon; therefore, there would be a reduced potential for collisions.

Livestock Grazing Management Activities: Removing livestock would result in greater short- and long-term benefits to upland wildlife at the landscape level and riparian wildlife at the local level than Alternatives A and B. Perennial dominated vegetation communities would show the greatest degree of improvement and wildlife occurring in those areas would be highly benefited over the long-term. Wildlife in disturbed communities would benefit slightly from a reduction in competition; however, fuels accumulation in areas where fuels treatments are not occurring could result in a slight potential for increased size or intensity of wildfires, adversely affecting wildlife at the local level over the short- and long-term.

Transportation and Recreation Management Activities: Closing approximately 13,200

acres to motorized vehicles along the Snake River Canyon would moderately benefit riparian species and upland species at the local level over the short- and long-term. Vehicle impacts would be eliminated on one or both sides of approximately 17 miles of river and reservoir shoreline. There would be slight to moderate benefits at the landscape level (419,600 acres) through the application of the route designation criteria.

Vegetation – Fire Suppression Activities: Impacts resulting from fire suppression would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Fuels treatments on degraded areas outside the OTA (100,000 acres) would result in slight localized adverse impacts to grassland species over the short-term. There would be highly beneficial long-term landscape impacts to shrub obligate and grassland species.

Vegetation – Noxious Weeds Management Activities: Treating 4,000 acres annually, with priority given to areas with occupied SSP habitat and restored areas, could allow some weed establishment in degraded areas over the short-term, but could effectively control weeds and be moderately beneficial to upland wildlife over the long-term as more degraded areas receive restoration or fuels treatments. As perennial species become established in treated areas, the likelihood of weed infestations would be reduced. With the increase in perennial communities there would be a corresponding reduction in potential for noxious weed infestations resulting in moderate to high landscape-wide benefits over the long-term. Treating 40 miles of riparian and wetland areas would address all areas of the Snake River that are functioning at risk because of weeds and improve other areas that are currently in PFC. This would be highly beneficial to riparian and wetland dependent species at the landscape level.

Vegetation – Restoration Activities: Restoring up to 130,000 acres (approximately 63% of all degraded areas outside the OTA) would be



highly beneficial to upland species at the landscape level over the long-term. Shrub obligate species, Piute ground squirrels, and associated predators would benefit the most over the long-term from more stable, contiguous shrub habitats. Maintaining PFC would have slight benefit for fish and wildlife at the landscape level over the long-term. Restored riparian areas would be highly beneficial to fish and riparian dependent wildlife at a landscape level (40% of riparian habitat).

Conclusion – Fish & Wildlife: Alternative C

Riparian/Wetland/Open Water Species: Areas closed to motorized vehicle use and developed recreation sites would have moderate long-term localized benefits primarily for riparian species. Substantial habitat restoration and removal of livestock would be moderately to highly beneficial at the landscape level for riparian and aquatic species. The majority of riparian areas would be treated resulting in large blocks of continuous riparian habitat. Overall, the impacts would be highly beneficial at the landscape level.

Upland Species: Wildlife habitat enhancements would provide slight localized benefits over the long-term. Substantial levels of vegetation treatments, motorized vehicle use restrictions, implementation of route designation criteria, and removal of livestock would be moderately to highly beneficial at the landscape level. All degraded upland habitats outside of the OTA would be treated, resulting in large blocks of continuous shrub habitat over the long-term. Utility development and fire would have slight to moderate adverse impacts to wildlife and their habitat at the local scale. IDARNG activities and removal of livestock from annual grasslands would have slight short-term adverse impacts at the landscape scale. Restoration would exceed the loss of habitat due to wildfire or weed infestations. Overall, the impacts would be highly beneficial at the landscape level.

The objective and the DFC would be met.

Fish and Wildlife: Alternative D

Fish and Wildlife Management Activities: The impacts of providing artificial nest sites and a water sources would be as described in Alternative A. The impacts of creating a 20-acre pond at TWMA and 100 acres of woodlands along the Snake River would be the same as described in Alternative B.

Idaho Army National Guard Activities: Restricting vehicle maneuver training in the 22,300 acre Bravo Area would have the same impacts as described in Alternative B. Impacts to grassland species in the Alpha, Charlie, and expanded Delta areas would be greater at the landscape level than in Alternative B. Shrub obligate species would benefit moderately by the mandatory avoidance of vehicle maneuver training in shrub stands in the Alpha, Charlie, and expanded Delta areas; however, shrub stands in these areas would remain fragmented at a landscape level because of continued off-road training in grassland areas. The proposed 4,100-acre expansion area has been previously impacted by wildfires and contains approximately 16% shrub communities. The shrub communities would remain fragmented and the area would not be available for restoration. Shrub obligate wildlife and Piute ground squirrels would be adversely affected moderately at the local level over the long-term because the area would remain in a degraded state. The new Maneuver Area would benefit slightly from additional IDARNG fire suppression capabilities. Slight beneficial impacts from excavation sites would occur at the local level (2 sites totaling 55 acres).

Lands and Realty Activities: The effects on wildlife from land consolidation would be the same as discussed in Alternative C. The impacts associated with avoidance areas and a utility corridor would be as described in Alternative A.

Livestock Grazing Management Activities: Implementation of S&Gs (Appendix 3) and maintaining minimum amounts of residual litter in annual grass pastures would have the same impacts as Alternative A. Grazing re-



strictions and closures (3,900 acres) along the Snake River and on Kuna Butte would moderately benefit fish and riparian dependent wildlife at a landscape level and upland species at the local level over the long-term. Impacts associated with managing livestock to minimize competition for forage with ground squirrels in Sandberg bluegrass areas would be the same as Alternative B.

Transportation and Recreation Management Activities: Closing approximately 4,400 acres to motorized vehicles along the Snake River Canyon would moderately benefit riparian and upland species at the local level along one or both sides of approximately 10 miles of river and reservoir shoreline over the long-term. There would be slight to moderate long-term benefits at the landscape level (428,400 acres) through the application of the route designation criteria.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Treating fuels on 100,000 acres would have the same impacts as described in Alternative C.

Vegetation – Noxious Weeds Management Activities: Impacts resulting from the annual treatment of 4,000 acres of noxious weeds would be the same as Alternative C.

Vegetation – Restoration Activities: Restoring 130,000 acres of degraded small mammal habitat would have the same impacts as Alternative C. Impacts resulting from the restoration of 40 miles of riparian and wetland wildlife habitat would be the same as Alternative C.

Conclusion Fish & Wildlife – Alternative D
Riparian/Wetland/Open Water Species: Closures to motorized vehicles and developed recreation sites would have moderate local benefits primarily for riparian species. Substantial habitat restoration and changes in live-

stock management would be moderately to highly beneficial at the landscape level for riparian and aquatic species. The majority of riparian areas would be treated resulting in large blocks of continuous riparian habitat. Overall, the impacts would be highly beneficial at the landscape level.

Upland Species: Wildlife habitat enhancements would provide slight localized benefits over the long-term. Implementation of S&Gs and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Vegetation treatments would be highly beneficial at the landscape level. All degraded upland habitats outside of the OTA would be treated resulting in large blocks of continuous shrub habitat over the long-term. The loss of wildlife habitat due to fire would have moderate adverse impacts at the local scale. Soil disturbing activities including concentrated livestock use, IDARNG activities, and fire would have slight to moderate long-term adverse impacts at the local level. Overall, impacts would be moderately to highly beneficial at the landscape level.

The objective and DFC would be met.

4.2.4 Geology

Geological resources would not be affected by any of the RMP alternatives. See Section 2.2.4 in Affected Environment Chapter 2.

4.2.5 Paleontology

Paleontological resources would not be affected by any of the RMP alternatives. See Section 2.2.5 in Affected Environment Chapter 2.

4.2.6 Special Status Species

Special status animal species include all Idaho Type 2 and Type 3 special status animal species found in the NCA (Appendix 4).

4.2.6.1 Special Status Animals

Special status animal species (SSA) are grouped in this section by their primary habitat associations. Habitats within are divided into



Upland, Riparian, and Open Water (including riverine) groups (Table 4.1). Upland habitats are characterized by sagebrush, salt desert shrub, and grasslands. The upland habitat group is broken into two subgroups (ground dwellers and highly mobile) that reflect individual species ability to cope with rapid ground disturbance (i.e. restoration, fuels management). Riparian habitats, as identified for this section, are characterized by saturated or wetted areas adjacent to water. Open Water habitats as identified by this section include the Snake River, CJ Strike Reservoir, and all ponds located in the NCA. These groups were

created to provide a way of analyzing effects and impacts without repeating common statements for each individual species. Species may occur in more than one group; this is because that particular species is largely associated with multiple habitat types. Endangered and threatened species are analyzed individually (Idaho springsnail, bald eagle, and yellow-billed cuckoo). Under each individual threatened and endangered species, only the change agents that affect each species are analyzed. The conclusions by alternative for endangered and threatened animal species are included in the conclusions for SSAs.

Special Status Table 4.1. Special Status Animal Species Habitat Associations.

Upland Group	Riparian Group	Open Water Group
Ground Dwellers (GD)	Common Garter Snake Northern Leopard Frog Western Toad Woodhouse’s Toad Bald Eagle Northern Goshawk Lewis’ Woodpecker Yellow-billed Cuckoo Olive-sided Flycatcher Willow Flycatcher Spotted Bat	Idaho Springsnail Redband Trout White Sturgeon Northern Leopard Frog Western Toad Woodhouse’s Toad American White Pelican Trumpeter Swan Black Tern
Longnose Snake Western Ground Snake Great Basin Collared Lizard (Mohave Black Collared Lizard) Pygmy Rabbit		
Highly Mobile		
Peregrine Falcon Prairie Falcon Sage-Grouse Ferruginous Hawk Loggerhead Shrike Sage Sparrow Brewer’s Sparrow Spotted Bat		

Summary

Alternative C proposes the largest amount of habitat restoration, annual grassland conversion, and specific wildlife management projects; in combination with the elimination of grazing, it would make the most progress of any alternative toward achieving SSA objectives. Alternative D would make more progress than Alternatives A and B, and slightly less progress than Alternative C toward achieving the long-term goals for Idaho springsnails, bald eagles, yellow-billed cuckoos, and other SSAs in the NCA. A combina-

tion of upland and riparian restoration projects, teamed with increases in specific wildlife management projects would enable Alternative B to slightly surpass Alternative A in meeting the objectives for Idaho springsnails, bald eagles, yellow-billed cuckoos, and other SSAs in the NCA. Compared to the other alternatives, Alternative A would make the least amount of progress toward protecting, enhancing, and expanding Idaho springsnail, bald eagle, yellow-billed cuckoo, and other SSA habitat in the NCA.



Assumptions

- The Idaho S&Gs process would manage livestock in a manner that maintain viable populations of special status animal species.
- BLM would conduct ESR efforts in the OTA, but would not conduct habitat restoration projects because restored areas would not be protected from subsequent military training activities. IDARNG would conduct rehabilitation efforts in the OTA only in areas that would not be repeatedly disturbed by military training.
- IDARNG impacts in the OTA would be landscape-wide if they affect the majority of the OTA and localized if they affect only a portion of the OTA.
- For analysis purposes, IDARNG activities include: maneuver training, live fire activities, bivouac and dismount training.
- Short-term for upland species would be 10 years and for riparian and open water species would be 5 years. This is based upon the rate of response to habitat restoration.

How Activities Affect Special Status Animal Species

- How activities affect special status animal species would be the same as those identified in Fish and Wildlife Section 4.2.3.

Discussion of Impacts by Alternatives

Endangered Species - Idaho Springsnail: Alternative A

Fish and Wildlife Management Activities: Management actions that would improve water quality or reduce sedimentation or habitat fragmentation would benefit springsnails. No management actions are directed at the control or removal of the New Zealand mudsnail, a primary competitor of the springsnail. Flow regimes in the Snake River are regulated by other entities and will not be addressed here. Maintaining or improving the proper functioning condition (PFC) of riparian areas along the Snake River could benefit springsnails slightly at the landscape level.

Livestock Grazing Management Activities:

Adverse impacts from livestock grazing could occur at the local level on up to 11 miles of the Snake River that are potentially accessible to livestock (6.744 miles of river and reservoir frontage in 10 allotments (USDI 2005a), 20 ft. (0.004 miles) in the Bruneau Arm Allotment (USDI 2004a), and up to 4.3 miles in the Con Shea Allotment). Lacking scientific evidence to the contrary, it is assumed that fewer livestock in areas along the Snake River and its tributaries will result in less soil disturbance, more residual standing litter, greater sediment capture, and reduced erosion and runoff. Direct benefits include reduced numbers of snails being crushed by livestock wading in and along the shoreline. Indirect benefits stem from fewer snails, eggs, and snail habitat being buried under or adversely affected by silt. We assume these benefits to be landscape-wide, since only about one-eighth of existing riparian areas are now available for livestock grazing.

Transportation and Recreation Management Activities:

Through the application of the route designation criteria, there could be slightly beneficial localized impacts to springsnails over the long-term. A closure to motorized vehicles along approximately 4.5 miles on the north side of the Snake River would slightly benefit springsnails at the local level.

Vegetation – Fire Suppression Activities:

Fire suppression priorities that focus on remnant shrub communities within or near the Snake River Canyon would slightly benefit Idaho springsnails at the landscape level. In contrast, if large non-shrub areas within or near the Snake River Canyon are allowed to burn in an effort to save shrub communities, Idaho springsnails would be moderately, adversely affected primarily at the local level. The majority of non-shrub areas in the canyon occur in an 18-mile segment on the south side of the river between Wild Horse Butte and Con Shea Basin. Protecting slickspot peppergrass communities would not benefit springsnails and could adversely impact them when their pro-



tection precludes the suppression of fires adjacent to the Snake River.

Vegetation – Restoration Activities: Riparian restoration projects could adversely affect springsnails slightly over the short-term and benefit them slightly over the long-term at the local level.

**Endangered Species – Idaho Springsnail:
Alternative B**

Fish and Wildlife Management Activities: Construction of a 20-acre pond at TWMA could slightly adversely affect springsnails at the local level over the short-term and moderately benefit springsnails over the long-term by improving water quality.

Livestock Grazing Management Activities: Impacts would be the same as Alternative A.

Transportation and Recreation Management Activities: Application of the route designation criteria would have the same impacts as identified in Alternative A. Closures to motorized vehicles along approximately 5.2 miles on both sides of the Snake River near Wees Bar and Halverson Bar and about 1.5 miles along the south side of the C.J. Strike Reservoir would slightly benefit springsnails at the local level. Recommending 21.5 miles of the Snake River as eligible for protection under the W&SR Act, would if approved by Congress, protect springsnail habitat from impoundments resulting in moderate to highly beneficial impacts at the landscape-level over the long-term. Should the area not be designated the impacts would be the same as Alternative A.

Vegetation – Fire Suppression Activities: Impacts would be the same as Alternative A.

Vegetation – Restoration Activities: Restoring 20 miles of riparian habitat would primarily impact springsnails where the restoration occurs in free-flowing segments and could be slightly beneficial at the landscape level over the long-term.

**Endangered Species – Idaho Springsnail:
Alternative C**

Fish and Wildlife Management Activities: Impacts resulting from the construction of a 20-acre pond at TWMA would be the same as Alternative B. Maintaining or improving the proper functioning condition of riparian areas would be the same as described in Alternative A.

Livestock Grazing Management Activities: Removal of livestock grazing would have moderate short- and long-term benefits to springsnails at the landscape level.

Transportation and Recreation Management Activities: Application of the route designation criteria would have the same impacts as identified in Alternative A. Closures to motorized vehicles along approximately 5.2 miles on both sides of the Snake River, 7.7 miles on the north side of the river, and 1 mile in the Bruneau Arm would benefit springsnails slightly at the local level over the long-term.

Vegetation – Fire Suppression Activities: Impacts would be the same as Alternative A.

Vegetation – Restoration Activities: Restoring 40 miles of riparian habitat would primarily impact springsnails slightly where the restoration occurs along free-flowing segments and would be slightly to moderately beneficial at the landscape level over the long-term.

**Endangered Species – Idaho Springsnail:
Alternative D**

Fish and Wildlife Management Activities: Impacts resulting from the construction of a 20-acre pond at TWMA would be the same as Alternative B. Maintaining or improving the PFC of riparian areas would be the same as described in Alternative A.

Livestock Grazing Management Activities: Impacts would be the same as Alternative A.

Transportation and Recreation Management: Application of the route designation criteria would have the same impacts as identified in



Alternative A. Closures to motorized vehicles along approximately 5.2 miles on both sides of the Snake River and 1 mile in the Bruneau Arm would benefit springsnails slightly at the local level over the short-and long-term. The impacts of recommending 49 miles of the Snake River as not eligible for protection under the W&SR Act would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: Impacts would be the same as Alternative A.

Vegetation – Restoration Activities: Impacts resulting from 40 miles of riparian restoration would be the same as Alternative C.

**Threatened Species – Bald Eagle:
Alternative A**

Vegetation – Restoration Activities: Restoring desirable trees to 1 mile of riparian habitat would slightly benefit eagles over the long-term at the local level. Maintaining or improving the PFC of riparian areas would slightly benefit bald eagle prey species at the landscape level over the long-term.

**Threatened Species – Bald Eagle:
Alternative B**

Vegetation – Restoration Activities: Restoring desirable trees to 20 miles of riparian habitat would moderately benefit eagles over the long-term at the landscape level. Maintaining or improving the functioning condition of riparian areas would affect eagles as described in Alternative A.

**Threatened Species – Bald Eagle:
Alternative C**

Vegetation – Restoration Activities: Restoring desirable trees to 40 miles of riparian habitat would highly beneficial to eagles over the long-term at the landscape level. Maintaining or improving the functioning condition of riparian areas would affect eagles as described in Alternative A.

**Threatened Species – Bald Eagle:
Alternative D**

Vegetation – Restoration Activities: Impacts of habitat restoration and maintaining or improving PFC would be the same as described in Alternative C.

**Candidate Species – Yellow-billed Cuckoo:
Alternative A**

Vegetation – Restoration Activities: Restoring 1 mile of riparian trees would provide slight local long-term benefits to yellow-billed cuckoos. Maintaining or improving the functioning condition of riparian areas would slightly benefit cuckoos landscape-wide over the long-term.

**Candidate Species – Yellow-billed Cuckoo:
Alternative B**

Fish and Wildlife Management Activities: Creating 100 acres of riparian woodlands would be slightly beneficial at the local level by providing nesting habitat for 2-10 pairs of yellow-billed cuckoos (Laymon 1998) over the long-term.

Vegetation – Restoration Activities: Restoring up to 20 miles of riparian woodlands would result in slight to moderate long-term benefits for migrating and dispersing yellow-billed cuckoos at the local level.

**Candidate Species – Yellow-billed Cuckoo:
Alternative C**

Fish and Wildlife Management Activities: Benefits from constructing 100 acres of woodlands would be the same as Alternative B.

Vegetation – Restoration Activities: Restoring up to 40 miles of riparian habitat would be the same as Alternative B, but at the landscape level. This level of restoration could also provide nesting habitat depending on the size of and connectivity between the areas being restored.



**Candidate Species – Yellow-billed Cuckoo:
Alternative D**

Fish and Wildlife Management Activities: Benefits from constructing 100 acres of woodlands would be the same as Alternative B.

Vegetation – Restoration Activities: Benefits from restoring 40 miles of riparian and wetlands habitat would be the same as Alternative C.

**Special Status Animal Species:
Alternative A**

Fish and Wildlife Management Activities: Maintaining or improving the PFC of riparian areas would slightly benefit SSA at the landscape level. Constructing an average of four artificial nest sites annually in areas where natural nesting sites are unavailable could result in moderate local benefits for ferruginous hawks and other SSAs over the short- and long-term. Providing water sources could slightly benefit upland SSA at the local level by providing access to habitat that is otherwise suitable, but seasonally unavailable due to a lack of surface water. Planting trees at these guzzler sites could provide slight long-term local benefits through perching and nest sites for raptors and other bird species.

Idaho Army National Guard Activities: Moderate adverse impacts of vehicle maneuver training would occur at the landscape level in non-shrub habitats (up to 35% of the OTA Maneuver Area) over the short- and long-term. Shrub habitats would be fragmented in the remainder of the OTA and would provide less desirable habitat for shrub obligate SSS (i.e., loggerhead shrike, sage sparrow, Brewer's sparrow) over the long-term. Changes in training priorities that result in further shrub loss or habitat degradation would have moderate adverse impacts to SSS in the long-term. Use of a 5-acre excavation site would have no additional impacts on SSA or their habitat.

Lands and Realty Activities: Consolidating public land ownership through purchase or exchange would allow BLM to acquire important habitat, which could reduce habitat frag-

mentation in the short- and long-term; however, it would not have direct impacts for any one specific SSA. Assuming that acquired land would be restored; there is the potential for creating suitable upland habitat, resulting in slight benefits over the long-term for some upland SSA at the local level. A 43,000-acre avoidance area would have slight beneficial long-term effects on upland SSA and their habitat at the local level. Continuation of the existing utility corridor would ensure that wildlife impacts from future large utility developments are restricted to a small, localized area.

Livestock Grazing Management Activities: Upland GD SSA could experience slight short-term adverse impacts from livestock mechanical damage, resulting in burrow destruction, which could lead to incidental mortality for western ground and longnose snakes. Effective management from the S&Gs process (Appendix 3) could result in slight to moderate long-term benefits across the landscape; however, SSS in areas of concentrated livestock use would suffer slight to moderate short- and long-term adverse impacts locally (watering and salting areas). Livestock utilization of herbaceous vegetation could have moderate adverse impacts to Piute ground squirrels through competition for available forage over the short- and long-term. Grazing restrictions and closures in grazing allotments along the Snake River would slightly benefit riparian and open water SSA (approximately 10.2 miles along one side of the Snake River and C.J. Strike Reservoir would be closed), especially western and Woodhouse's toads, northern leopard frogs, and common garter snakes, at the landscape level from undisturbed riparian vegetative communities. Slight adverse impacts could occur in local areas (up to approximately 11 miles) where livestock would have access to the river over the long-term.

Transportation and Recreation Management Activities: Elimination of motorized recreation-related noise, ground disturbance, and erosion would have short- and long-term moderately beneficial effects for prairie falcons,



peregrine falcons, western ground snakes, longnose snakes, and common garter snakes at the local level (4 miles of cliff habitat and 7.7 miles of riparian habitat). In addition, a lack of soil disturbance from motorized vehicles would reduce weed infestations, potentially reducing wildfire ignitions, and improving vegetation community structure, function, and condition, which would have a slight to moderate long-term beneficial effect on associated SSA habitat. Application of the route designation criteria in SSA habitats would moderately benefit SSA at the landscape level (431,200 acres) over the short-and long-term. Expansion of two recreation sites would not keep up with recreation use; therefore, impacts from dispersed recreation could increase slightly to moderately over the long-term primarily in riparian areas.

Vegetation – Fire Suppression Activities: Fire suppression priorities would moderately benefit shrub-obligate SSA at the landscape level. When suppression resources are limited, SSA would be adversely affected at the landscape level over the long-term when shrub communities outside of slickspot peppergrass management areas are lost to fires. Impacts to riparian dependent SSA would occur at the local level over the short-term because of the relatively rapid post-fire recovery of riparian areas.

Vegetation – Fuels Management Activities: Short-term adverse impacts for GD SSA such as habitat destruction could result from ground disturbing activities. Initially, fuels management projects would have slight short-term adverse impacts on upland SSA habitat at the local level. Over the long-term, once perennial vegetation establishes and more acres are treated, moderate beneficial impacts would occur at the local level in Management Areas 1 and 2. The majority of the NCA would remain in a degraded state dominated by annual grasses and susceptible to frequent wildland fires. Improving and/or maintaining existing fuel breaks (136 miles) and periodically reducing accumulated fuels along the breaks would result in slight, short-term local adverse im-

pacts for upland SSA in the treated areas and moderate beneficial impacts for SSA in adjacent areas. Although the majority of fuel breaks are associated with disturbed vegetation communities, reduced fires in these areas could benefit the prey base of some SSA raptors at the landscape level.

Vegetation – Noxious Weeds Management Activities: Reducing localized degradation and fragmentation of native habitat would result in slight beneficial impacts for SSA in the short-and long-term. Occupied SSP species and riparian habitats would have priority for noxious weed treatment, which would leave the majority of the NCA susceptible to weed infestations, which would slightly adversely affect SSA at the landscape level.

Vegetation – Restoration Activities: Restoring shrubs and perennial grasslands would improve, increase, and stabilize available habitat for small mammals, thus resulting in more stable prey populations and more prey availability for special status raptor species. Slight adverse and beneficial short-term impacts on GD SSA would occur at the local level, primarily in Management Area 1 and to a limited degree in Management Area 2. Sage and Brewer's sparrows, as well as other upland SSA would realize moderate long-term benefits at the local level from enhanced shrub and nesting habitat. Special status snakes could moderately benefit from increased shrub habitat providing greater protection of burrows from livestock trampling and motorized vehicle disturbance over the long-term. Habitat in Management Area 3 and the majority of Management Area 2 would not be restored. Riparian habitat restoration would result in slight short-term adverse impacts and long-term moderate benefits to riparian and open water SSA at the local level (1% of riparian habitat). Maintaining or improving riparian functioning condition would slightly benefit riparian and open water SSA at the landscape-level over the short- and long-term. Restoring wetlands at the TWMA would result in moderate to high local level benefits over the long-term for SSA. Northern leopard frogs and western and



Woodhouse's toads would experience slight short-term adverse and moderate long-term beneficial impacts over the short- and long-term. Removing dense stands of decadent vegetation would result in moderate short- and long-term local benefits through an increase in open water and potential nesting and/or resting locations for American white pelicans, black terns, and trumpeter swans. Slight benefits would be realized by any SSA that forages over open-water at the TWMA.

Conclusion – Special Status Animal Species: Alternative A

Riparian/Wetland/Open Water Species: Fish and wildlife management actions and habitat restoration could have slight adverse local impacts over the short-term to SSA including Idaho springsnails; however, these actions and vehicle closures would have slight to moderate localized benefits over the long-term. Implementation of S&Gs could have slight to moderate benefits at the landscape level for riparian and aquatic species. Habitat for riparian and open water species would be maintained at the landscape level, but enhanced only at the local level.

Upland Species: Wildlife habitat enhancements, land consolidation, and vegetation treatments would provide slight to moderate localized benefits over the long-term. Implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. IDARNG activities, a lack of adequate recreation facilities, the loss of SSA habitat due to limited vegetation treatments and fire would have slight to moderate adverse impacts at the landscape scale. The amount of upland habitat loss would exceed the amount of habitat maintained or enhanced.

The objective for SSAs and DFC for Fish and Wildlife would not be met because of the net loss of shrub habitat and limited riparian habitat restoration.

**Special Status Animal Species:
Alternative B**

Fish and Wildlife Management Activities: The impacts of providing artificial nest sites and water sources would occur at the local level as described in Alternative A. Local SSA could experience slight short-term adverse impacts from the construction of a 20-acre pond at TWMA. Moderate short and long-term benefits would include increased open water access, nesting habitat, and shoreline foraging for American white pelicans, black terns, and trumpeter swans. Northern leopard frogs and western and Woodhouse's toads would experience slight short-term adverse and moderate long-term beneficial impacts over the short- and long-term. Planting woodlands along the Snake River would result in moderate benefits for SSA (i.e., olive-sided and willow flycatcher, Lewis' woodpecker, and northern goshawk) at a local scale, and slight benefits at a landscape level over the long-term. Maintaining or improving the PFC of riparian areas would affect SSA as described in Alternative A.

Idaho Army National Guard Activities: Restricting vehicle maneuver training to designated routes in the 22,300 acre Bravo Area would benefit shrub obligate SSA moderately in 26% of the OTA. Shrub communities in the Bravo Area could naturally expand in the long-term. Shrub obligate species would benefit moderately at the local level by the mandatory avoidance of vehicle maneuver training in shrub stands including the 20,400-acre expansion area. However, habitat fragmentation caused by off-road training in grassland areas would result in slight to moderate adverse long-term impacts to shrub obligate species. The expansion area has been previously impacted by wildfires and contains approximately 22% shrub communities. Grassland areas in designated off-road maneuver training areas would be adversely impacted in the short-and long-term.

Lands and Realty Activities: Because vegetation treatments would affect a majority of degraded habitats outside the OTA in Manage-



ment Areas 1 and 2, land consolidations would moderately benefit wildlife over the long-term at the landscape level. A 105,000-acre avoidance area would slightly benefit SSA at the landscape level. The reduced probability of major transmission line development would slightly benefit riparian, open water, and cliff nesting species in the Snake River Canyon over the short-and long-term. A utility corridor north of the Snake River Canyon would focus the construction of major utility facilities, which would provide additional nesting, perching, and hunting platforms for ferruginous hawks. Increased collisions with transmission lines would be a potential slight adverse consequence at the landscape level. Impacts from pipelines would be slight adverse short-term and localized during construction and maintenance activities.

Livestock Grazing Management Activities: Grazing restrictions and closures on 8,600 acres would moderately benefit riparian and open water SSA at the landscape level (approximately 14.6 miles along one side of the Snake River and C.J Strike Reservoir) and upland SSA at the local level along the Snake River and in the Kuna Butte area over the long-term. Slight short- and long-term adverse impacts could occur in local areas (up to approximately 11 miles) where livestock would have access to the river. Managing livestock use in Sandberg bluegrass areas to minimize competition with Piute ground squirrels would moderately benefit prairie falcons and other upland SSA at the local level over the short-and long-term. Upland livestock grazing in the remainder of the NCA would have the same impacts as described in Alternative A.

Transportation and Recreation Management Activities: Elimination of motorized recreation-related impacts would be as described in Alternative A; however, impacts from vehicles would be eliminated on both sides of the Snake River for up to 5.7 miles of riparian habitat and 15.1 miles of cliff habitat and on one side of the river for 3.5 miles of riparian habitat and 4.3 miles of cliff habitat. Through the application of the route designation crite-

ria, buffers that reduce or eliminate vehicle use in SSA habitats would moderately benefit SSA at the landscape level (426,400 acres) over the long-term. Development of the Initial Point and Three Pole recreation sites would impact upland SSA moderately at the local level. As in Alternative A, the level of recreation development would not be expected to meet recreation demand; therefore, impacts from dispersed recreation could increase slightly to moderately over the long-term primarily in riparian areas at the landscape level.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Slight short-term adverse impacts to upland SSA would occur primarily at the local level; however, because 42% of disturbed habitat outside the OTA in Management Areas 1 and 2 (or 24% of all disturbed areas in the NCA) would be treated, moderate long-term beneficial impacts would occur at the landscape level. The greatest potential beneficial response to increased hazardous fuels management projects would be from small mammal populations, which form the base of the NCA food chain, resulting in moderate long-term beneficial impacts for special status raptors in the form of more available prey. SSA habitat in Management Area 3 would be vulnerable to repeated wildland fires because of the limited amount of fuels treatments. Maintaining 136 miles of existing fuel breaks, and constructing eight additional miles would have the same impacts as Alternative A; however, new construction areas could have slight short-term adverse impacts for GD SSA. Impacts from loss of habitat would occur at the local level and moderate benefits from reduced acres burned could occur at the landscape level.

Vegetation – Noxious Weeds Management Activities: Upland SSA in Management Areas 1 and 2 would moderately benefit from weeds treatments; however, potential increases of weeds in untreated areas could slightly to moderately adversely affect upland SSA over



the long-term primarily in Management Area 3. Treating 20 miles of riparian and wetland areas would address all areas of the Snake River that are functioning at risk because of weeds and improve other areas that are currently in PFC. This would result in moderate long-term landscape-wide benefits to riparian and open water SSA.

Vegetation – Restoration Activities: Restoring degraded habitats (50,000 acres) outside the OTA primarily in Management Areas 1 and 2 (17% of all degraded areas in the NCA) would adversely impact upland SSA slightly at the local level over the short-term and moderately beneficial at the landscape level over the long-term. Restoration activities in Management Area 3 would be limited and as such, SSA would be adversely impacted over the long-term. Riparian habitat restoration would result in slight short-term adverse impacts and moderate long-term benefits to riparian and open water SSA at the landscape level (20% of riparian habitat). Maintaining or improving riparian functioning condition would have the same impacts as described in Alternative A. Restoring 80 acres of wetlands at the TWMA would have the same impacts as described in Alternative A.

Conclusion – Special Status Animal Species: Alternative B

Riparian/Wetland/Open Water Species: Fish and wildlife management actions could have slight adverse local impacts over the short-term to SSA including Idaho springsnails, but these actions and vehicle closures would have slight to moderate local or landscape level benefits for Idaho springsnails, bald eagles, and yellow-billed cuckoos over the long-term. Implementation of S & G and vegetation treatments would have slight to moderate benefits at the landscape level for riparian and aquatic species. Overall, SSA habitat would be maintained or moderately improved.

Upland Species: Wildlife habitat enhancements, restrictions on IDARNG activities in shrub habitats, grazing closures, and recreation developments would provide slight to moder-

ate localized benefits over the long-term. Land consolidation, implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Vegetation treatments could have slight to moderate localized adverse impacts over the short-term, but would have moderate benefits at the landscape level over the long-term. IDARNG off-road maneuver training, a lack of adequate recreation facilities, and the loss of SSA habitat due to fire and noxious weeds would have slight to moderate adverse impacts at the landscape scale. Overall, impacts would be slight to moderately adverse at the landscape level primarily in Management Area 3 and in the OTA over the long-term.

The objective for SSA and DFC for Fish and Wildlife would be met for riparian, wetland and open water species but only partially met for upland species because upland habitat improvements would only slightly exceed habitat loss.

**Special Status Animal Species:
Alternative C**

Fish and Wildlife Management Activities: The impacts of maintaining or improving riparian functioning condition and providing artificial nest sites and water sources would be as described in Alternative A. The impacts of creating a 20-acre pond at TWMA and 100 acres of woodlands along the Snake River would be the same as described in Alternative B.

Idaho Army National Guard Activities: Restricting vehicle maneuver training to three designated routes in 18,400 acres of the Bravo Area would highly benefit upland SSA, especially shrub obligate species. Shrub communities in the Bravo Area would have an opportunity to naturally expand in the long-term. Shrub obligate species in the Alpha, Charlie, and Delta areas would benefit moderately at the local level from mandatory avoidance of vehicle maneuver training in shrub stands. However, increased levels of training (transferred from the Bravo Area), lack of restoration, and continued fragmentation of shrub



communities would have moderate adverse long-term impacts to upland SSA within the OTA. The removal of 3,900 acres of occupied slickspot peppergrass habitat would reduce IDARNG environmental protection and initial attack fire response in that area; however, any reductions in protection and fire suppression response would be compensated for by increased BLM management and response, which identifies slickspot peppergrass habitat as a high priority for protection. There would be no impacts to SSA in this area. Impacts from the 5-acre excavation site would be as described in Alternative A.

Lands and Realty Activities: Because vegetation treatments would affect all degraded habitat in the NCA outside the OTA, land consolidations would highly benefit SSA over the long-term at the landscape level. A 163,600-acre avoidance area would benefit SSA slightly at the landscape level over the long-term. The reduced probability of major transmission line development would slightly benefit riparian, open water, and cliff nesting species in the Snake River Canyon. A utility corridor south of the Snake River Canyon, and primarily outside of the NCA, would provide additional nesting, perching, and hunting platforms for ferruginous hawks and would have less adverse impacts on SSA than the corridor proposed in Alternative B. Prairie falcons primarily forage north of the Snake River Canyon; therefore, there would be a lower potential for collisions compared to Alternative B. Impacts from pipelines would be adverse short-term and localized during construction and maintenance activities.

Livestock Grazing Management Activities: There would be no livestock grazing, and therefore no grazing-related impacts to SSA. A lack of grazing would result in a general improvement in shrub/bunchgrass habitat condition and quality over the long-term, which would be highly beneficial for SSA. A lack of grazing would also allow hazardous fuels to accumulate, which could result in larger and more intense wildfires that have locally significant impacts on SSA and their habitat. Ex-

tensive vegetation treatments would compensate for some of the effects of increased fuels over the long-term. Reducing fuels along fuel breaks through grading, plowing, intensive grazing, or other means would reduce fire intensity, rate of fire spread, and associated habitat loss.

Transportation and Recreation Management Activities: Elimination of motorized recreation-related impacts would have moderate landscape-wide long-term benefits for prairie falcons as well as upland SSA that inhabit the Snake River Canyon and riparian and open water. Impacts from vehicles would be eliminated on both sides of the Snake River for up to 5.7 miles of riparian habitat and 15.1 miles of cliff habitat and on one side of the river for 10.2 miles of riparian habitat and 37.3 miles of cliff habitat. Through the application of route designation criteria, buffers that reduce or eliminate vehicle use in special status animal habitats would moderately benefit SSA at the landscape level (419,600 acres) over the long-term. Development of four recreation sites would moderately impact upland, riparian, and open water SSA at the local level. The level of recreation development would meet much of the recreation demand; therefore, impacts from dispersed recreation could decrease moderately over the long-term at the landscape level.

Vegetation – Fire Suppression Activities: Impacts resulting from fire suppression would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Slight short-term adverse impacts to upland SSA would occur primarily at the local level; however, because up to 48% of disturbed habitat outside the OTA (or 35% of all disturbed areas in the NCA) would be treated, long-term impacts would be highly beneficial at the landscape level. Fuel break maintenance and construction would have the same impacts as Alternative B, except that four additional miles would be constructed.



Vegetation – Noxious Weeds Management

Activities: Upland SSA could be slightly to moderately adversely affected by local increases in weeds (primarily in Management Area 3) over the short-term where areas are not treated because of priorities to treat SSP habitat and restored areas. Upland SSA would moderately to highly benefit at the landscape level over the long-term as perennial vegetation becomes established in restored and fuels treatment areas. Treating 40 miles of riparian and wetland areas would address all areas of the Snake River that are functioning at risk because of weeds and improve other areas that are currently in PFC. This would be highly beneficial to riparian and open water SSA at the landscape level.

Vegetation – Restoration Activities: Restoring up to 68% of degraded habitats outside the OTA (or 45% of all degraded areas in the NCA) would slightly impact upland SSA at the local level over the short-term and would be highly beneficial at the landscape level over the long-term (as described in Alternative A). In combination with fuels treatments, habitat restoration would affect all degraded habitats outside the OTA resulting in short- and long-term beneficial impacts to upland SSA habitat. Riparian habitat restoration would result in slight, short-term adverse impacts and long-term benefits to riparian and open water SSA at the landscape level (40% of riparian habitat). At the landscape level, maintaining or improving riparian functioning condition would moderately benefit riparian and open water SSAs. Restoring 80 acres of wetlands at the TWMA would have the same impacts as described in Alternative A.

**Conclusion Special Status Animal Species:
Alternative C**

Riparian/Wetland/Open Water Species: Fish and wildlife management actions could have slight adverse local impacts over the short-term to SSA including Idaho springsnails, but these actions and vehicle closures would have slight to moderate local or landscape level benefits for Idaho springsnails, bald eagles, and yellow-billed cuckoos over the long-term.

Vegetation treatments and removal of livestock would be moderately to highly beneficial at the landscape level for riparian and aquatic species. Overall, the impacts would be highly beneficial at the landscape level.

Upland Species: Wildlife habitat enhancements and recreation developments would result in slight to moderate localized benefits and restrictions on IDARNG activities in shrub habitats would be moderately or highly beneficial for remnant shrub stands over the long-term. Land consolidation and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Removal of livestock would be highly beneficial to SSA in perennial communities and slightly beneficial to SSA in annual communities over the long-term. Vegetation treatments could have slight to moderate localized adverse impacts over the short-term, but would be highly beneficial at the landscape level over the long-term. IDARNG off-road maneuver activities and the loss of SSA habitat due to fire would have slight to moderate adverse impacts at the landscape and local levels respectively. However, the overall impacts would be highly beneficial at the landscape level over the long-term.

The objective for SSA and DFC for Fish and Wildlife would be met for riparian, wetland, open water and some upland species. The objective and DFC would not be met for shrub dependent species in non-shrub areas in the OTA and fuels treatment areas outside the OTA that would not be restored.

**Specials Status Animal Species:
Alternative D**

Fish and Wildlife Management Activities: The impacts of maintaining or improving riparian functioning condition and providing artificial nest sites and water sources would be as described in Alternative A. The impacts of creating a 20-acre pond at TWMA and 100 acres of woodlands along the Snake River would be the same as described in Alternative B.



Idaho Army National Guard Activities: Restricting vehicle maneuver training in the 22,300 acre Bravo Area would have the same impacts as described in Alternative B. Transferring 1,000 TDs from the Bravo Area to the Alpha, Charlie, and expanded Delta areas would affect SSA in these areas as described in Alternative C. Increased off-road maneuver training would adversely affect SSA species moderately at the local level in the 4,100 acre expansion area. Remnant shrub communities (16% of the area) would remain fragmented and the degraded areas would not be available for restoration. Grassland areas within the OTA would be moderately to highly adversely impacted in the short-and long-term by off-road maneuver training. Slight impacts from excavation sites would occur at the local level (2 sites totaling 55 acres) over the short- and long-term.

Lands and Realty Activities: The effects from avoidance areas and utility corridors would be the same as described in Alternative A. The effects of land consolidation would be as described in Alternative C.

Livestock Grazing Management Activities: Impacts of grazing restrictions and closures along the Snake River would be as described in Alternative A. Benefits associated with managing Sandberg bluegrass areas would be the same as Alternative B. Upland livestock grazing in the remainder of the NCA would have the same impacts as described in Alternative A.

Transportation and Recreation Management Activities: Elimination of motorized recreation-related impacts would have moderate local benefits over the short- and long-term for prairie falcons and other upland SSA that inhabit the Snake River Canyon and riparian and open water SSA. Impacts from vehicles would be eliminated on both sides of the Snake River for up to 5.7 miles of riparian habitat and 9.5 miles of cliff habitat and on one side of the river for 3.5 miles of riparian habitat and 4.3 miles of cliff habitat. Through the application of route designation criteria, buffers that re-

duce or eliminate vehicle use in SSA habitats would moderately benefit SSA at the landscape level (428,400 acres) over the long-term. Development of the Black Butte boat access could increase boater recreation disturbance resulting in slight impacts to riparian and open water SSA at the landscape level on up to 19.3 miles of the Snake River. The level of recreation development would meet much of the recreation demand; therefore, adverse impacts from dispersed recreation could moderately decrease over the long-term at the landscape level.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Impacts from fuels treatments on 100,000 acres would be the same as described in Alternative C. Fuel break maintenance and construction would have the same impacts as Alternative B, except that four additional miles would be constructed.

Vegetation – Noxious Weeds Management Activities: Impacts from the treatment of 4,000 acres of noxious weeds would be the same as described in Alternative C.

Vegetation – Restoration Activities: Restoring 130,000 acres of degraded small mammal habitat would have the same impacts as described in Alternative C. Restoring 80 acres of wetlands at the TWMA would have the same impacts as described in Alternative A. Impacts from the restoration of 40 miles of riparian and wetland habitat would be the same as described in Alternative C.

Conclusion– Specials Status Animal Species: Alternative D

Riparian/Wetland/Open Water Species: Fish and wildlife management actions could have slight adverse local impacts over the short-term to SSA including Idaho springsnails. Fish and Wildlife management actions and vehicle closures would have slight to moderate local or landscape level benefits for SSAs including



bald eagles and yellow-billed cuckoos over the long-term. Implementation of S & G and vegetation treatments would have slight to moderate benefits at the landscape level for riparian and aquatic species. Overall, the impacts would be highly beneficial at the landscape level.

Upland Species: Wildlife habitat enhancements, restrictions on IDARNG activities in shrub habitats, grazing closures, and recreation developments would provide slight to moderate localized benefits over the long-term. Land consolidation and implementation of S & G and application of the route designation criteria would provide slight to moderate benefits at the landscape level. Vegetation treatments could have slight to moderate localized adverse impacts over the short-term, but would be highly beneficial at the landscape level over the long-term. IDARNG off-road maneuver activities and the loss of SSA habitat due to fire would have slight to moderate adverse impacts at the landscape and local levels respectively. Overall, the impacts would be moderate to highly beneficial at the landscape level.

The objective for SSA and DFC for Fish and Wildlife would be met for riparian, wetland, open water and some upland species. The objective and DFC would not be met for shrub dependent species in non-shrub areas in the OTA and fuels treatment areas outside the OTA that would not be restored.

4.2.6.2 Special Status Plants

Summary

Implementing a variety of management actions (i.e. military training restrictions, acquisition of important habitat, implementation of Idaho S&Gs (Appendix 3), reducing or eliminating surface disturbing activities) would help minimize human impacts to SSP species and contribute to their long-term viability; therefore the objectives would be met under all four alternatives. However, the DFC would only be met under Alternatives B, C, and D. The DFC would not be met under Alternative

A, because impacts from human uses (i.e. dispersed recreation) would continue to adversely affect individual populations. In addition, the levels of fuels management, habitat restoration, and weeds treatments would not reverse the trend of shrub loss in the NCA. Individual populations would remain isolated and at greater risk for extirpation. The loss of shrub communities and increases in invasive and noxious weed species would result in losses of SSPs and their habitat at the local and possibly landscape levels. Management actions under Alternatives B, C, and D could potentially reverse the current trend of shrub loss and reduce human impacts; therefore these alternatives would likely contribute to the long-term viability of the species and meet the DFC.

Assumptions

- Noxious weed control in restored areas would be considered part of the restoration project for the first three years and would then be part of the overall noxious weeds program.
- Slickspot peppergrass populations would have the highest priority for weed treatment.
- 50% of ESR treatments would require additional restoration work.
- BLM would not conduct habitat restoration projects in the OTA.
- IDARNG would conduct rehabilitation efforts in the OTA only in areas that would not be repeatedly disturbed by military training. Burned areas within the Impact Area would not be rehabilitated because unexploded ordnance is a significant safety hazard and the area has a high probability of repeated fires.
- For analysis purposes, IDARNG activities include: maneuver training, live-fire activities, bivouac and dismount training.
- Short-term impacts would be up to 10 years based on the amount of time it takes to establish perennial species in a desert environment. Long-term impacts are greater than 10 years.



How Activities Affect Special Status Plants

- The impacts of management actions on SSP species are often the same as for upland vegetation; however, impacts that reduce or eliminate plants or populations could directly impact the long-term viability of populations and species (Rosentreter 1992). Impacts that are specific to SSPs are discussed below.

Direct Impacts

Idaho Army National Guard Activities

- Known populations of SSPs and suitable habitat in shrub communities would be protected from direct impacts over the long-term by restrictions on maneuver training, bivouacs, and other ground disturbing activities.

Lands and Realty Activities

- An emphasis on retaining and acquiring lands with SSP habitat would directly benefit populations over the long-term.

Livestock Grazing Management Activities

- Grazing related activities have been identified as a threat to eight of the SSP species that occur in the NCA (Appendix 9).

Recreation Management Activities

- Reducing the number of human-caused fires by restricting campfires would benefit SSPs and suitable habitat over the short- and long-term. Management actions that attract and increase recreational use in an area (i.e., facilities development) could adversely affect SSPs in adjacent areas by increasing the opportunity for impacts from trampling and fires starts.

Slickspot Peppergrass Candidate Conservation Agreement (CCA) Activities

- The agreement includes conservation measures related to fire management, recreation, invasive non-native plant species, land use authorizations and land exchanges, livestock trampling, and military training. Implementation of the CCA would minimize or mitigate impacts to

slickspot peppergrass from these activities over the short- and long-term.

Surface Disturbing Activities

- The short-term direct impacts of surface disturbing activities (i.e., IDARNG maneuver training, recreation, ORV, rights-of-way) include crushing and destroying plants. These impacts can limit the ability of SSPs to reestablish by reducing their numbers and reproductive capability (USDI 1996). Significant short-term losses of individual plants could jeopardize the long-term viability of isolated populations (Jules 1998).
- Management actions that create buffers around SSP populations from surface disturbing activities (i.e. grazing exclosures, route designation, vehicle closures, recreation permit requirements, restrictions on mineral material sites) would reduce or eliminate the potential for short-term direct impacts and increase the long-term viability of populations.

Transportation Management Activities

- Off-road vehicle use has been identified as a threat to 16 SSP species (Appendix 9-8). Implementing a ¼-mile buffer around occupied habitats would eliminate impacts over the short- and long-term.

Vegetation – Fire Suppression Activities

- Limiting 90% of wildfires in slickspot peppergrass management areas to less than 100 acres would benefit the majority of occupied and suitable slickspot peppergrass habitat over the short- and long-term. Outside of designated slickspot peppergrass management areas, the goal of limiting 90% of wildfires to less than 200 acres, with an emphasis on protecting shrub communities, would benefit other SSP populations that occur in shrub communities over the short- and long-term. The presence of resource advisors during wildfires would help limit impacts on known occurrences. SSPs could be adversely affected when areas outside



slickspot peppergrass management areas burn because of inadequate suppression resources.

Vegetation – Restoration Activities

- Restoration efforts that disturb the ground (i.e. drill seeding) or remove vegetation (i.e. prescribed burning, chemical application) could impact isolated islands of suitable or occupied SSP habitat that occur within areas being restored. SSP species that occur in soils that have a high erosion potential would be most susceptible to impacts. SSP populations could also be impacted in areas where vegetation removal actions expand beyond the area targeted for restoration.

Indirect Impacts

Idaho Army National Guard Activities

- Areas subject to military maneuver activity could be dominated by annual and perennial grasses, which are more susceptible to fire.

Lands and Realty Activities

- SSP populations that would be included in the NCA by a boundary change could benefit over the long-term by an increased emphasis on habitat restoration. Conversely, populations that would no longer be in the NCA could be adversely impacted in areas where habitat restoration is a lower priority.

Livestock Grazing Management Activities

- All SSP species could be affected by grazing activities that affect vegetation (i.e., soil disturbance or compaction, increase of invasive species). Management actions that reduce or eliminate these impacts (i.e. closing areas to grazing, resting areas to allow recovery and/or seedling establishment, implementing Idaho S&Gs, and leaving minimum amounts of residual litter in annual grass pastures) would help maintain or enhance SSP populations. Ex-closures that specifically protect plant populations would have long-term benefits

at the population level, but would have limited affect at the species or landscape level.

Recreation Management Activities

- Management actions that reduce recreation use in an area (i.e., recreation facilities that reduce dispersed use) would benefit SSPs in areas where recreation use decreases by reducing impacts to plants and their habitats.

Slickspot Peppergrass Candidate

Conservation Agreement (CCA) Activities

- Populations of other SSP species in slickspot peppergrass management areas would also benefit over the long-term.

Surface Disturbing Activities

- Invasive and noxious weeds that become established in disturbed areas may spread into adjacent occupied SSP habitat resulting in increased competition for resources over the short- and long-term. Adequate buffers would reduce competition from invasive and noxious weeds that become established in disturbed areas.
- The resulting long-term impacts of surface disturbance include increased fire frequency as a result of the introduction of invasive annual grasses; increased erosion and reduced water infiltration; limited seed germination; and reduced soil stability and fixed nitrogen availability resulting from the loss of biological soil crusts (Belnap 1995). These impacts would adversely impact occupied SSP habitat and the ability for plants to expand in suitable habitat that is affected.
- Management actions that increase surface disturbing uses near SSP habitat (i.e. establishment of new recreation sites) would increase the potential for the short- and long-term impacts described above.
- Repeatedly disturbed areas would not recover over the short- or long-term resulting in fragmented habitats. Because isolated populations of SSPs have a lower probability of surviving over the long-



term (Jules 1998, Harrison *et al.* 2000), disturbed areas would limit the potential for populations to expand and could serve as barriers to genetic transfer between populations. Disturbed areas dominated by cheatgrass would be more susceptible to wildfire, which could threaten occupied and suitable habitat over the short- and long-term.

Transportation Management Activities

- Continued impacts to suitable habitats (i.e., fragmentation, introduction of noxious weeds, fire starts) could affect long-term population viability by reducing the potential for a population to expand. Buffers from occupied habitats would help reduce the potential for impacts from motorized vehicle use. A reduction in duplicate routes would reduce habitat fragmentation and provide better connectivity within and between individual plant populations.

Vegetation – Fire Suppression Activities

- Limiting the disturbance caused by wildfire would reduce the potential for noxious and invasive weeds to become established or increase in occupied and suitable habitats over the short- and long-term. SSPs in the remaining areas would be at greatest risk from impacts caused by wildfire over the short- and long-term. A reduction in wildfires that helps restore or make progress toward the natural fire regime would benefit SSP populations over the long-term.

Vegetation – Fuels Management Activities

- While efforts would be made to avoid known occurrences of SSPs in fuels treatment areas, suitable habitat could be adversely affected over the short-term within fuels treatments. Larger contiguous stands of suitable and occupied habitat would benefit over the short- and long-term from fuels treatments. By increasing the time between disturbance events and increasing the availability of limited resources for perennial communities (i.e., moisture and nutrients), structural and functional com-

ponents (vegetation, soil, nutrient cycling, hydrology, etc.) could be preserved in residual perennial communities and potentially reestablished in altered sites that no longer retain critical components necessary for SSPs (Gebhardt *et al.* 1987). The long-term result would be more suitable habitat for SSPs that would be more resilient and resistant to disturbance and competition.

Vegetation – Noxious Weeds Management Activities

- Competition with invasive species, such as noxious weeds, has been identified as a threat to at least seven of the SSS known to occur in the NCA (Appendix 9–8). By giving priority to treating areas adjacent to SSP populations, the reduction or elimination of competition from noxious weeds would help ensure the long-term viability of those populations.
- IDARNG policy to wash training vehicles that are brought in from outside the Treasure Valley area would benefit slickspot peppergrass and other SSS that occur in the OTA by limiting the potential for introducing noxious weeds.

Vegetation – Restoration Activities

- Competition from seeded species could adversely affect short- and long-term survival of SSS (USDI 2000a, p 137).
- Restored areas would benefit adjacent suitable or occupied habitats by reducing the potential for the spread of fire (where continuous fuels are reduced or eliminated) over the short-term and by creating buffers where the interval between fires is greater over the long-term. Healthy communities surrounding SSP populations would reduce the potential for the establishment and spread of invasive non-native species into occupied and suitable habitats. Restored areas could potentially provide suitable habitat for SSP species over the long-term as competition from invasive non-native species is eliminated and desirable functional and structural components are restored. As larger areas



are restored, the potential for connectivity between individual SSS populations increases resulting in a long-term improvement in population and species viability.

Discussion of Impacts by Alternative

Proposed Species – Slickspot Peppergrass: Alternative A

Idaho Army National Guard Activities: Occupied slickspot peppergrass habitat would moderately benefit from restrictions on military training at the local level over the short- and long-term. IDARNG would continue to protect slickspot peppergrass habitat. Because vegetation treatments would be limited in the Impact Area, due to safety concerns, suitable slickspot peppergrass habitat in the Impact Area would be at risk over the long-term due to fires and invasive weeds. Suitable habitat in the remainder of the OTA would be fragmented and could decrease if changes in training priorities result in a loss of shrub communities. Local populations would remain isolated and at risk for extirpation.

Lands and Realty Activities: Consolidating land ownership (as described in Upland Vegetation Section 4.2.8) could benefit slickspot peppergrass populations and suitable habitat slightly at the local level over the long-term.

Livestock Grazing Management Activities: Implementation of S&Gs (Appendix 3) would moderately benefit occupied slickspot peppergrass habitat and suitable habitat slightly at the landscape level over the long-term.

Recreation Management Activities: Unmanaged dispersed recreation could result in slight adverse impacts to local populations over the short- and long-term.

Slickspot Peppergrass CCA Activities: Implementing the protective measures identified in the CCA would moderately benefit slickspot peppergrass populations over the long-term at the landscape level.

Surface Disturbing Activities: Impacts to suitable habitat from surface disturbing activities

could restrict expansion of slickspot peppergrass populations over the long-term. Actions that limit or eliminate surface disturbing activities around occupied habitat would moderately reduce adverse impacts at the local level over the long-term. Isolated populations would be protected, but long-term species viability would not be enhanced because connectivity between populations would not be improved.

Transportation Activities: Application of the route designation criteria would slightly to moderately benefit slickspot peppergrass at the local and landscape levels over the short- and long-term. There are no known slickspot peppergrass populations or habitat in areas closed to motorized vehicle use.

Vegetation – Fire Suppression Activities: Fire suppression priorities would be moderately beneficial to slickspot peppergrass at the landscape level over the long-term.

Vegetation – Fuels Management Activities: Fuel breaks would be moderately beneficial to populations at the landscape level over the long-term. Fuels treatments could moderately benefit occupied and suitable habitat in Management Area 1. Lack of fuels treatments in Management Areas 2 and 3 would moderately adversely impact occupied and suitable habitat over the short- and long-term. It is anticipated that there would be a loss of 50,000 acres of remnant shrub communities, which could have a moderately adverse affect on occupied and suitable habitat at the landscape level over the long-term.

Vegetation – Noxious Weeds Management Activities: Weeds treatments would be moderately to highly beneficial to occupied habitat but would likely be inadequate for suitable habitat having moderate adverse impacts to suitable habitat over the long-term.

Vegetation – Restoration Activities: Restoration efforts could slightly benefit populations at the local level in Management Area 1 over the long-term. However, most occupied habitat is not adjacent (<1/4 mile) to remnant



shrub stands and would not benefit from restoration. Connectivity between isolated populations could be minimally enhanced at the local level over the long-term. Lack of restoration in Management Areas 2 and 3 would moderately adversely impact occupied and suitable habitat over the long-term.

Conclusion – Proposed Species – Slickspot Peppergrass : Alternative A

Land consolidations, restrictions on surface disturbing activities, and vegetation treatments would provide slight to moderate localized benefits over the long-term. At the landscape level, implementation of the CCA would be moderately beneficial, and giving fire suppression priority to slickspot peppergrass management areas and constructing and maintaining fuel breaks would be moderately to highly beneficial over the long-term at the landscape level. Vegetation treatments could have slight adverse localized impacts to suitable habitat in the short-term and would have slight to moderate long-term benefits at the local level. A lack of adequate recreation facilities could have slightly adverse localized impacts. IDARNG training could have slight to moderate adverse impacts in the OTA. Overall, populations could benefit moderately but species viability would not be ensured. The objective and the specific SSP DFC identified for Upland Vegetation (Section 4.2.8) would not be met because populations would remain isolated.

Proposed Species – Slickspot Peppergrass: Alternative B

Idaho Army National Guard Activities: A mandatory restriction of vehicle maneuver training to designated routes in the Bravo Area and to non-shrub areas in the remainder of the OTA would ensure long-term protection to occupied and suitable habitat. Habitat fragmentation could be reduced in the Bravo Area, however occupied and suitable habitat would likely be fragmented and at risk from fire. Suitable habitat in non-shrub areas outside the Bravo Area would be moderately, adversely impacted over the short- and long-term at the

local level. Maneuver training in designated off-road areas would cause moderate adverse impacts in suitable habitat. Use of the expansion area would preclude the opportunity for restoration.

Lands and Realty Activities: Land consolidation could slightly benefit slickspot populations and suitable habitat in Management Area 1 and would provide slight local benefits for suitable habitat and some isolated populations in Management Area 2 over the long-term.

Livestock Grazing Management Activities: Implementation of S&Gs (Appendix 3) would have the same impacts as described in Alternative A. One known metapopulation of slickspot peppergrass could moderately benefit over the long-term from the closure to livestock grazing in the Kuna Butte area. Reducing or eliminating livestock use during the growing season in Sandberg bluegrass dominated communities would moderately benefit slickspot peppergrass populations that occur in these areas at the local and potentially landscape level landscape-wide.

Recreation Management Activities: The development of the Initial Point site would occur within 1/2 mile of occupied and suitable habitat. Increased recreation use associated with the site would slightly affect slickspot peppergrass adversely at the local population level (rather than the metapopulation level) over the short- and long-term. No known populations or suitable habitat occur within two miles of the Three Pole site.

Slickspot Peppergrass CCA Activities: The impacts of implementing the CCA would be as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbing activities, other than utility developments, would be as described in Alternative A. Two known populations of slickspot peppergrass and suitable habitat occur within 1/2 mile of the proposed utility corridor. Although the goal would be to avoid or mitigate impacts, utility construction and maintenance



activities could have a slight adverse impact on occupied and suitable habitat at the local level in the short-term.

Transportation Activities: Impacts of applying the route designation criteria would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: The impacts of fire suppression would be as described in the Alternative A.

Vegetation – Fuels Management Activities: Improving and maintaining fuel breaks and treating 70,000 acres (14% of the NCA) of annual grassland could result in moderate to high localized adverse impacts to suitable habitat in the short-term, but would have moderately beneficial landscape impacts over the long-term in Management Areas 1 and 2. Untreated areas in Management Area 3 would remain at risk from fire. It is anticipated that there would be a loss of 30,000 acres of remnant shrub communities to fire, which could have a highly adverse affect on occupied and suitable habitat at the local level over the long-term.

Vegetation – Noxious Weeds Management Activities: Weeds treatments would be moderately to highly beneficial to occupied and suitable habitat in Management Areas 1 and 2 over the long-term. Weed treatments would moderately benefit occupied habitat, but would be inadequate for suitable habitat in Management Area 3.

Vegetation – Restoration Activities: Re-establishing shrubs is the primary restoration goal in the northwest portion of Management Area 1; therefore, short-term adverse impacts to slickspot peppergrass populations should be slight and long-term benefits from increased connectivity would be moderate. More intensive restoration efforts in the eastern portion of Management Area 2 could cause moderate adverse effects in the short-term and moderate long-term benefits. Lack of restoration in Management Area 3 would have the same impacts as described in Alternative A.

Conclusion - Proposed Species – Slickspot Peppergrass – Alternative B

Land consolidation, restrictions on surface disturbing activities and livestock grazing in Sandberg bluegrass areas, and development of a recreation site would provide slight to moderate localized benefits over the long-term. At the landscape level, implementation of the CCA would be moderately beneficial at the short- and long-term. Giving fire suppression priority to slickspot peppergrass management areas and constructing and maintaining fuel breaks would be moderately to highly beneficial at the landscape level. Vegetation treatments could have slight adverse localized impacts in the short-term to suitable habitat and would have moderate long-term benefits at the landscape level. Utility development and increased recreational use around Initial Point could have slight adverse localized impacts over the short- and long-term. IDARNG training could have slight adverse impacts in the local level OTA over the short-and long-term. The objective and specific SSP DFC under Upland Vegetation would be met in the western portion of Management Area 1 and the eastern portion of Management Area 2, but would largely be unmet in the remainder of the NCA. The limited degree of vegetation treatments would only slightly exceed the amount of habitat loss.

Proposed Species – Slickspot Peppergrass: Alternative C

Idaho Army National Guard Activities: Restricting vehicle maneuver training to three graveled roads in 18,400 acres of the Bravo Area would benefit two known populations and the largest block of relatively intact, high quality suitable habitat to a greater extent than Alternative B. Shrub communities in the Bravo Area would have the greatest opportunity to expand over the long-term, reducing fragmentation of suitable habitat and providing greater connectivity between metapopulations of peppergrass. More intensive training levels would cause greater impacts to suitable habitat in the Alpha, Charlie, and Delta areas than described in Alternative B. Removing



3,900 acres from the OTA would have no impacts on slickspot peppergrass. Although IDARNG environmental protection in that area would be reduced, any reductions in protection would be compensated for by increased BLM management because of the high priority placed on SSP habitat.

Lands and Realty Activities: There would be slight landscape-wide benefits from consolidating ownership. The boundary realignment in the eastern portion of the NCA would result in increased protection for a metapopulation.

Livestock Grazing Management Activities: Removing grazing from the NCA would moderately benefit slickspot peppergrass at the landscape level for the short- and long-term. Extensive vegetation treatments would compensate for any lost benefits from livestock grazing. Using livestock to reduce fuel loads could have moderate short- and long-term adverse impacts to several populations that occur in treated areas. These impacts would occur at the local level and the treatments would indirectly benefit slickspot peppergrass in other areas.

Recreation Management Activities: Impacts associated with the Initial Point site would be as described in Alternative B. No known populations or suitable habitat occur within two miles of the other proposed sites.

Slickspot Peppergrass CCA Activities: Implementation of the CCA would have the same impacts as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbing activities, other than utility developments, would be as described in Alternative A. Utility development could adversely affect suitable habitat slightly at the local level.

Transportation Management Activities: Impacts of applying the route designation criteria would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: The impacts of fire suppression would be as described in the Alternative A.

Vegetation – Fuels Management Activities: Hazardous fuels treatments (100,000 acres) and fuel breaks could have slight adverse impact on occupied and suitable habitat at the local level and would be highly beneficial to slickspot peppergrass at the landscape level in all Management Areas 1 and 2. It is anticipated that there would still be a loss of 15,000 acres of remnant shrub communities, which could have moderate adverse impacts on occupied and suitable habitat at the local level over the long-term.

Vegetation – Noxious Weeds Management Activities: Weed treatments would moderately benefit occupied and suitable habitat at the landscape level over the long-term.

Vegetation – Restoration Activities: Because of the proposed scale of treatments, potential short-term adverse impacts to suitable and occupied slickspot peppergrass habitat in restored areas would be greatest in this alternative. Suitable and occupied habitats in remnant shrub communities would receive a greater degree of protection from fires and invasive species than Alternatives A and B over the short- and long-term. Increased connectivity between peppergrass populations would occur at the local and landscape scales.

Conclusion – Proposed Species – Slickspot Peppergrass: Alternative C

Restrictions on surface disturbing activities and development of recreation sites would provide slight to moderate localized benefits over the long-term. At the landscape level, implementation of the CCA and changes in vehicle management would be moderately beneficial and consolidating ownership, removing livestock, giving fire suppression priority to slickspot peppergrass management areas, and constructing and maintaining fuel breaks would be moderately or highly beneficial at the landscape level. Vegetation treatments would have slight adverse localized im-



pacts to suitable habitat in the short-term and would be highly beneficial at the landscape level over the long-term. Utility development and increased recreational use around Initial Point could have slightly adverse localized impacts over the long-term. Restrictions on IDARNG training would be moderately to highly beneficial at the local level, but increased training levels in non-shrub areas could have slight to moderate adverse impacts in the local level of the OTA over the short- and long-term. The objective would be met. The specific SSP DFC under Upland Vegetation (Section 4.2.8.) would be met except for suitable habitat in non-shrub areas of the OTA where surface disturbing activities would occur.

Proposed Species – Slickspot Peppergrass: Alternative D

Idaho Army National Guard Activities: The impacts of restrictions on off-road vehicle maneuver training in the Bravo Area and impacts to suitable habitat in shrub areas in the remainder of the OTA would be as described in Alternative B. Suitable habitat in non-shrub areas could be moderately adversely affected at the local level where training would be more concentrated than Alternative B. The majority of the expansion area is suitable habitat and would be moderately, adversely affected by training activities over the long-term. The opportunity for restoration in the area would be precluded and the area would be susceptible to the adverse effects of wild-fire over the long-term.

Lands and Realty Activities: The benefits to slickspot peppergrass caused by consolidating land ownership would be as described in Alternative C. The proposed change to the NCA boundary would not affect slickspot peppergrass.

Livestock Grazing Management Activities: Impacts of implementing S&Gs (Appendix 3) would be as described in Alternative A. Impacts associated with modifying use in Sandberg bluegrass dominated areas would be as described in Alternative B. The classifica-

tion of the Kuna Butte area for intermittent grazing could have slight adverse impacts over the long-term to occupied and suitable habitat.

Recreation Management Activities: Impacts from recreation management would be as described in Alternative C.

Slickspot Peppergrass CCA Activities: Implementation of the CCA would have the same impacts as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbing activities would be as described in Alternative A.

Transportation Management Activities: Impacts of designating routes and closures would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: Fire suppression priorities would have the same impacts as described in Alternative A.

Vegetation – Fuels Management Activities: Impacts associated with fuels management would be the same as described in Alternative C.

Vegetation – Noxious Weeds Management Activities: The impacts from weeds management activities would be the same as described in Alternative C.

Vegetation – Restoration Activities: Impacts from habitat restoration projects would be the same as those described in Alternative C.

Conclusion – Proposed Species – Slickspot Peppergrass: Alternative D

Restrictions on surface disturbing activities and development of recreation sites would provide slight to moderate localized benefits over the long-term, but increased recreational use around Initial Point could have slightly adverse localized impacts. At the landscape level, implementation of the CCA would be moderately beneficial and consolidating ownership, giving fire suppression priority to peppergrass management areas and construct-



ing and maintaining fuel breaks would be moderately to highly beneficial over the short- and long-term. Vegetation treatments could have slight adverse localized impacts to suitable habitat in the short-term and would be highly beneficial at the landscape level over the long-term. Restrictions on IDARNG training would be moderately beneficial at the local level, but other military training activities could have slight adverse impacts in the local level of the OTA over the short- and long-term. The objective would be met. The specific SSP DFC for Upland Vegetation (Section 4.2.8.) would be met except for suitable habitat in non-shrub areas of the OTA where surface disturbing activities would occur.

Special Status Plant Species: Alternative A Idaho Army National Guard Activities: SSP populations in remnant shrub communities could be maintained in the OTA. Avoidance of shrub communities and known SSP populations would help maintain known occurrences. Shrub communities would remain fragmented over the long-term because of continued disturbance and limited rehabilitation efforts. A change in IDARNG training could result in the loss of suitable habitat over the long-term.

Lands and Realty Activities: Consolidating land ownership would benefit SSPs at the local (population) level, primarily in Management Area 1. Acquisition of occupied or suitable SSP habitat would be slightly beneficial to SSP populations at the local level over the long-term.

Livestock Grazing Management Activities: Implementation of S&Gs (Appendix 3) would slightly to moderately benefit SSPs at the landscape (species) level over the long-term. Grazing closures would moderately benefit populations of Snake River milkvetch, shining flat sedge, and suitable habitat for other species at the local level over the long-term; however, increased accumulations of fuels in closed areas could create a slight adverse effect.

Recreation Management Activities: Because no new sites would be developed, there would be slight adverse impacts at the local level over the long-term. Dispersed recreation could have slight adverse impacts to local populations over the long-term.

Slickspot Peppergrass CCA Activities: Implementation of the CCA would slightly benefit SSPs (other than slickspot peppergrass) at the local level over the long-term.

Surface Disturbing Activities: Actions that limit or eliminate surface disturbing activities around SSP species populations would slightly to moderately benefit occupied habitat at the local level over the short- and long-term; however, suitable habitat could be slightly adversely affected. Isolated populations would be protected, but long-term species viability would not be enhanced because connectivity between populations would not be improved. The impacts of most of the actions would be evident primarily at the local level; however, actions that cover large areas would result in beneficial impacts at the landscape level over the long-term.

Transportation Management Activities: The closure of 1,600 acres to motorized vehicles would have moderate benefits local SSP populations including shining flat sedge (suitable habitat), Snake River milkvetch (1 occurrence) and American wood sage (1 occurrence). Application of the route designation criteria and the resulting reduction in habitat fragmentation would have moderate benefits for SSP species at the local and landscape levels over the long-term.

Vegetation – Fire Suppression Activities: Minimizing fire size outside of slickspot peppergrass management areas would have moderate benefits for SSPs at the local level; however, because the majority of population occurrences are adjacent to or surrounded by disturbed areas, suppression priorities could have slight to moderate adverse impacts at the local and landscape levels over the short- and long-term.



Vegetation – Fuels Management Activities:

Fuels treatments (3% of the area that needs to be treated) would reduce the loss of SSP habitat from wildfire in local portions of Management Areas 1 and 2. Area 3 would be the lowest priority for hazardous fuels treatments and fuel break construction; therefore, there would be no noticeable improvement in fire frequency, size, or severity, and as such, the 47 known SSP populations (representing nine species) and associated habitat in Area 3 could be further degraded over the long-term. The creation of additional habitat in which SSP may reestablish would be slight because a relatively small area across the landscape would be treated. Similarly, progression toward a restored historic fire regime in treated and adjacent areas, as well as expansion of protected areas would be slight.

Vegetation – Noxious Weeds Management

Activities: An emphasis of treating weeds in riparian areas would provide moderate local benefits for shining flat sedge over the long-term. Populations that occur in or immediately adjacent to degraded habitat, especially those in Management Areas 2 and 3 (approximately 81 known populations representing 13 species), would be most susceptible to noxious weed infestations over the long-term. The proposed level of weeds treatments in uplands would not be adequate to control noxious weeds in SSP habitats over the long-term.

Vegetation – Restoration Activities: Because of the narrow focus of restoration efforts, potential short-term adverse impacts would be slight and relatively few known populations of SSPs (up to nine species primarily in the northwest portion of the NCA) could benefit moderately at the local level over the long-term. Connectivity between isolated SSP populations would be slightly beneficial at the local level over the long-term.

Conclusion – Special Status Plant Species: Alternative A

Individually restrictions on IDARNG training, land consolidation, grazing closures, restrictions on surface disturbing activities, imple-

mentation of the slickspot peppergrass CCA, and areas closed to motorized vehicles would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would have slight to moderate long-term benefits at the local level. At the landscape level, improvements in vegetation condition would not exceed the loss of SSP populations to fire and weed infestations. Implementation of S&Gs and application of vehicle route designation criteria would provide slight to moderate short and long-term benefits at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level. IDARNG activities would have slight to moderate short- and long-term adverse impacts across the OTA. The objective and DFC would not be met.

Special Status Plant Species: Alternative B

Idaho Army National Guard Activities: Restricting off-road vehicle maneuver training to designated routes in the Bravo Area and to non-shrub areas in the remainder of the OTA would provide slight long-term landscape level protection to occupied SSP habitat. However, the impacts of habitat fragmentation would be as discussed in Alternative A. There would be slight to moderate adverse impacts to 10 known populations of SSP in the proposed expansion area including Davis' peppergrass (8 populations), Snake River milkvetch, and white eatonella over the short- and long-term.

Lands and Realty Activities: Land consolidation could benefit SSPs moderately at the local level, primarily in Management Areas 1 and 2. A 105,000-acre avoidance area would have slight beneficial impacts on SSPs by limiting ground disturbance over the long-term. A utility corridor would have slight to moderate adverse impacts at the local and possibly at the landscape level.

Livestock Grazing Management Activities: Habitat for shining flat sedge and upland spe-



cies (including known occurrences of Packard's buckwheat and American wood sage) would moderately benefit over the long-term from the closure or seasonal restriction of livestock grazing along the Snake River. Reducing or removing livestock use during the growing season in Sandberg bluegrass dominated communities would slightly to moderately benefit SSP species (primarily slickspot peppergrass) at the local and potentially landscape level over the long-term. Impacts from implementing S&Gs (Appendix 3) would be as described in Alternative A.

Recreation Management Activities: Development and use of the Three Pole site could slightly adversely affect occupied Snake River milkvetch habitat at the local level over the short- and long-term. Suitable habitat for other species could be slightly adversely affected at the local level over the long-term. Impacts from dispersed recreation would be as described in Alternative A.

Slickspot Peppergrass CCA Activities: The impacts of implementing the CCA would be as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbing activities, except utility development, would be as described in Alternative A. Occupied and suitable habitat for at least six SSPs occurs within 1/2 mile of the proposed utility corridor. Construction and maintenance within the corridor could slightly impact populations, primarily at the local level, but because of the extent of the corridor, could also occur at the landscape level over the long-term.

Transportation Management Activities: Closure of 6,400 acres to motorized vehicles could benefit more SSP populations (five populations representing three species) than Alternative A, but benefits would still be moderate and would occur at the local level over the long-term. Impacts from the application of route designation criteria would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: The impacts of fire suppression would be as described in the Alternative A.

Vegetation – Fuels Management Activities: Improving and maintaining fuel breaks and treating 70,000 acres (14% of the NCA) of annual grassland would result in slight adverse impacts in treated areas over the short-term and slight to moderate beneficial landscape impacts to SSPs in adjacent areas over the long-term primarily in Management Areas 1 and 2. Impacts in Management Area 3 would be the same as described in Alternative A.

Vegetation – Noxious Weeds Management Activities: The majority of Management Areas 1 and 2 would be treated and would have the same impacts as described in Alternative A; however, they would occur at a greater scale. Although SSP habitat would be a priority for weeds treatments, the increase in acres restored could increase the potential for weeds in the short-term. Management Area 3 would remain largely untreated, potentially moderately adversely impacting up to 47 known populations over the long-term.

Vegetation – Restoration Activities: With increased restoration efforts, the potential for short-term adverse localized impacts to isolated occupied and suitable habitats would be greater than Alternative A and could affect a wider range of species. Because restored areas around existing shrub communities would be larger, suitable and occupied habitats would receive greater short- and long-term protection from fires and invasive species than in Alternative A. With the long-term net gain in shrub acreage, some suitable habitat could be created. Opportunities for improving connectivity between SSP populations would increase with moderate long-term benefits occurring primarily at the local scale.

**Conclusion – Special Status Plant Species:
Alternative B**

Areas closed to motorized vehicles and/or grazing, implementation of the slickspot pep-



pergrass CCA, and restrictions on IDARNG training and other surface disturbing activities would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would have moderate long-term benefits at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level over the long-term. Changes in livestock grazing, recreation, and vehicle management, and consolidating ownership would provide slight to moderate landscape-wide long-term benefits.

Surface disturbing activities including development of recreation sites could have slight to moderate short-term localized adverse impacts. IDARNG activities, utility development, and limited recreation facilities and weeds treatments would have slight to moderate long-term adverse impacts at the landscape scale. The objective and specific SSP DFC under Upland Vegetation would be met in those portions of Management Areas 1 and 2 affected by vegetation treatments. In the remainder of the NCA the objectives and DFC would be unmet.

Special Status Plant Species: Alternative C

Idaho Army National Guard Activities: Restricting off-road vehicle maneuver training in the Bravo Area would provide slight localized long-term benefits to SSPs. Impacts to SSP populations (desert pincushion and Davis' peppergrass) in the remainder of the OTA could be slightly greater than Alternative B because of more concentrated training in other Maneuver Areas. There would be no impacts from removing 3,900 acres from the OTA. Although IDARNG environmental protection would be reduced in that area, any reductions in protection would be compensated for by increased BLM management, which prioritizes SSP habitat.

Lands and Realty Activities: Consolidating land ownership could be moderately beneficial

to SSPs at the local level over the long-term. Seven known populations and metapopulations representing six species would be included in the proposed boundary realignment and would be slightly benefited over the long-term. Twenty known populations and metapopulations representing nine species would no longer be in the NCA and could be slightly adversely impacted over the long-term.

Livestock Grazing Management Activities: Removing permitted grazing from the NCA would be moderately beneficial in perennial communities and slightly beneficial in annual communities at the landscape level for the short- and long-term. Extensive fuels and restoration treatments would compensate for any lost benefits of livestock grazing. Using livestock to reduce fuel loads would slightly affect suitable habitat at the local level over the short-term.

Recreation Management Activities: Impacts associated with the Initial Point and Three Pole sites would be as described in Alternative B. No known SSP populations occur within two miles of the proposed Celebration Park Annex and Guffey Butte sites. Suitable habitat could be slightly impacted from increased use of these sites over the long-term.

Slickspot Peppergrass CCA Activities: The impacts of implementing the CCA would be as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbing activities, except utility developments, would be as described in Alternative A. Eight known populations and metapopulations (six species) of SSPs would occur within 0.5 miles of the utility corridor. Construction and maintenance within the corridor could slightly, adversely impact occupied and suitable habitat over the short- and long-term. Impacts would occur primarily at the local level, but because of the extent of the corridor, could also occur at the landscape level.

Transportation Management Activities: The proposed closure of 13,200 acres to motorized



vehicles would provide slight long-term localized benefits to more SSP populations (11 known occurrences representing five species) than the other alternatives. Impacts of the application of the route designation criteria would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: The impacts of fire suppression would be as described in the Alternative A.

Vegetation – Fuels Management Activities: Hazardous fuels treatments and fuel breaks would be moderately beneficial to SSPs at the landscape level over the long-term. The anticipated loss of 15,000 acres of remnant shrub communities could moderately adversely affect habitat at the local level over the long-term.

Vegetation – Noxious Weeds Management Activities: This alternative maximizes the acreage affected by vegetation treatments, which could increase the potential for weeds in the short-term; however, the level of weed treatments should provide adequate protection at the local and landscape levels over the short- and long-term. Long-term improvements in rangeland and SSP habitat condition resulting from vegetation treatments would increase resistance to weed infestations, ultimately reducing the overall area susceptible to infestation.

Vegetation – Restoration Activities: With increased restoration efforts, the potential for short-term adverse impacts to isolated occupied and suitable habitats would be greater than Alternative A or B, and could affect a wider range of species. Because restored areas around existing shrub communities would be larger, suitable and occupied habitats would receive greater short- and long-term protection from fires and invasive species than in Alternative A or B. With the long-term net gain in shrub acreage, some suitable habitat could be created. Opportunities for improving connectivity between SSP populations would increase with moderate benefits occurring at the landscape scale over the long-term.

Conclusion – Special Status Plant Species: Alternative C

Individually, areas closed to motorized vehicles, implementation of the slickspot peppergrass CCA, consolidating ownership, an increased number of recreation sites, and restrictions on IDARNG training and surface disturbing activities would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level. Application of the route designation criteria would provide slight to moderate long-term benefits at the landscape level. Removal of livestock would be highly beneficial to SSP associated with perennial communities and slightly beneficial to SSP associated with annual communities over the long-term at the landscape level. Surface disturbing activities including development of recreation sites and utilities could have slight to moderate localized adverse impacts over the short-term. IDARNG activities would have slight to moderate long-term adverse impacts in the OTA. The objective and specific DFC under Upland Vegetation would be met outside the OTA. Within the OTA the objective and DFC would not be met because of the potential for fires from live-fire training in the Impact Area; however, suppression efforts by the IDARNG would provide some degree of protection. Off-road maneuver training in non-shrub areas would maintain existing habitat fragmentation.

Special Status Plant Species: Alternative D

Idaho Army National Guard Activities: The impacts of restrictions on off-road maneuver training and other training activities in the Bravo Area would be the same as described in Alternative B. Impacts to occupied habitat in the Alpha, Charlie, expanded Delta, and Impact Areas would be as described in Alternative B. Increased training levels outside the Bravo Area could cause slight to moderate



long-term adverse impacts to suitable habitat at the landscape level. There is one known population of Snake River milkvetch in the proposed expansion area. Populations of Davis' peppergrass occur in the vicinity of the area. While known populations would be protected from maneuver training, the expansion would preclude the opportunity for restoration of suitable habitat and the area would be susceptible to fire over the long-term at the local level. A Snake River milkvetch population would be isolated and at risk for localized extirpation over the long-term.

Lands and Realty Activities: The benefits to SSPs caused by consolidating land ownership would be as described in Alternative C.

Livestock Grazing Management Activities: Impacts associated with closures and implementing S&Gs (Appendix 3) would be the same as Alternative A. Impacts associated with modifying use in Sandberg bluegrass dominated areas would be as described in Alternative B.

Recreation Management Activities: No known occupied SSP populations occur within two miles of the proposed Black Butte site. Suitable habitat could be slightly impacted over the long-term from increased use associated with this site. Impacts from development of the remaining sites would be the same as described in Alternative C.

Slickspot Peppergrass CCA Activities: The impacts of implementing the CCA would be as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbing activities would be as described in Alternative A.

Transportation Management Activities: The proposed closure of 4,400 acres to motorized vehicles would potentially benefit more SSP populations (five populations representing four species) than Alternative A, but would still be at the local scale. Application of the

route designation criteria would be the same as described in Alternative A.

Vegetation - Fire Suppression Activities: The impacts of fire suppression would be as described in the Alternative A.

Vegetation - Fuels Management Activities: The impacts of fuels management would be as described in the Alternative C.

Vegetation – Noxious Weeds Management Activities: The impacts from weeds management activities would be the same as described in Alternative C.

Vegetation – Restoration Activities: Impacts from habitat restoration projects would be the same as those described in Alternative C.

Conclusion – Special Status Plant Species: Alternative D

Individually, areas closed to motorized vehicle use and livestock grazing and restrictions on IDARNG training and surface disturbing activities, would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit SSPs in shrub communities but could adversely affect SSPs in annual communities slightly at the landscape level. Consolidating ownership, increased recreation facilities, implementation of S&Gs and application of route designation criteria would provide slight to moderate long-term benefits at the landscape level. Surface disturbing activities including development of recreation sites could have slight to moderate short-term localized adverse impacts. IDARNG activities would have slight to moderate adverse long-term impacts in the OTA. The objective and specific DFC under Upland Vegetation would be met outside the OTA. Within the OTA the objective and DFC would not be met because of the potential for fires from live-fire training in the Impact Area; however, suppression efforts by the IDARNG would provide some



degree of protection. Off-road maneuver training in non-shrub areas would maintain existing habitat fragmentation.

4.2.7 Soil Resources

Summary

Alternative C has no grazing, the most restrictions of IDARNG training, and extensive vegetation treatments and all have beneficial long-term impacts. Alternative D has the same level of vegetation treatments as C and but has a greater area provided for IDARNG training and therefore has an increase in the adverse impacts to soils. Alternatives A and B have the greatest loss of shrubs with the least amount of restoration. These two alternatives provide for the greatest amount of motorized recreational use and the least amount of area closed to livestock grazing and as such have the greatest impacts to soils over the long-term.

Assumptions

- Restoration projects would eventually be successful on 100% of the acres affected. This is for analysis purposes only and may not reflect the actual success rate.
- Some post fire stabilization efforts would be converted to restoration efforts after the first year, depending on resource objectives.
- Restoration and hazardous fuels reduction actions would use prescribed fire on up to 50% of the planned acres over the long-term.
- Fire rehabilitation treatments and fuels management projects would be successful. If not successful, rehabilitation projects would become restoration projects after three years. This is for analysis purposes only and may not reflect actual success rate.
- Declines in watershed health would be primarily related to species compositional changes (transition to less desirable species) and loss of soil by erosion due mainly to loss of vegetation caused by wildfire and climatic factors.
- Short-term impact would cause damage that is restored without additional inter-

vention, in most cases this would be 3 years or less. Long-term impacts would require intervention in order to be corrected.

How Activities Affect Soil Resources

Direct Impacts

Idaho Army National Guard

- Adverse ground-disturbing impacts result from weapons firing and explosive activities in the OTA Impact Area. These impacts are in an area that would not be rehabilitated because the activities are ongoing resulting in short- and long-term localized impacts. However, those areas not directly impacted by firing could benefit from rehabilitation efforts over the long-term.
- Repeated wheel and track vehicles passes over the same area can destroy vegetation (most off-road training takes place in non-shrub areas) and could degrade soil stability (turn the soil structure into a flour-like consistency), these action increase the potential for wind erosion and compact the subsoil layers (Grantham, *et al.* 2001, pp 711-716) resulting in long-term moderate to severe adverse impacts. Restricting vehicle maneuver activities to established roads would reduce or eliminate these impacts.

Lands and Realty Activities

- Activities that take place in rights-of-ways, including activities in utility corridors, would result in various degrees of disturbance to the soil resource depending on the actions involved. These are projected to be a slight long-term adverse impact associated with access and maintenance activities. Short-term, moderate site-specific impacts would be expected during the construction of utility lines and pipelines, but would be subject to approved Best Management Practices (BMPs) and rehabilitation after the disturbance that would mitigate any long-term adverse impacts. Avoidance areas would prevent major rights-of-ways and the re-



sulting adverse impacts to the soil resource.

Livestock Grazing Activities

- Livestock grazing can cause localized soil compaction and decrease soil stability resulting in changed soils structure. Areas where livestock use is concentrated (i.e., livestock water projects) would result in long-term highly adverse localized impacts. Where these projects improve the distribution of livestock use and aid in protecting special areas there may be long-term overall benefits.

Surface Disturbing Activities

Any new or ongoing surface disturbing activity that contributes to soil disturbance and vegetative degradation could adversely affect soils and biological crusts, increasing the potential for erosion and loss of site productivity (Nef *et al.* 2004, pp 87-95) resulting in short- and long-term impacts.

- Mineral development activities are restricted to existing sites and as such, the impacts associated with this activity are through the expansion of these sites and would occur over the long-term.

Transportation Activities

- Motorized vehicle use can have long-term adverse impacts to soils through direct disturbance causing soil compaction, altered surface drainage, which would increase erosion and loss of vegetative cover resulting in an increase in wind erosion. Closing areas to cross country travel and limiting the number of routes would have short- and long-term beneficial impacts by reducing the disturbance to soils and biological crusts and protective vegetative cover and reducing soil compaction and altered surface run-off patterns.
- Limiting vehicle use to designated routes would provide short- and long-term landscape wide benefits by reducing soil disturbance that is a reuse.

Vegetation - Fire Suppression Activities

- The magnitude of impacts from wildfire on soils would be adverse depending on the number of acres burned, fire severity, pre-fire conditions, soil type, suppression activities, and post-fire management actions. Impacts would be largely due to loss of vegetative cover resulting in accelerated erosion and loss of site productivity. In many cases as a result of surface disturbance from fires and fire suppression activities, invasive and noxious weeds could become established and spread. Associated impacts would include soil surface and biological crust mechanical disturbance.

Vegetation – Fuels Management Activities

- To reduce fuels, the construction of fuel breaks and other surface disturbing activities such as grazing would result in short-term localized adverse impacts to soils by exposing them to wind and water erosion. Fuels treatments that lessen the potential for wildfire spreading into native stands of perennial vegetation would have the beneficial landscape impact of protecting soil stability and structure.

Vegetation – Restoration Activities

- Where restoration efforts are successful, these lands would contribute a moderate to highly beneficial long-term impact to soils from improved site stability, hydrologic function and site productivity.
- Restoration efforts that disturb ground (i.e., drill seeding) or remove vegetation would have short-term adverse impact to soils by increasing the susceptibility of the soils to erosion through increased surface run-off and exposing soils to wind erosion resulting from the loss of vegetative cover.

Indirect Impacts

Lands and Realty Activities

- Utility corridors have the long-term beneficial impact of concentrating major utility actions in one area, rather than spread out across the landscape. This could result in



turning a potentially landscape-wide adverse impact to a localized impact.

Livestock Grazing Activities

- Livestock management practices that change vegetative composition from deep rooted perennials to shallow rooted plants could contribute to a loss of below ground biomass and reduction in the amount of plant litter (Hutchings and Stewart 1953; Cook and Child 1971, Pechanec and Stewart 1949; Laycock and Conrad 1981 and Holechek *et al.* 2001). Shallow rooted plants have less ability to hold soil; therefore, watershed protection would be reduced and erosion increased.

Surface Disturbing Activities

- On sites where the amount of plant litter, biological soil crusts, or below ground biomass is reduced, the potential for accelerated soil erosion is increased, and the likelihood of loss in site productivity would be great, resulting in short- and long-term adverse impacts. Surface disturbing activities such as recreation developments, fire suppression, off road vehicle use, and livestock trampling can damage or destroy biological soil crusts (Belnap *et al.* 2001). Intensity, timing, frequency, and duration of disturbances can affect the severity of the impacts.

Vegetation – Restoration Activities

- Restoration activities that change an annual grass community to a perennial shrub community would have the long-term beneficial impact of improving soil stability and structure.

Discussion of Impacts by Alternative

Soil Resources: Alternative A

General Activities: Current levels of impacts to the soil resource would continue with moderate long-term localized adverse impact. The adverse impacts would be due, in large part, to the continuing decrease in rangeland health attributed to wildland fire, invasive species spread, and climatic factors. Livestock grazing

is also a contributing factor on a landscape basis.

Idaho Army National Guard Activities: Military training activities in the OTA would have a slight to moderate adverse impact to soils on a landscape wide basis and a moderate to high adverse impact on a local scale. Where repeated ground disturbing activities occur, mainly associated with off-road maneuver training, the results would be long-term damage to soil structure and compaction and localized adverse impacts to soils due to wind erosion in areas receiving repeated use. The voluntary avoidance of heavy maneuvering in most shrub communities would limit the soil related impacts to areas that have generally been impacted by fire or previous maneuver activities. Hardening administrative sites that are used repeatedly would minimize erosion and protect surrounding vegetation. Excavation training would have a high, localized long-term adverse impact.

Livestock Grazing Management Activities: Changes in livestock grazing management could reduce livestock trampling and vegetative degradation. This could have a slight long-term beneficial impact on soils and general rangeland health in perennial communities. Areas where invasive annual species dominate would be more susceptible to soil degradation. Leaving minimum amounts of residual litter in annual grass pastures would provide slight to moderate long-term localized watershed protection; however, during drought conditions when the productivity of annuals is reduced, loss of soils could occur. Excluding livestock grazing would have moderate long-term benefits at the local level.

Lands and Realty Activities: Maintaining the existing utility corridor would have negligible very localized long-term adverse impacts as a result of roads and maintenance activities. The existing avoidance area would provide some long-term protection for soils from surface disturbance in a localized area.



Surface Disturbing Activities: Disturbance from recreation use, fire suppression activities, mineral material sites and other surface disturbing activities would result in moderate short- and long-term adverse impacts at the local and landscape levels. Livestock grazing would result in slight localized adverse impacts around range improvements in the short- and long-term.

Transportation Management Activities: Vehicle travel would be managed according to motorized vehicle area designations. Limiting motorized vehicle use to existing and designated routes would have moderate short- and long-term landscape-wide beneficial impacts. Closing areas to motorized vehicle use on 1,600 acres would have high short- and long-term localized beneficial impacts.

Vegetation – Fire Suppression Activities: The aggressive suppression tactics associate with the objective of keeping fires to 100 acres or less in slickspot peppergrass and other sensitive plant habitat and 200 acres or less throughout the rest of the NCA would result in slight to moderate short-term adverse localized impacts.

Vegetation – Fuels Management Activities: The loss of 50,000 acres of remnant shrub vegetation would have moderate long-term localized adverse impacts. Maintaining the existing fuels breaks would have a slight to moderate adverse impact on soils resulting from the loss of vegetation.

Vegetation – Restoration Activities: The 10,000 acres of restoration would impact soils predominantly in Management Areas 1 and 2 and would cause slight to moderate short-term adverse impacts to the soil resource in the form of surface disturbance during site preparation and mechanical seeding. This could result in some soil loss and disturbance to biological crusts. Slight to moderate long-term benefits would be realized where these efforts successfully improve the vegetative community and soil stability. The relatively small area proposed for restoration would not result

in landscape wide benefits and would not offset impacts from the loss of 50,000 acres of remnant vegetation.

Conclusion – Soil Resources: Alternative A

The combined effects of livestock grazing, spread of invasive species, and wildland fire would have slight to moderate short- and long-term adverse impacts at the landscape level. At the local level, military maneuver activities and surface disturbing activities (including recreation) would result in slight to moderate long-term adverse impacts. The objectives would not be met. No DFCS were identified.

Soil Resources: Alternative B

Idaho Army National Guard Activities: Restricting off-road vehicle maneuver training to designated routes in 22,300 acre Bravo Area would have moderate, localized long-term benefits. Off-road maneuver training in the 20,400-acre expansion area would have moderate to high adverse long-term localized impacts due to increased erosion and soil compaction. The mandatory avoidance of maneuvering in shrub communities would limit the soil related impacts to areas that have generally been impacted by fire or previous maneuver activities. Military excavation training would be authorized on three sites (105 acres) of annual grass habitat and would cause high, long-term adverse localized impacts.

Livestock Grazing Management Activities: Impacts from livestock grazing management would be the same as those identified in Alternative A; except for the additional 3,400 acres that would be closed to grazing, and the 1,300 acres where grazing would be seasonally restricted. Areas closed to grazing would provide additional soil protection. There would be negligible improvement in the expanded closure area because most of this area has only been grazed twice in the past 25 years and the remaining closures are small, having only slight localized long-term beneficial impact.



Lands and Realty Activities: An additional utility corridor located in the center of the NCA could cause moderate to high short-term site-specific adverse impacts during the construction phase, however, these would be subject to approved BMPs and rehabilitation after the disturbance that would prevent impacts from becoming long-term. Periodic maintenance activities could cause slight short-term localized adverse impacts. The impacts from avoidance areas would be the same as in Alternative A, but would cover an addition of 63,000 acres resulting in short- and long-term beneficial impacts to soils by protecting the area from major right-of-way (ROW) actions.

Surface Disturbing Activities: Impacts from surface disturbing would be the same as described under Alternative A.

Transportation Management Activities: The approximately 6,400 acres closed to motorized vehicle use along the Snake River Canyon, includes the 1,600 acres closed under Alternative A. Impacts would be the same as those discussed in Alternative A, except the impacts would extend over the larger area. Limiting motorized use would have moderate short- and long-term localized beneficial impacts. Closing areas to motorized use would have high short- and long-term beneficial impacts as described in Alternative A; however; the additional 4,800 acres closed to motorized use would cause greater short- and long-term localized beneficial impacts.

Vegetation – Fire Suppression Activities: The impacts from fire suppression would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: The 70,000 acres of fuels treatments would have slight to moderate beneficial long-term impacts by reducing the size and severity of fires. These fuels projects would predominantly be in Management Areas 1 and 2. The change in vegetative communities from an annual grass community to a perennial community would have moderate long-term benefits at the local level on the 70,000 acres

treated. Limiting the loss of remnant shrub communities to 30,000 acres would have slight to moderate beneficial long-term localized impacts.

Vegetation – Restoration Activities: Restoration would be the same as Alternative A; however, an additional 40,000 acres converted to a desired plant communities would result in a greater and long-term benefit to the soil resource (improved site stability and productivity) mostly in Management Areas 1 and 2. The short-term adverse impacts that would occur during the actual restoration would continue to be slight because the total of 50,000 acres would not take place at one time but would be spread over approximately 20 years.

Conclusion – Soil Resources: Alternative B

Vegetation treatments would result in slight to moderate adverse local impacts over the short-term and moderate long-term benefits landscape-wide. The combined effects of livestock grazing, spread of invasive species, and wildland fire would have slight to moderate long-term adverse impacts at the landscape level. Military off-road maneuver training and surface disturbing activities would have moderate long-term localized adverse impacts. Restricting military maneuver activities would have highly beneficial localized impacts in shrub communities. The objective would be met in the majority of Management Areas 1 and 2 but not in the remainder of the NCA because areas dominated by annuals would be susceptible to soil erosion. No DFCs were identified.

Soil Resources: Alternative C

Idaho Army National Guard Activities: Restricting off-road vehicle maneuver military training activities on 22,300 acres in the Bravo Area of the OTA (IDARNG Map 4) would moderately benefit soils at the local level over the long-term. Soil disturbance from mechanical actions due to wheeled and tracked vehicles would not occur and fire starts could be reduced. There would be slight increased adverse impacts throughout the remainder of the OTA non-shrub areas relative to Alternative B



as a result of spreading the maneuver training lost from the Bravo Area to the remainder of the OTA. Military excavation training would have the same impact to soils and biological crusts as discussed under Alternative A.

Lands and Realty Activities: An additional utility corridor located south of the Snake River Canyon would cause moderate to high short-term site-specific adverse impacts during construction, however, these would be subject to approved BMPs and rehabilitation after the disturbance that would mitigate any long-term affect. An addition of 121,000 acres to the current avoidance area would have greater short- and long-term beneficial impact to soils as discussed under Alternative B.

Livestock Grazing Management Activities: Eliminating livestock grazing would result in moderate to high long-term beneficial landscape-wide impacts (including expansion of biological crusts) and includes elimination of physical disturbance to the soils from trampling and improvement of vegetative soil cover (Yeo 2005, pp 91-101).

Surface Disturbing Activities: Disturbance from recreation use, fire suppression activities, mineral material sites and other surface disturbing activities would result in moderate short- and long-term adverse impacts at the local and landscape levels. Elimination of livestock grazing would result in moderate long-term localized beneficial impacts.

Transportation Management Activities: Limiting motorized vehicle use would have moderate short- and long-term beneficial impacts. Closing areas to motorized vehicle use would have high short- and long-term beneficial impacts as described in Alternative A; however, the additional 13,200 acres closed to motorized vehicle use would cause greater short- and long-term beneficial impacts to the soils.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: The conversion of annual grassland to perennial vegetation would have the same impacts as described in Alternative B; however the impacts would occur over an additional 30,000 acres.

Vegetation – Restoration Activities: Up to 130,000 acres (63% of all degraded areas outside of the OTA) would be restored resulting in slight short-term adverse impacts. The extent of these short-term impacts would be the result of the size of the projects under restoration but would generally be localized. When restoration efforts are successful, these lands would contribute a moderate to high beneficial long-term impact to the resource from improved site stability and productivity on a landscape wide basis.

Conclusion – Soil Resources: Alternative C

Vegetation treatments would result in slight to moderate adverse local impacts over the short-term and highly beneficial long-term landscape-wide impacts. The combined effects of surface disturbing activities and wildland fire would have slight adverse impacts at the local level. Military off-road maneuver training would have moderate long-term localized adverse impacts. Restricting military maneuver activities would have highly beneficial localized impacts in shrub communities. The objectives would be met except for designated off-road Maneuver Areas of the OTA. No DFCs were identified.

Soil Resources: Alternative D

Idaho Army National Guard Activities: Restricting off-road training activities in the Bravo Area would have the same impacts as described in Alternative B. Soil disturbance from mechanical actions due to wheeled and tracked vehicles would be increased throughout the remainder of the OTA (including an additional 4,100 acres) as a result of transferring Bravo Area off-road maneuver training to these areas resulting in slight to moderate localized long-term adverse impacts. Military excavation training would have the same im-



impact to soils and biological crust as discussed under Alternative B, but would occur on only 55 acres.

Lands and Realty Activities: Impacts from the utility corridor would be the same as described in Alternative A. Rights-of-ways would result in varying degrees of disturbance to the soil resource; these are projected to be a slight long-term adverse impact at the local level.

The impacts from the avoidance area would be the same as Alternative A.

Livestock Grazing Management Activities: Impacts would be the same as described in Alternative A.

Surface Disturbing Activities: Surface disturbing activities would be the same as identified in Alternative B; however, short-term adverse impacts associated with vegetative treatments would be moderate to high at the local level. Long-term beneficial impacts from vegetation treatments would be moderate to high at the landscape level. Impacts due to mineral activity would be the same as described under Alternative A.

Transportation Management Activities: Limiting 428,400 acres of motorized vehicle use would have moderate landscape-wide short- and long-term beneficial impacts. Closing 4,400 acres to motorized vehicle use would have high, localized short- and long-term beneficial impact for the same reason as described in Alternative A.

Fire – Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Impacts would be the same as described in Alternative C.

Vegetation – Restoration Activities: Impacts would be the same as described in Alternative C.

Conclusion – Soil Resources: Alternative D

Vegetation treatments would result in slight to moderate adverse local impacts over the short-term and highly beneficial long-term landscape-wide impacts. The combined effects of livestock grazing, and wildland fire would have slight to moderate long-term adverse impacts at the landscape level. Military off-road maneuver training and surface disturbing activities would have slight to moderate long-term localized adverse impacts. Restricting military maneuver activities would have moderate to high localized short- and long-term beneficial impacts. The objectives would be met except for designated off-road Maneuver Areas of the OTA. No DFCs were identified.

4.2.8 Upland Vegetation

Summary

Based on potential loss of remnant perennial communities and limited vegetation treatments (restoration, fire and fuels management, noxious weed treatments, etc.), Alternative A would not meet the objectives or the DFC. Alternative B provides for moderate amounts of vegetation treatments and meets objectives in the majority of Management Areas 1 and 2, but not in 80,000 acres of the OTA or in the remainder of the NCA. Vegetation treatments and other management actions in Alternatives C and D sufficiently protect existing perennial communities and restore large areas of degraded habitat outside the OTA; therefore, they would meet the objectives and DFC over the long-term. However, Alternative C would do this at a greater rate than Alternative D based on the elimination of livestock grazing. Under all alternatives, continued military training activities in 80,000 non-shrub acres in the OTA used for live-fire activities and off-road maneuver training would preclude the opportunity for BLM to restore the habitat, and as such, are incompatible with the NCA-enabling legislation, and would not meet the DFC.

Assumptions

Noxious weed control in restored areas would be considered part of the restoration



project for the first three years and would then be part of the overall noxious weeds program.

- 50% of ESR treatments would require additional restoration work.
- BLM would not conduct habitat restoration projects in portions of the OTA affected by continued live firing and off-road vehicle maneuver training.
- IDARNG would conduct rehabilitation efforts in the OTA only in areas that would not be repeatedly disturbed by live firing, potential unexploded ordnance, or off-road maneuver training.
- Short-term impacts would be up to 10 years based on the amount of time it takes to establish perennial species in a desert environment. Long-term impacts are greater than 10 years.

How Activities Affect Upland Vegetation

Resources

Direct Impacts

Idaho Army National Guard Activities

- Tank, artillery, and small arms live-fire training has the potential to cause short- and long-term impacts to vegetation by increasing the probability of fire starts. Where fires occur or spread into shrub communities, perennial shrubs would be reduced and annual species may increase. In addition, repeated fires can have long-term adverse impacts on perennial grasses (Young and Evans 1978, Whisenant 1990). IDARNG fire fighters would be on site when training occurs and would respond rapidly to fires, which could limit the size of most fires caused by training activities.
- Heavy maneuver training (tanks) would impact vegetation and biological soil crusts on a short- and long-term basis. Maneuver training can adversely effect woody vegetation through the mechanical breaking of plants. The extensive root system of perennial grasses allows them to withstand some degree of mechanical damage, but repeated passes by vehicles would reduce their vigor or eliminate

them. Light maneuver training (i.e., wheeled vehicle and foot traffic) would impact vegetation in the same manner as heavy maneuver training, although to a lesser degree (Cadwell *et al.* 1998, p 35). Rotating training locations based on monitoring would reduce the irreversible long-term impacts). Military related impacts may be reduced by actions taken by IDARNG under their environmental management programs (i.e., revegetation projects, restricted access, erosion control, training site monitoring, etc.)

- Construction and use of target areas, excavation sites, range towers, and hardened bivouac sites and administrative assembly areas (IDARNG Map 1) would have short- and long-term, localized adverse impacts to vegetation. Disturbance adapted species would dominate or vegetation would be completely eliminated.
- Temporary bivouac sites could cause short-term loss or reduction of vegetation.

Lands and Realty Activities

- Consolidating public land ownership through purchase or exchange would allow BLM to acquire and protect important habitat in the short-term.

Livestock Grazing Management Activities

- Livestock grazing impacts on perennial plants are a function of timing, intensity, season, and duration of livestock use. The potential for livestock to adversely affect plants can be greatest when consistent heavy spring use occurs during the critical growth period of forage species. Trampling, over utilization, and defoliation of palatable species, would have short-term adverse impacts on upland vegetation by reducing their vigor, abundance, and reproductive ability; thereby, limiting the capacity of residual perennial communities to reestablish (Blaisdell and Pechanec 1949; Balph and Malechek 1985; Alzerreca-Angelo *et al.* 1998; and Jones 2000). Livestock grazing may benefit exotic species that are better adapted to grazing at the expense of native species (i.e.,



Sandberg bluegrass) which exhibit reduced growth and reproduction when grazed, resulting in a transition from native perennial species to exotic annual species over the long-term (Kimball and Schiffman 2003).

- Annual grasses are better adapted for livestock grazing, and thus, livestock grazing impacts to annual grasses are less than the impacts to perennial grasses (Kimball and Schiffman 2003). While annual grasslands have altered structural and functional components compared to perennial communities, in years with average or above average precipitation they produce adequate litter to protect soil structure, hydrologic function, and energy flow components of the site. Livestock grazing in the spring can reduce biomass which may reduce wildfire potential; however, grazing that reduces litter to inadequate levels could adversely affect site productivity by reducing annual vegetation to levels that would no longer meet the minimum requirements of the site.

Recreation Management Activities

- Between 1980 and 2004, human-caused fires were responsible for 70% of fire ignitions that burned 30% of the NCA. A change in campfire regulations could help reduce one component of human-caused fires that accounted for 4% of fire starts and 10% of the acres burned between 1980 and 2004.
- Vegetation would be eliminated to create hardened facilities. Increased recreational use adjacent to facilities could eliminate vegetation over the long-term.

Surface Disturbing Activities

- The short- and long-term impacts of surface disturbing activities (i.e. recreation, off-road vehicle use, rights-of-way, and communication facilities) include crushing and destroying plants. Repeated localized impacts can limit the ability of desirable plants to reestablish by reducing their numbers and reproductive capability, thereby facilitating the establishment of

undesirable plants, such as noxious or invasive species.

Transportation Management Activities

- Motorized vehicle use impacts vegetation in the short-term by crushing and shearing plants. Repeated disturbances over the long-term eliminate vegetation in the immediate tracks.

Vegetation – Fire Suppression Activities

- Depending on the type of tactics used, short-term effects of fire suppression activities would be adverse in the case of large burnout operations, or ground disturbing activities such as dozer use. Dozers destroy or damage upland vegetation and large burnout operations could remove existing shrub communities and prevent or delay long-term recruitment and expansion of these communities. However, the use of dozers and burnout operations could potentially save larger areas of upland vegetation from burning.
- The effectiveness of fire suppression capability could be minimized in years when average to above-average precipitation results in heavy accumulations of hazardous fuels, and when summer storms cause multiple lightning strikes. Cheatgrass dominated areas would be susceptible to frequent fires over the long-term and larger burns could be expected during extreme conditions.

Vegetation – Fuels Management Activities

- Treatment activities, including maintenance of fuel breaks, could result in the short- and long-term loss of desirable remnant perennial vegetation through the repeated use of herbicides, prescribed fire, and ground disturbing activities. In treated areas, reduced competition and disturbance would increase the potential for the establishment and spread of noxious weeds over the short-term. Seeding treated areas with aggressive, adapted non-native species could impact desirable perennial



al. 2004). Seeding with non-natives could have short- and long-term benefits by stabilizing soils and providing an intermediate state between a disturbed community and the desired plant community (Monsen *et al.* 2004).

Vegetation – Noxious Weeds Management Activities

- Noxious weed control activities, including chemical and mechanical treatments, could impact off-site and non-target species, including desirable perennial vegetation, in the short-term.
- Communities occupied by noxious weeds are more likely to become colonized by increasingly dense patches of noxious weeds following disturbance events. These patches are a source for noxious weeds to spread into adjacent areas.

Vegetation – Research Areas

- Experimental vegetation treatments in research areas could cause adverse impacts to desirable perennial vegetation over the short-term. Disturbed areas are generally more susceptible to invasive and noxious weeds over the short-term. In successfully restored areas, perennial vegetation and a historic fire regime would be established.

Vegetation – Restoration Activities

- The degree of habitat degradation and the specific methods used to accomplish restoration are the primary factors influencing short-term impacts of restoration to upland vegetation. Restoration activities that supplement existing desirable vegetation (i.e., re-establishing shrubs in perennial grass dominated communities) may employ methods such as aerial seeding that would have no direct impact to existing vegetation in the short-term, unless the project area(s) are impacted through soil-disturbing mechanical seedbed preparation. Areas that require more complete restoration (i.e., converting a cheatgrass dominated site to a perennial vegetation community) would use a wider range of

methods with a greater opportunity for short-term impacts to vegetation (Monsen *et al.* 2004). Prescribed burning or chemical applications could also reduce or eliminate remnant desirable species in the short-term in the target area and in adjacent plant communities (Monsen *et al.* 2004). Mechanical methods could also damage or destroy desirable vegetation. Native vegetation in dry, sandy soils is generally more susceptible to mechanical damage than vegetation in loamy soils.

- Restoration through the use of prescribed fire and mechanical treatments would impact biological soil crusts. Crusts are generally not prevalent in annual dominated communities; therefore, impacts would be localized but could extend into the long-term because of the relatively slow recovery rate of biological soil crusts (Belnap *et al.* 2001, pp 49-50, 61-62).

Visual Resources Management Activities

- Areas containing VRM Classes I and II restrict most surface disturbing activities (i.e., recreation, construction of livestock management facilities, military training, etc.) that could visually affect the characteristics of the natural landscape and would consequently reduce or eliminate the impacts (i.e. soil compaction, loss of desirable perennial species, increase in invasive and noxious weeds, short fire return interval). Restoration and fuels management activities that don't disturb the soil could occur in Class I areas. Vegetation treatments that disturb the soil or otherwise affect the visual characteristics of the landscape could occur in Class II areas if the long-term result was an improvement in visual resources, although design and implementation requirements would be stricter than for Class III and IV areas.
- VRM classes III and IV have more moderate tolerances for modifications and allow for more surface disturbing activities. Since these areas are generally subject to greater levels of use from a greater number of users, the probability of adverse impacts (short- and long-term) affecting



upland vegetation, as discussed above, would be elevated. Vegetation treatments would not be constrained by these classifications.

Indirect Impacts

Idaho Army National Guard Activities

- Impacts to soils would indirectly affect perennial grasses over the long-term (see discussion under Miscellaneous Soil Disturbing Activities).
- Restrictions on training in shrub communities would help maintain shrub stands in the OTA over the long-term. Perennial grasses and forbs could increase over the long-term in relatively undisturbed shrub communities (no off-road vehicle maneuver training and protected from fire). These areas could move toward the desired fire regime condition class over the long-term. Where off-road maneuver training occurs in grasslands adjacent to existing shrub communities, expansion of shrub communities into those grasslands would be limited (Jones and Kunze 2004, p 54). Shrubs would likely be unable to establish where continued surface disturbance from off-road maneuvers and live firing occurs. These areas would continue to be dominated by introduced annual grasses and forbs. These areas and adjacent shrub stands would remain susceptible to frequent fires over the long-term.
- Rehabilitation efforts could have long-term benefits in localized areas of existing shrub communities.

Lands and Realty Activities

- Approximately 19% of public lands in the NCA are within one-quarter mile of private or State lands. Most private lands in the area are cultivated; however, private lands near expanding population centers are susceptible to residential, commercial, or industrial development. Consolidation would reduce short- and long-term opportunities for offsite impacts from these types of development, such as increased off-highway vehicle use, introduction and

spread of noxious weeds, chemical overspray, trash or debris, and human caused fires. Current habitat conditions on State lands are generally similar to adjacent public lands; however, State lands are available for disposal where it meets the State's mandate to maximize economic return to the school endowment fund. Acquisition of State and private lands would ensure they remain undeveloped over the long-term, and would reduce fragmentation of vegetation communities in the short- and long-term. In the short- and long-term, consolidated Federal ownership would increase management efficiency, and reduce management costs and liabilities. With fewer private and State inholdings, BLM could design larger weed control, restoration, and hazardous fuel reduction (vegetation treatment) projects. On consolidated lands, these projects would cost less per acre and would entail less off-site project liability associated with treatment efforts that could adversely affect adjacent non-public lands.

- Realigning the current NCA boundary to more recognizable on-the-ground locations could enhance management of upland vegetation in the short- and long-term. Especially if new areas that become a part of the NCA through realignment were previously subject to soil and vegetation disturbing activities that would not be allowed or would be more restricted in the NCA, such as motorized vehicle use. Areas that would no longer be in the NCA would not be managed with the emphasis of maintaining or improving raptor prey habitat. Vegetation treatments could have a lower priority or would not occur in these areas.
- Withdrawing the OTA Impact Area to the Department of Defense (DoD) would be an administrative action that entails no direct impacts on the ground; however, the area would be dominated by non-shrub communities and would be susceptible to repeated wildfires. Adjacent shrub communities would also be susceptible to wildfires over the long-term.



Livestock Grazing Management Activities

- Soil compaction occurring during periods of high soil moisture or in areas of concentrated use would reduce water infiltration, restrict root depth, and limit seed germination (Hart *et al.* 1993). Mechanical impacts to soils and biologic crusts would reduce soil stability and fixed nitrogen availability (Belnap 1995; Eldridge and Green 1994). Soil disturbance from hoof shear and bedding would create habitat for non-native invasive and noxious weeds species, which could increase the overall competition with native species for limited resources (water, nutrients, space, etc.) (Laycock and Conrad 1981). Each of these impacts, or a combination of all, would reduce the reproductive capacity of residual perennial communities (Cook and Child 1971; Yensen 1982). Long-term impacts from reduced perennial reproduction and increased competition from invasive species could result in increased fuel loads that would decrease the interval between disturbance events (wildfire) and potentially enhance the size and severity of those events resulting in an accelerated expansion of exotic annual dominated communities.
- Livestock grazing after seed set could have limited, short-term benefits for upland vegetation by dispersing seeds and creating microhabitats for native species through localized soil disturbance (Burkhardt 1996). Livestock can provide short-term benefits by reducing accumulated fuel loads that could potentially increase the frequency, size, or severity of a wildfire (Pellant 2000, p 105); however, the effectiveness of livestock to manage fuels depends on a variety of factors including season of use, pasture size, and amount of fuel loading in a given year. Spring grazing would have the best potential for reducing fuel loads; however, effective fuel control during high precipitation years may require stocking levels that would be detrimental to desirable species and could result in increased mechanical disturbance to soil. In years with greater

than average precipitation, timing of grazing for removal of annual grass biomass is key to reducing the risk of fire. Palatability and rapid growth of cheatgrass is typically earlier than the rapid growth phase for perennial native grasses. Also, cryptobiotic crusts are more resilient in spring than later in the season when dry.

- Removing livestock use would have benefits akin to those realized through grazing systems that provide rest or deferment during the growing season. It would allow native perennial species to increase over the long-term and could render these areas more resistant to invasion by exotic species (Anderson and Holte 1981; Anderson and Inouye 2001). Removing grazing of perennial vegetation during the flowering and seed set timeframes can lead to increased vigor, increased seed production, and increased habitat diversity. In these areas, removal of grazing would help reestablish native herbaceous perennial species which serve as reliable pollen sources for native pollinators (insects). These pollinators are necessary for the long term survival of many plant species.

Recreation Management Activities

- Reducing human-caused fires would allow vegetation conditions in unburned areas to improve over the long-term allowing upland vegetation to progress towards a historic fire regime.
- Recreation developments usually attract users to an area, which may increase impacts by concentrating use. Developed facilities contain the impacts from surface disturbance with the goal of protecting the surrounding area. Localized impacts to vegetation adjacent to recreation facilities would be adverse over the long-term, primarily from surface disturbances and the potential introduction of noxious weeds. This increased use may also have beneficial impacts by attracting users to an area with facilities that can help mitigate the impacts of use (i.e., hardened roads) and moving them away from sensitive areas or areas without adequate facilities to meet



the demand. Over the long-term, impacts from dispersed recreation (i.e., destruction of vegetation, introduction of invasive and noxious weeds, increased fire starts) could be reduced.

Surface Disturbing Activities

- The loss of a plant canopy on soils would increase the potential for wind erosion, the primary erosive force in the NCA, and increase erosion from raindrop impact. Where surface disturbance creates soil compaction, water infiltration is reduced, resulting in increased overland flow and further potential for erosion and off-site impacts from deposition. Invasive and noxious weeds that become established in disturbed areas may spread into adjacent areas resulting in increased competition for resources over the short- and long-term, further impacting vegetation communities. The resulting long-term impacts include increased fire frequency as a result of the introduction of invasive annual grasses, reduced water infiltration, limited seed germination from soil disturbance, and reduced soil stability and fixed nitrogen availability resulting from the loss of biological soil crusts (Belnap 1995).
- Soil compaction would reduce water infiltration, restrict rooting depth, and limit seed germination (Hart *et al.* 1993). Mechanical impacts to soils and biological soil crusts would create habitat for invasive and noxious weed species, which would increase the overall competition for limited resources (water, nutrients, space, etc). Each of these impacts, or a combination of all, would reduce the reproductive capacity of perennial communities over the long-term (OTA 2004; USDI 1996). Long-term impacts from reduced perennial reproduction and increased competition from invasive species could result in increased fuel loads that would decrease the interval between disturbance events (wildfire) and potentially enhance the size and severity of those events. The result would be a shift away from perennial-dominated communities toward annual

dominated ones where continual localized surface disturbance occurs, and a static condition where limited surface disturbance occurs.

- Dust from surface disturbing activities (i.e. motorized vehicle use, IDARNG training, areas of concentrated livestock use, mineral material sites) could adversely impact vegetation by affecting photosynthesis, respiration, transpiration, and reproduction (Farmer 1993, Reheis 1995, Trombulak and Frissell 2000). Native vegetation could be replaced by invasive and noxious weeds that are less susceptible to dust. Actions that reduce dust could mitigate these impacts.
- Establishing an avoidance area would potentially reduce surface disturbance in that area by minimizing the number of rights-of-way and surface disturbing activities.

Transportation Management Activities

- Vehicle use could alter species composition and community dynamics in immediately adjacent areas by compacting and disturbing soils, which reduces water infiltration, restricts root depth, and limits seed germination, reducing the potential for re-establishment of perennial communities (Argonne National Laboratory 2004). Vehicles could facilitate dispersion of invasive and noxious weeds from sources within the NCA and introduce noxious weeds from sources outside the NCA (Sheley *et al.* 1999, p 69). As a consequence, invasive weeds could be introduced in disturbed areas and spread to adjacent areas over the short-term, potentially shortening fire return intervals over the long-term and resulting in further disturbance to adjacent perennial communities. Vehicles accounted for approximately 10% of human-caused fires between 1980 and 2004. Fires caused by vehicles and associated recreational activities could adversely affect vegetation over the short- and long-term.
- Route designation would eliminate some redundant routes resulting in larger contiguous (less fragmented) areas that are



not subject to impacts associated with ORVs (Knick *et al.* 2003, pp 617-618). A reduction in fragmentation would increase the resilience of areas to disturbance factors over the long-term.

Vegetation – Fire Suppression Activities

- Fire suppression priorities could have short- and long-term adverse effects on upland vegetation if priority is given to protecting occupied slickspot peppergrass habitat. When suppression resources are concentrated on protecting occupied slickspot peppergrass habitat, other important remnant and restored shrub communities could be lost to fire as a tradeoff. Short-term beneficial effects would occur where suppression resources concentrate on protecting remnant and restored shrub communities. These communities are not adapted to fire and are difficult to successfully restore when burned. Long-term effects could be beneficial and adverse, depending on the amount of vegetation lost or saved from fire. Repeated successful suppression efforts could lead to a historic fire regime, because areas that are successfully protected from burning would allow perennial species the opportunity to expand through natural recruitment. Where suppression is either unsuccessful or does not occur because of limited resources (i.e. multiple fire starts require managers to prioritize suppression efforts), affected areas would not move towards a historic fire regime. Non-fire adapted shrubs would be eliminated. A variety of factors, including pre-burn species composition and fire intensity, would determine what species dominate after a burn. Annual species could recover within 1 to 5 years post-fire (Piemeisel 1951). Remnant perennial plants, especially Sandberg bluegrass, could survive in these areas, but would be adversely affected by repeated fires and would be expected to disappear (Laycock 1991 p 430). Annual communities (primarily cheatgrass) would be slightly impacted by fire over the short-term.

Vegetation – Fuels Management Activities

- Hazardous fuels treatments and fuel breaks could protect adjacent areas by reducing the size and severity of wildfires in the short- and long-term.
- Successful projects would have beneficial long-term impacts by improving upland vegetation and moving vegetation from annual to perennial dominated communities. Successful fuel treatments could have a long-term impact by leading to a historic fire regime in treated and adjacent areas. Because these sites would have a greater amount of time to recover and reestablish structural and functional components, they would have a greater potential to naturally recover after future fires (Peters and Bunting 1992). Areas protected by hazardous fuels projects would have an opportunity to expand through natural recruitment over the long-term (Longland and Bateman 2002).

Vegetation – Noxious Weeds Management Activities

- Reducing or eliminating weeds would reduce competition for scarce resources and improve the ecological condition of vegetation communities and their ability to withstand and recover from disturbance events in the short- and long-term. Because of the competitive nature of noxious weeds, most infestations would be treated more than one time, reducing the total acres that could be affected by this program.
- Activities that address the sources of noxious weeds (i.e. IDARNG requirement to wash vehicles from outside the Treasure Valley) would help reduce the potential for establishing new populations of noxious weeds over the short- and long-term.

Vegetation – Research Areas

- Weeds that become established in research areas would adversely impact adjacent communities if they spread to those areas. The success of restoration efforts in other



areas could improve through the knowledge gained in research areas.

Vegetation – Restoration Activities

- Restoration activities that reduce competition or disturb the soil could increase the potential for the establishment of noxious and invasive weeds over the short-term if seeded species do not out-compete them. Treated areas would become more resistant to noxious and invasive weed establishment over the long-term as desirable perennial species become established.
- Short-term reductions in vegetation cover would make soils more susceptible to erosion, which could reduce productivity over the short- and long-term depending on the degree of soil loss. Soils with high erosion potential and that are dominated by annual vegetation cover (primarily within 6 miles of the north rim of the Snake River) are most vulnerable to this impact.
- As perennial species become established in treated areas, natural succession processes would return over the long-term. Shallow rooted annual species would be replaced by a diversity of moderate to deep-rooted perennial species that more closely represent the original functional and structural components of the sites being restored. The return of these components would result in a variety of long-term benefits including improved nutrient cycling, increased and more stable productivity, greater resistance to disturbance (including establishment of noxious weeds), a reduction in fragmentation, and longer intervals between fires (Tillman *et al.* 1997, p 1301; Hooper and Vitousek 1997 pp 1303-5).
- Restored areas would provide long-term benefits to adjacent perennial communities by reducing sources of noxious or invasive species and threats from fire (Keeley *et al.* 1999).
- Ecological site, pre-treatment conditions, restoration methods available, and precipitation conditions would have the greatest influence on the success of restoration efforts and, therefore, the number of treat-

ments required. Success would be greatest in Wyoming big sagebrush sites where: 1) some desirable perennial species exist (Management Area 1); 2) minimal ground disturbing treatments are used; and 3) average or above average precipitation conditions occur. Success rates would be lowest in salt desert shrub sites dominated by exotics (management area 2), where ground-disturbing treatments are required, and where precipitation conditions are below average. Successful restoration could occur within four years under the first set of conditions, but could require 10 or more years under the second set of conditions, since multiple treatments could be required (Monsen *et al.* 2004).

Visual Resources Management Activities

- Limiting use in Class I and II designated areas may distribute or concentrate use to other areas, which would have a short- or long-term adverse affect on upland vegetation.

Discussion of Impacts by Alternative

Upland Vegetation: Alternative A

Idaho Army National Guard Activities: Disturbance from off-road maneuver training and live-fire activities would have moderate localized adverse impacts in non-shrub communities at the landscape level. There could be slight to moderate long-term adverse impacts at the local level because of the susceptibility to fire of shrub communities adjacent to annual grass areas. The voluntary policy of avoiding shrub areas during off-road maneuver activities would help maintain remnant shrub communities. Continued off-road maneuvers and live firing in non shrub areas would preclude BLM's ability to restore these areas. Should the voluntary policy of avoiding shrub areas during off-road maneuver training change, there could be high long-term adverse impacts to shrub communities throughout the OTA. Other IDARNG activities would have slight localized impacts over the long-term. Use of the existing 5-acre excavation site, hardened sites and roads would have no additional impacts on vegetation.



Lands and Realty Activities: Consolidating public ownership would result in slight benefits at the local level in the long-term. A 43,000-acre avoidance area would have slight localized long-term beneficial effects by limiting ground disturbance normally associated with utility developments. Use and maintenance of the existing utility corridor would have negligible long-term adverse impacts at the local level.

Livestock Grazing Management Activities: Determining stocking levels, season, and duration of livestock use through the Idaho S&G process (Appendix 3) would result in slight to moderate localized benefits to perennial communities over the long-term and slight benefits to remnant perennial species in annual communities over the long-term. Livestock grazing exclusions and restrictions on <1% of the NCA would have a moderate beneficial affect on upland vegetation at the local level over the short- and long-term. Reducing 200 acres of hazardous fuels in Wildland Urban Interface (WUI) sites through intensive livestock grazing would cause short-term moderate localized adverse affects to annual and perennial vegetation. However, the reduction of wildfire potential would have moderate short-term localized beneficial effects on adjacent upland vegetation. Limiting livestock grazing in annual grasslands to leave minimum amounts of residual litter would have little or no short-term adverse impacts to annual communities. However, leaving residual annual vegetation would protect watershed functional components (soil stability, hydrologic function, and energy flow); therefore, slight, long-term beneficial impacts to annual communities would be realized. These benefits may be offset in years when production of annuals is low or nonexistent because of climatic conditions.

Recreation Management Activities: If there were no restrictions on campfire locations, except during emergency fire closures, there would be a slightly increased probability of fires escaping and burning adjacent vegetation. Escaped campfires would slightly contribute to a portion of the expected loss of

50,000 acres of existing native shrub habitat. Expanding existing developed recreation sites would cause slight adverse short-term localized impacts; however, if new sites are not developed, slight to moderate adverse impacts would occur at the landscape level over the long-term.

Surface Disturbing Activities: Actions that limit or eliminate surface disturbing activities in small areas would provide slight localized short-term benefits. Actions that cover large areas would result in slight beneficial impacts at the landscape-level over the long-term and would slightly reduce habitat fragmentation. Use of the 16 active mineral material sites and 29 inactive sites would result in high adverse localized short-term impacts. Although the impacts would primarily occur at the local level, they could contribute to landscape level weed invasions because the sites occur throughout the NCA.

Transportation Activities: Maintaining vehicle closures on 1,600 acres would have moderate localized beneficial long-term impacts. Application of the route designation criteria would result in slight to moderate long-term benefits at the landscape level. Restoration of closed routes would result in slight localized short-term adverse impacts and moderate landscape-level long-term beneficial impacts.

Vegetation – Fire Suppression Activities: At the landscape level, fire suppression priorities would be highly beneficial to shrub communities over the long-term and would have moderate adverse impacts to remnant perennial plants in annual communities. Highly adverse impacts to shrub communities would occur when suppression resources are sufficient to protect only designated slickspot peppergrass management areas.

Vegetation – Fuels Management Activities: Approximately 2% (10,000 acres) of the NCA would be treated for hazardous fuels reduction. There would be relatively few acres treated resulting in slight short-term adverse impacts and slight to moderate long-term



beneficial impacts primarily in Management Areas 1 and 2. Fuel breaks would result in moderate long-term benefits at the landscape level. Benefits from fuels management would be eclipsed by the approximate 50,000 acres of remnant shrub communities that are estimated to burn during the same timeframe.

Vegetation – Noxious Weeds Management Activities: The relatively few acres treated would be inadequate for controlling the introduction and spread of weeds and would potentially result in moderate short- and long-term landscape wide adverse impacts.

Vegetation – Research Areas: No research areas are proposed.

Vegetation – Restoration Activities: Approximately 3% of degraded communities would be restored resulting in slight short-term adverse impacts and slight to moderate long-term beneficial impacts primarily in Management Areas 1 and 2. These restored areas would provide some degree of protection to remnant shrub communities over the short- and long-term. However, the long-term benefits of restoration would not provide adequate protection on a landscape level nor would they replace the estimated 50,000 acres of shrubs that would be lost to wildfire in the long-term.

Visual Resources Management Activities: Slight long-term beneficial impacts from Class I or II designations would occur primarily on the local level over a small portion of the NCA (approximately 7%). Class III and IV designations would provide slight protection from surface disturbance landscape-wide and would not have an impact on vegetation.

Conclusion – Upland Vegetation: Alternative A

Land consolidation, restrictions on surface disturbing activities, and areas closed to motorized vehicle use would provide slight to moderate localized benefits over the long-term. Vegetation treatments could have slight adverse localized impacts in the short-term, but would have slight to moderate long-term

benefits at the local level. Fire suppression priorities could moderately benefit shrub communities and could adversely affect annual communities slightly at the landscape level over the long-term. Implementation of S&Gs, application of route designation criteria, avoidance areas, and VRM classifications would provide slight to moderate long-term benefits at the landscape level. IDARNG activities, livestock grazing in annual communities, and limited recreation facilities and weeds treatments would have slight to moderate adverse impacts at the landscape scale over the long-term.

Overall, there would be a landscape-wide loss of 40,000 acres of shrub communities and further ecological degradation, principally as a result of fire. In addition, continued off-road maneuvers and live firing would preclude BLM from restoring 80,000 acres of degraded non-shrub habitat in the OTA. The objectives and DFC would not be met because vegetation loss through fire and degradation would exceed BLM projections for restoration.

Upland Vegetation: Alternative B

Idaho Army National Guard Activities: Restricting off-road maneuver training to designated routes would moderately reduce impacts to vegetation over the short- and long-term in the Bravo Area (Management Area 1). Shrub communities in the Bravo Area could expand over the long-term into grass-dominated areas that are not repeatedly disturbed, which would provide slight to moderate local benefits. Approximately 50% of the training in the Bravo Area would be redistributed to the other maneuver areas. Impacts to grassland communities would be greater in these areas than in Alternative A. The mandatory avoidance of shrub areas during off-road maneuver training would help maintain remnant shrub communities; however, continued off-road maneuvers and live firing in 80,000 non shrub acres of the OTA would preclude BLM ability to restore these degraded habitats. Shrub and perennial grass communities account for approximately 37% of the proposed expansion area. The introduction of training activity into the expan-



sion area could moderately reduce the amount of perennial grasses and increase the amount of cheatgrass, thus increasing the likelihood of fire over the short- and long-term. Restoration would not occur in the 20,400-acre expansion area; however, IDARNG could rehabilitate isolated areas within remnant shrub communities. These additional acres would slightly benefit from IDARNG fire suppression efforts during training activities. The impact of other training activities would be as described in Alternative A.

Lands and Realty Activities: The effects of land purchases and exchanges on upland vegetation would be the same as Alternative A. However, there would be an increased likelihood that consolidation activities would moderately benefit treatment activities at the local level, because larger areas would be treated over the long-term. There would be no change in the NCA boundary. A 105,000-acre avoidance area would have slight long-term beneficial effects on upland vegetation by limiting ground disturbance over the long-term. A utility corridor would have slight to moderate long-term adverse impacts at the local and possibly at the landscape level through the introduction of weeds.

Livestock Grazing Management Activities: Impacts from implementing S&Gs (Appendix 3) would be the same as Alternative A. However, based on the increased number of acres being excluded, seasonally restricted, or rested for restoration and fuels management purposes, adverse impacts from livestock grazing on perennial and annual communities would be slightly decreased over a greater area. In vegetation treatment areas, removing livestock would not increase fuel loads because fuel treatments would result in reduction of fuels. Managing Sandberg bluegrass areas to benefit Piute ground squirrels would have slight to moderate short- and long-term localized benefits. Using livestock grazing as a tool to reduce hazardous fuels would have the same impacts as Alternative A. The total number of acres potentially affected would be greater, but impacts would still occur primarily at the local

level. Limiting livestock grazing in annual grasslands to leave minimum amounts of residual litter would have the same affect as Alternative A.

Recreation Management Activities: Limiting campfires would result in slight long-term benefits at the local level. Short-term adverse impacts associated with developing two new recreation sites would be greatest in shrub communities in the vicinity of the proposed Three Pole site. Impacts from increased recreation use could slow recovery of shrubs in the Initial Point area over the long-term; however, impacts would be slight and localized. The new sites would slightly reduce long-term impacts from dispersed recreation in the western portion of the NCA; however, the proposed sites may not be adequate to address increased recreation use associated with projected population increases.

Surface Disturbing Activities: Impacts of limiting or eliminating surface disturbing activities would be the same as described in Alternative A. Impacts associated with the continued use of the 16 active mineral material sites would be as described in Alternative A, but would occur only at the local level.

Transportation Management Activities: Beneficial impacts to vegetation associated with areas closed to motorized vehicles would be the same as Alternative A except that there would be a larger area closed to motorized vehicle use. Application of the route designation criteria would have the same impacts as Alternative A.

Vegetation – Fire Suppression Activities: Impacts would be as described in Alternative A.

Vegetation – Fuels Management Activities: Approximately 14% (70,000 acres) of the NCA would be treated for hazardous fuels reduction. The majority of Management Areas 1 and 2 would be treated resulting in slight short-term local adverse impacts and moderate long-term beneficial impacts at the landscape level. Fuel breaks would result in moderate



long-term benefits at the landscape level. Although the hazardous fuels treatments would act as a substantial protection of remnant perennial communities and restoration area, up to 30,000 acres of shrub communities could still be lost.

Vegetation – Noxious Weeds Management Activities: The level of treatment would be slightly to moderately beneficial in Management Areas 1 and 2 over the long-term; however, noxious weeds could increase at the local level and potentially at the landscape level in Management Area 3.

Vegetation – Research Areas: As a result of up to 1000 acres being utilized for research, slight short-term adverse impacts would occur at the local level. Slight to moderate long-term beneficial impacts would occur at the local, and possibly landscape level.

Vegetation – Restoration Activities: Focusing restoration projects in Management Area 1 (outside the OTA) and portions of Management Area 2 (14% of the NCA) would result in slight short-term adverse impacts at the local level and moderate long-term benefits in restored areas and adjacent perennial communities at the landscape level. While an estimated 30,000 acres of shrubs may be lost to wildfire, the proposed restoration efforts would result in a net gain of 20,000 acres of shrub cover over the long-term.

Visual Resources Management Activities: Class III and IV designations would provide slight protection from surface disturbance landscape-wide and would not have an impact on vegetation.

**Conclusion – Upland Vegetation:
Alternative B**

Individually, areas closed to motorized vehicle use, and restrictions on surface disturbing activities and livestock grazing in Sandberg bluegrass communities, and consolidating land ownership would provide slight to moderate localized benefits over the long-term; how-

ever, combined the impacts would be slight at the landscape level. Vegetation treatments and research areas could have slight adverse localized impacts in the short-term, but would have moderate long-term benefits at the landscape level. Fire suppression priorities could moderately benefit shrub communities and could adversely affect annual communities slightly at the landscape level. Implementation of S&Gs and application of the route designation criteria would provide slight to moderate long-term benefits at the landscape level.

Surface disturbing activities and development of recreation facilities could have slight to moderate short- and long-term localized adverse impacts. IDARNG off-road training, utility development, livestock grazing in annual communities, visual resources classifications, and inadequate recreation facilities and weeds treatments would have slight to moderate short- and long-term adverse impacts at the landscape scale. Overall, there would be a slight landscape-wide net increase (20,000 acres) in shrub communities, and degraded communities would occur primarily in Management Area 3 and non-shrub portions of the OTA. Under this alternative, continued off-road maneuvers and live firing would preclude BLM from restoring 80,000 acres of degraded non-shrub habitat in the OTA. The objective would be met. The DFC would be met except for the Impact Area and designated off-road Maneuver Areas of the OTA and in Management Area 3 where shrub communities would not increase.

Upland Vegetation: Alternative C

Idaho Army National Guard Activities: Restricting off-road maneuver training to three designated routes in the Bravo Area (Management Area 1) would moderately benefit shrub and grass communities at the local level for the short-and long-term. Shrub communities in the Bravo Area could expand over the long-term into grass-dominated areas. Approximately 80% of the training in the Bravo Area would be redistributed to the other maneuver areas. Impacts to grassland communities would be greater in these areas than in



Alternatives A and B. The benefit of mandatory avoidance of shrub communities in the remainder of the OTA would be as described in Alternative B. Removal of 3,900 acres of slickspot peppergrass habitat from the OTA would have no impact on upland vegetation. The impact of other training activities would be as described in Alternative A. Under this alternative, continued off-road maneuvers and live firing would preclude BLM from restoring 80,000 acres of degraded non-shrub habitat in the OTA.

Lands and Realty Activities: The effects of land purchases and exchanges on upland vegetation would have a moderate long-term benefit at the landscape level. The proposed change in the NCA boundary would result in a net loss of approximately 2,100 acres of degraded or disturbed habitat that would no longer be part of the NCA restoration priorities, which would result in little or no impact to the NCA. A 163,600-acre avoidance area would have slight beneficial long-term landscape-wide effects on upland vegetation by limiting ground disturbance associated with major utility developments. A utility corridor would have slight to moderate long-term adverse impacts at the local level.

Livestock Grazing Management Activities: Removing all livestock grazing, except for fuels management projects, would result in moderate to high landscape-wide long-term benefits for perennial communities. The loss of short-term beneficial impacts associated with livestock grazing would be negligible, because restoration and rehabilitation projects would increase. Using livestock grazing as a tool to reduce hazardous fuels would have the same impacts on upland vegetation as Alternative B.

Recreation Management Activities: Impacts of limiting campfires would be the same as described in Alternative B. Impacts associated with the proposed Three Pole and Initial Point sites would be as described in Alternative B. Shrub and annual grass communities dominate in the vicinity of the proposed Celebration

Park Annex and Guffey Butte sites. Increased recreation use and the potential for increased fire starts could have slight long-term adverse impacts to vegetation in the vicinity of these sites. The proposed sites would help reduce some long-term impacts from dispersed recreation in the western portion of the NCA and would more adequately address increased recreation use associated with projected population increases than Alternative B. The net results would be slightly beneficial at the landscape level.

Surface Disturbing Activities: The impacts of limiting or eliminating surface disturbing activities would be the same as described in Alternative A. Impacts associated with the continued use of the 16 active mineral material sites would be as described in Alternative A, but would occur only at the local level.

Transportation Management Activities: The beneficial impacts to vegetation associated with area closures (approximately 13,200 acres) would be the same as Alternative A except that there would be a larger area closed to motorized vehicle use. The application of the route designation criteria would have the same impacts as Alternative A.

Vegetation – Fire Suppression Activities: Impacts would be as described in Alternative A.

Vegetation – Fuels Management Activities: Approximately 20% (100,000 acres) of the NCA would be treated for hazardous fuels reduction. The majority of the NCA outside of restored and remnant shrub communities would be treated resulting in moderate short-term local adverse impacts and long-term highly beneficial impacts at the landscape level. Fuel breaks would result in moderate long-term benefits at the landscape level. The hazardous fuels treatments would act as a substantial protection of remnant perennial communities and restoration areas and would limit the loss of shrub communities to no more than 15,000 acres.



Vegetation – Noxious Weeds Management

Activities: The types of impacts to vegetation from weed treatments would be the same as described in Alternative A; however, they would occur at a greater scale than either Alternative A or B. Because of the extensive level of soil disturbance associated with vegetation treatments, there could be a high potential for noxious weed infestation that may exceed the level of treatment proposed (4,000 acres). Should this happen, over the long-term there could be moderate to high adverse impacts at the local level. Long-term improvements in rangeland and habitat condition resulting from habitat restoration and fuels treatments would increase resistance to weed infestations, ultimately reducing the overall area susceptible to infestation.

Vegetation – Research Areas: Although a larger area would be subject to research activities, the impacts would be the same as Alternative B.

Vegetation – Restoration Activities: All high priority areas and an additional 102,000 of degraded habitat outside the OTA (approximately 63% of degraded habitats) would be restored. Restoration of shrubs in perennial grass communities would occur on up to 47,000 acres resulting in minimal long-term landscape-wide adverse impacts to existing perennial vegetation. In the remaining areas that are being fully restored, short-term impacts to existing perennial vegetation would occur over a greater area than Alternatives A and B. While an estimated 15,000 acres of shrubs may be lost to wildfire, the proposed restoration efforts would result in a net gain of 115,000 acres of shrub cover over the long-term.

Visual Resources Management Activities: Slight long-term beneficial impacts from Class II designations would occur primarily at the landscape level (approximately 39%). Class III and IV designations would provide slight protection from surface disturbance landscape wide and would not have an impact on vegetation.

Conclusion – Upland Vegetation:

Alternative C

Individually, areas closed to motorized vehicles, restrictions on surface disturbing activities, and consolidating land ownership would provide slight to moderate localized benefits over the long-term. Vegetation treatments and research areas could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit shrub communities at the landscape level and could adversely affect annual communities slightly at the local level. Application of the route designation criteria and protection afforded by the VRM Class II designation would provide slight to moderate long-term benefits at the landscape level. Removal of livestock would be highly beneficial to perennial communities and slightly beneficial to annual communities over the long-term at the landscape level. Surface disturbing activities, development of recreation sites and utilities could have slight to moderate short- and long-term localized adverse impacts. IDARNG off-road training would have slight to moderate long-term adverse impacts in the OTA. Overall, there would be a substantial landscape wide net increase (115,000 acres) in shrub communities. Degraded communities would occur primarily in non-shrub portions of the OTA. Under this alternative, continued off-road maneuvers and live firing would preclude BLM from restoring 80,000 acres of degraded non-shrub habitat in the OTA. The objective would be met. All DFC would be met except in the Impact Area and designated off-road Maneuver Areas of the OTA.

Upland Vegetation: Alternative D

Idaho Army National Guard Activities: Impacts in the Bravo Area would be the same as described in Alternative B. Approximately 50% of the training in the Bravo Area would be redistributed to the other areas; however, the expansion area would only be 4,100 acres, thus impacts to grassland communities would be greater in these areas than in Alternative A or B. The benefit of mandatory avoidance of



shrub communities in the remainder of the OTA would be as described in Alternative B. Shrub and perennial grass communities account for approximately 16% of the proposed expansion area. Impacts in the expansion area would be the same as Alternative B, but would only occur on 4,100 acres. The impact of other training activities would be as described in Alternative A. Under this alternative, continued off-road maneuvers and live firing would preclude BLM from restoring 80,000 acres of degraded non-shrub habitat in the OTA.

Lands and Realty Activities: The impacts on upland vegetation from acquisitions and consolidating public ownership would be the same as described in Alternative C. The proposed change in the NCA boundary would result in a net decrease of approximately 2,100 acres of degraded or disturbed habitat that would not be treated which would have no impact. The effects of the proposed avoidance area and use and maintenance of the existing utility corridor would be as described in alternative A.

Livestock Grazing Management Activities: Impacts to upland vegetation resulting from livestock grazing in perennial communities outside the Impact Area would be as described in Alternative B. Limiting livestock grazing in annual grasslands to leave minimum amounts of residual litter would have the same affect as Alternative A.

Recreation Management Activities: Impacts to vegetation from restricting campfires would be the same as described in Alternative B. Impacts associated with the four recreation sites would be the same as Alternatives C. Annual grass and invasive weed communities dominate in the vicinity of the proposed Black Butte Boat Access site. Short-term impacts to vegetation would be slight, but increased recreation use could impede long-term restoration efforts in the vicinity of this site. The potential for reducing impacts to upland vegetation from dispersed recreation would be the same as Alternative C. The additional site, located adjacent to the Snake River, would slightly

benefit uses associated with riparian areas rather than uplands over the long-term at the landscape-level.

Surface Disturbing Activities: The impacts of actions common to all alternatives that limit or eliminate surface disturbing activities would be the same as described in Alternative A. Impact associated with the use of existing mineral material sites and reopening inactive sites would be as described in Alternative A.

Transportation Management Activities: The impacts related to closing 4,400 acres to motorized vehicle use would be the same as Alternative A. Although the closed area would be larger, the impacts would continue to be recognized at the local level. Impacts from application of the route designation criteria would be as described in Alternative A.

Vegetation – Fire Suppression Activities: Impacts would be as described in Alternative A.

Vegetation – Fuels Management Activities: The impacts associated with fuels management would be the same as described in Alternative C; however, the increased level of human use and associated greater probability of human-caused fires would result in a loss of up to 30,000 acres of remnant shrub communities.

Vegetation – Noxious Weeds Management Activities: Impacts would be the same as described in Alternative C.

Vegetation – Research Areas: Although a larger area would be subject to research activities, the impacts would be the same as Alternative B.

Vegetation – Restoration Activities: Impacts to upland vegetation related to restoration would be the same as those described in Alternative C with the exception of the net gain of shrub communities over the long-term. While an estimated 30,000 acres of shrubs may be lost to wildfire, the proposed restoration efforts would result in a net gain of



100,000 acres of shrub cover over the long-term.

Visual Resources Management Activities: Slight long-term beneficial impacts from Class II designations would occur primarily at the local level (approximately 11%). Class III and IV designations would provide slight protection from surface disturbance landscape wide and would not have an impact on vegetation.

**Conclusion – Upland Vegetation:
Alternative D**

cles, restrictions on surface disturbing activities and livestock grazing in Sandberg bluegrass communities, and consolidating land ownership would provide slight to moderate localized benefits over the long-term. Vegetation treatments and research areas could have slight adverse localized impacts in the short-term, but would be highly beneficial over the long-term at the landscape level. Fire suppression priorities could moderately benefit shrub communities at the landscape level and could adversely affect annual communities slightly at the local level. Implementing S&Gs, application of the route designation criteria, and protection afforded by visual resources classifications (Class II) would provide slight to moderate benefits at the landscape level. Surface disturbing activities including development of recreation sites could have slight to moderate localized adverse impacts.

IDARNG off-road training in non-shrub communities would have slight to moderate adverse impacts in the OTA. Continued off-road maneuvers and live firing would preclude BLM from restoring 80,000 acres of degraded non-shrub habitat in the OTA. The objective would be met. All DFC would be met except in the Impact Area and designated off-road Maneuver Areas of the OTA.

4.2.9 Water Quality, Riparian and Wetlands

Summary

Alternative A would provide the least amount of restoration. Alternative B provides an increased level of restoration over Alternative A. Alternatives C and D provide a significant amount of protection and restoration; however, Alternative C provides the greatest protection from utility development and livestock grazing.

Assumptions

- Riparian areas are dynamic systems that undergo natural changes frequently.
- Habitat restoration projects in riparian areas would experience degrees of success or failure. Successful projects would have beneficial impacts to water quality and riparian resources. Failures would have no long-term impact on these resources.
- Varieties of shrubs used for upland habitat restoration projects would not invade riparian areas.
- Short-term impact would be 5 years or less based on the average rate of recovery for riparian areas. Long-term impact would be greater than five years.

How Activities Affect Water Quality, Riparian and Wetlands

Direct Impacts

Livestock Grazing Management Activities

- Riparian areas can be affected by grazing in different ways depending on the season of use. Grazing these areas during the summer would generally have adverse impacts on riparian areas (Baker, *et al.* 2001 p 3). When temperatures are high and there is a lack of shade in the uplands, livestock tend to congregate in riparian areas and utilize riparian forage. This impacts riparian areas adversely in several ways. Surface disturbance and soil compaction is increased where livestock congregate, resulting in bank instability. In addition, riparian vegetation that is utilized by livestock for forage in the summer may not have enough growing days left in



the year for recovery and reproduction. In the late summer and fall, livestock tend to be drawn to riparian areas for shade and forage. During the fall season, riparian areas may offer more palatable forage for livestock than the uplands, which may be depleted.

- Grazing earlier in the growing season (i.e., spring) allows riparian vegetation more time to recover than either summer or fall grazing and can actually improve vegetation growth in riparian areas if carefully monitored. Grazing riparian areas in the spring has been shown to be helpful in establishing woody plants (New Mexico Department of Game and Fish 2004 p 2, Baker, *et al.* 2001 p 4). Winter grazing has the least overall impact to riparian areas (USDI 1997, p 27). However, long-term use of riparian areas in the winter could lead to a decline of palatable native species.
- Degraded riparian systems are less able to withstand the disturbance of grazing than those in PFC. Grazing degraded riparian systems could directly reduce the functioning condition of the riparian area. Further indirect adverse impacts on water quality would result by reducing the ability of the system to withstand a high runoff event without erosion or stream channel alteration.
- Management systems or actions that use grazing to modify vegetation in a prescriptive manner, including those discussed in BLM Technical Reference 1737-14, would have beneficial direct and indirect impacts on riparian and water quality resources over the long-term. Limiting or eliminating livestock use of riparian vegetation would help promote healthy riparian vegetation that directly benefits riparian areas and water quality by stabilizing streambanks and filtering sediment from overland flow before it enters water bodies (Bellow 2003 p3).

Riparian/Wetland Management Activities

- Maintaining riparian and wetland areas that are in PFC would ensure that desir-

able riparian vegetation would occur in a diverse mixture and exhibit appropriate vigor, growth and reproduction relative to the landform, geology, and hydrology of the site. The sites would be relatively stable even during typical flood flows (high flows reached every 5 to 30 years) and would resist the establishment of noxious and invasive species over the short- and long-term.

Surface Disturbing Activities (Lands and Realty, Mineral Materials, Recreation)

- Surface disturbing activities that take place in riparian areas, including activities in utility corridors, would result in various degrees of disturbance. The removal of vegetation would increase the potential for erosion and sedimentation resulting in short and long-term adverse impacts. Avoidance areas would prevent major rights-of-ways and the resulting adverse impacts to riparian areas.
- The short-term direct impacts of surface disturbing activities (i.e. recreation, motorized vehicle use) include crushing and destroying riparian vegetation. Repeated localized impacts can limit the ability of plants to reestablish by reducing their numbers and reproductive capability. Areas where plants are eliminated could become functioning at risk over the short-term. Increased sedimentation from erosion could indirectly impact water quality over the short- and long-term. Invasive and noxious weeds that become established in disturbed areas may spread into adjacent areas resulting in increased competition for resources over the short- and long-term, further impacting riparian communities.
- Riparian areas receive a disproportionately high level of recreational use relative to their occurrence in the NCA. Direct impacts to vegetation from recreation use include trampling and destroying vegetation caused by foot and vehicle use, firewood gathering, and loss of vegetation caused by escaped campfires. Invasive and noxious weeds could become established in



disturbed areas. Functioning condition and water quality could be impacted over the short- and long-term as described above. The direct impacts could be less apparent where hardened use areas have been established. Actions that actively manage or limit use (i.e. creating recreational facilities such as trails or hardened use areas, limiting outfitter permits) would help limit impacts over the short- and long-term.

- In areas where scenic and biological values increase (i.e. riparian areas are in PFC) over time, they become more attractive to recreationists and use levels and associated impacts could increase over the long-term.

Transportation Management Activities

- Motorized vehicles directly impact riparian vegetation in the short-term by crushing and shearing plants. Repeated disturbances would alter species composition by reducing desirable species and allowing undesirable species to become established and increase. Over the long-term, riparian functioning condition could decline.
- Water quality could be adversely impacted as bare ground is exposed and erosion increases sediment input into water sources or shade is decreased resulting in increased water temperatures. Elimination of motorized vehicle use and associated impacts would help areas attain and maintain PFC and water quality over the long-term. Limiting access could also reduce dispersed recreation use and the impacts associated with that use.

Water Quality/Riparian Wetland Restoration Activities

- Re-establishing native trees and shrubs would benefit riparian areas and water quality over the long-term. Replacing exotic species with native species would not necessarily alter or improve the physical functioning condition of riparian areas, but it would improve the biological habitat quality over the long-term. Established woody species would protect stream banks from erosion, provide shade, and improve

water quality (Hoag 1998, p 5). Over the long-term, native species would provide woody debris to the Snake River system as they mature and die.

- Weed species commonly found in the NCA (perennial pepperweed, poison hemlock, whitetop, Russian knapweed, Canada thistle, Syrian beancaper, etc.) generally lack the root masses capable of withstanding high-flow events, resulting in a relatively unstable streambanks or shoreline. As weed species are replaced with deeper-rooted desirable species, functioning condition would be improved over the short- and long-term. Riparian systems benefit indirectly from a diverse composition of hydric species over the long-term because they exhibit increased resiliency to disturbance events such as flooding, grazing, or fire. Diverse species composition is necessary for maintenance and recovery in riparian systems following such disturbance events. Areas treated for noxious weeds would be more resistant to the establishment and spread of noxious weeds as the vigor and productivity of desirable species increases. Eliminating a source of noxious weeds in the TWMA would benefit the TWMA and the Snake River over the short- and long-term. Soil microorganisms would be expected to thrive over the short through long-terms as nutrients are freed into the soil horizon and increased solar energy invigorates plant life.
- Restoration of the TWMA wetlands would have direct beneficial impacts to the functioning condition of the wetland and its associated water quality over the long-term. The introduction of prescribed fire on a cyclical basis could improve the vigor of decadent wetland plant communities over the long-term by eliminating dense mats of dead and dying perennial wetland vegetation. This would improve nutrient cycling and nutrient absorption by wetland obligate plant species and in turn, improve water quality within the wetland (Pappani and Inouye 2003, Tarter, A. 2005 Pers. Comm.). Burning portions of



the TWMA would give desirable species a competitive advantage over the short- and long-term by removing noxious weeds that are not adapted to fire. The short-term loss of structural and functional components could adversely impact water quality. The removal of vegetation would increase the potential for erosion and sedimentation of adjacent ponds and the Snake River. The relatively rapid return of vegetation would help stabilize the soil surface and decrease the potential for erosion and sedimentation over the short- and long-term.

Indirect Impacts

Livestock Grazing Management Activities

- Livestock can be vectors of noxious weeds in riparian areas. The presence of a disturbed soil surface and noxious weed seeds in riparian areas could lead to an increase in noxious weeds. Riparian area PFC could be adversely impacted where livestock create soil disturbance, transport noxious weed seeds into a riparian area, and those seeds germinate.
- Grazing livestock riparian areas could have adverse impacts to riparian area functioning condition and water quality by altering vegetative composition and the subsequent streambank destabilization.
- Adverse impacts to riparian areas could result from grazing practices in the adjacent uplands that do not leave enough residual vegetation for proper watershed function.
- Grazing practices in the uplands that continually reduce standing vegetation and litter can have adverse impacts to the stability of uplands by limiting the quantity of organic matter available for incorporation into the soil. Reductions in upland standing vegetation, litter, and soil organic matter content can increase the potential for non-point impacts to water quality by decreasing the ability of water to infiltrate the soil and encouraging more runoff (National Research Council 1994, p 102).
- Management systems and actions that use grazing to modify vegetation in a prescrip-

tive manner would have beneficial direct and indirect impacts on riparian and water quality resources over the long-term. Limiting or eliminating livestock use of riparian vegetation would help promote healthy riparian vegetation that directly benefits riparian areas and water quality by stabilizing stream banks and filtering sediment from overland flow before it enters water bodies (Bellows 2003 p 3).

- Management actions that improve watershed conditions in adjacent uplands (i.e. implementing Idaho S&Gs, leaving minimum amounts of residual litter in annual grass pastures) could reduce sediment input into riparian and aquatic systems and would benefit water quality over the short- and long-term.

Riparian/Wetland Management Activities

- Improving ‘functioning at risk areas’ in the NCA would primarily involve replacing less desirable plant species or noxious weeds with desirable plant communities. Methods used to eradicate undesirable species could directly impact desirable species in the short-term. Removal of vegetative cover could make stream banks in flowing water (lotic) systems more susceptible to erosion over the short-term. This potential increase in sedimentation also represents an indirect adverse impact to water quality. As desirable species become established in treated areas, stream banks would be stabilized by roots and woody debris over the short- to long-term. Wetland and riparian areas would be more resilient to the establishment of noxious or invasive species over the long-term.
- Any improvement in PFC would be beneficial for the area(s) affected with the scale of those impacts dependent upon how many miles of stream/shoreline were actually improved rather than simply maintained. Maintenance of PFC would represent no change in current conditions resulting in no impact.



Water Quality/Riparian Wetland Restoration Activities

- Removal of unwanted trees and shrubs in riparian areas may have indirect adverse impacts to water quality until planted species become established. Removal of woody species could adversely affect water temperature over the short-term, as shaded areas would be reduced. Streambanks would be more susceptible to erosion as root systems from removed plants decay and sources of woody debris were reduced or eliminated.
- Cyclical burning of the area would reduce the effectiveness of the golden loosestrife beetle release—a biological weed control agent currently present in the TWMA that has had excellent success controlling purple loosestrife. Selectively burning localized patches would reduce impacts to wintering golden loosestrife-beetle larvae and supplemental releases would occur as necessary.
- Water quality could be adversely affected over the short-term during the construction of a pond at TWMA. Sediment input to the Snake River could increase during construction activities and continue over the short-term due to a lack of stabilizing vegetation. Increased instability of the soil surface in the construction area would occur until vegetation became established and the pond began to function. The disturbed area would be susceptible to noxious weeds until desirable plants are established. Water quality would improve over the long-term as emergent vegetation becomes established. An additional pond would increase the ability of the TWMA to process chemical (e.g., nitrogen and phosphorus) and biological (e.g., E. coli bacteria) pollutants and would provide an additional area for sediment retention (Pappani and Inouye 2003).
- The aggressiveness and tenacity of noxious weed species in riparian areas can preclude the establishment of more desirable plant species. Reducing or eliminating weeds in riparian areas would reduce or eliminate competition from undesirable

plants and would increase the ability of the riparian area to support a diverse composition of desirable wetland vegetation.

Discussion of Impacts by Alternative

**Water Quality, Riparian and Wetlands:
Alternative A**

Livestock Grazing Management Activities: Approximately 6.744 miles of river and reservoir frontage in 10 allotments (USDI 2005a), 20 ft. (0.004 miles) in the Bruneau Arm Allotment (USDI 2004a), and up to 4.3 miles in the Con Shea are potentially accessible to livestock grazing in the NCA. Implementation of Idaho S&Gs (Appendix 3) would slightly improve (for segments rated functioning at risk) or maintain (for segments rated proper functioning) the functioning condition of these areas over the short-term and could moderately improve riparian condition over the long-term. The benefits to water quality and riparian habitat would occur at the local level. The remaining river and reservoir frontage would not be directly impacted by livestock. Reduction of sediment input from uplands, either from wind or runoff sources, would have a beneficial impact on water quality over the long-term. Livestock would not have access to approximately 5 miles of riparian habitat associated with the Priest Ranch and Battle Creek Pasture 8B. This would moderately improve or maintain functioning condition and water quality at the local level over the long-term.

Riparian/Wetlands – Management Activities: Improving condition class from functioning at risk to PFC would moderately benefit lentic wetlands at the local level (approximately 5%) over the long-term. The remaining lentic wetlands would be maintained in PFC, which would slightly benefit wetlands at the landscape level over the long-term. Improving 45 acres of lotic wetlands from functioning at risk to PFC and maintaining 45 acres in PFC would moderately benefit lotic wetlands over the short- and long-term at the landscape level. Improvement of wetland conditions in the TWMA would improve water quality at the local level over the long-term; however, improving or maintaining riparian functioning



condition throughout the NCA would have a minimal impact on total pollutant inputs into the Snake River, and, therefore, water quality.

Riparian Habitat Restoration Activities: Restoring riparian habitat (1 mile or approximately 1% of the riparian habitat in the NCA) would slightly benefit water quality and riparian resources at the local level, but would have no appreciable impact at the landscape level over the long-term. Using fire to restore 80 acres of wetlands at the TWMA would have slight short-term adverse impacts to water quality and wetland habitat; however, these impacts would occur at the local level and would be apparent primarily between the treatment and the next growing season. Water quality and habitat conditions, including resistance to noxious weed infestations, would slightly improve at the landscape level over the long-term. Because of the potential reduced effectiveness of the golden loosestrife beetle as a biological control agent, purple loosestrife could be present as a minor component over the long-term. The reduction or eradication of weeds in riparian and wetland areas would have minimal impacts to water quality over the short- and long-term, but would benefit functioning condition at the landscape level over the long-term.

Surface Disturbing Activities: The 43,000-acre avoidance area includes approximately 18 miles of the Snake River along the south side that would be protected from major rights-of-way actions. This would have slight localized benefits for that area over the long-term. There would be no impact to water quality from active mineral material sites. The potential for noxious weeds to spread from mineral material sites to riparian areas is limited and would depend on dispersal mechanisms (i.e., recreation users, livestock) traveling between mineral material sites and riparian areas. Dispersed recreation would have slight short- and long-term impacts to water quality and riparian habitat at the local level. Expanding the Cove Recreation site would increase recreational use in the immediate vicinity and could negligibly increase long-term adverse impacts

to riparian vegetation and to a lesser degree impacts to water quality over the long-term. Expanding facilities at Dedication Point would have no impact on water quality or riparian habitat. The limited development would do little to offset the impacts of dispersed recreation on riparian areas, which would continue to be desirable destinations for recreationists regardless of the level of development.

Transportation Management Activities: Maintaining vehicle closures would slightly benefit water quality and riparian and wetland functioning condition over the short- and long-term at the local level. Benefits would result along 2.4 miles of riparian areas that have roads passing through them (1.8mi at Halverson Bar area, and 0.6mi at the TWMA). Designating routes in the vicinity of riparian areas in the remainder of the NCA would slightly benefit water and functioning condition primarily at the local level over the long-term. Approximately 14 miles of riparian areas are accessible by or adjacent to (within 165 feet) roads.

Conclusion – Water Quality, Riparian and Wetlands: Alternative A

Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds (closures and restrictions to livestock grazing or limitations on off road vehicle use, etc.) would have slight to moderate long-term beneficial impacts at the local level. Existing recreation facilities would not meet the increasing demand for river-based recreation, which would result in slight to moderate long-term adverse impacts to riparian areas. Restoring one mile of riparian habitat and 80 acres of wetlands in the TWMA would result in slight long-term benefits at the local level; however, in the long-term, riparian areas would be moderately adversely impacted by weed infestations at the landscape level. In addition, maintaining or improving PFC along all 101 stream and shoreline miles would have a slight long-term benefit impact at the landscape level. The objective would be met; however, the DFC would not be met as a result of limited restoration of riparian habitat.



**Water Quality, Riparian and Wetlands:
Alternative B**

Livestock Grazing Management Activities:

The impacts of livestock grazing on water quality and riparian habitat would be as described in Alternative A. Impacts resulting from closures to livestock grazing would be as described in Alternative A; however, an additional 0.25 miles of riparian habitat in the Melba Seeding Allotment (river pasture) could slightly benefit from the elimination or seasonal restriction of grazing over the long-term.

Riparian/Wetlands – Management Activities:

The impacts of improving or maintaining functioning condition of lotic and lentic wetlands would be as described in Alternative A. Restoring 20 miles of riparian habitat (approximately 20% of the riparian habitat in the NCA) would have minimal short-term adverse and long-term beneficial impacts to water quality at the local level. Riparian habitat conditions play a relatively small role in regulating water quality in the NCA. Although occurring over the same area as water quality improvements, restoration would have more substantial beneficial impacts to riparian habitat conditions, especially small streams, over the long-term. The impacts to water quality and wetland functioning condition of restoring wetlands in the TWMA would be as described in alternative A. The impacts on water quality associated with the construction and operation of a 20-acre pond in the TWMA would be slight at the local level over the short- and long-term. Because the pond would be managed for shorebird habitat, there would be a small (probably <5 acres) increase in wetland vegetation and limited improvement in water quality over the long-term. The impacts of reducing or eradicating weeds in riparian and wetland areas would be as described in alternative A.

Special Designations – Wild & Scenic Rivers:

A recommendation as suitable for a recreational classification under the W&SR Act would provide for 21.5 miles of the Snake River at least until Congress acts on the recommendation. Water quality and riparian con-

ditions would be maintained over the long-term, as least as they could be affected by an impoundment. The potential impacts to water quality and riparian conditions in the remaining 27.5 miles would be as described in Alternative A.

Surface Disturbing Activities: The 105,000-acre avoidance area includes 31 miles of the Snake River that would be protected from major rights-of-way actions. This would have slight long-term landscape-wide benefits for riparian and wetland areas. Impacts from mineral activities would be the same as Alternative A. The impacts of, facilities development, and commercial use permit restrictions on water quality and riparian areas would be as described in alternative A. Development of the Initial Point site would have no impact on riparian areas. Development of the Three Pole site could slightly increase recreational use and associated impacts to water quality and riparian habitat in the vicinity of the Swan Falls dam. The impacts would occur over the long-term and would be at the local level.

Transportation Management Activities: Maintaining vehicle closures and designating routes would benefit water quality and riparian and wetland functioning condition as described in Alternative A; however, additional closures would benefit approximately 6 miles on both sides of the Snake River in the Halverson Bar area and up to 3.4 miles of riparian habitat on the south side of the Bruneau Arm. These benefits would occur over the long-term at the local level.

Conclusion – Water Quality, Riparian and Wetlands – Alternative B

Construction of an additional pond at TWMA would moderately improve water quality at the local level over the long-term. Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds (closures and restrictions to livestock grazing or limitations on off road vehicle use, etc.) would have slight to moderate long-term beneficial im-



pacts at the landscape level. Additional recreational facilities would not meet the increasing demand for river-based recreation, which would result in slight to moderate long-term adverse impacts to riparian areas. Weed treatments and restoring 20 miles of riparian habitat and 80 acres of wetlands in the TWMA would result in slight to moderate long-term benefits at the local level. In addition, maintaining or improving PFC along all 101 stream and shoreline miles would have slight long-term benefits at the landscape level. Overall this alternative would maintain and slightly improve riparian areas. The objective and DFC would be met.

**Water Quality, Riparian and Wetlands:
Alternative C**

Lands and Realty Activities: The benefits of consolidating ownership would be as described in Alternative A.

Livestock Grazing Management Activities: Elimination of grazing in riparian areas would have moderate short- and long-term benefits to water quality and riparian functioning condition in approximately 11 miles of river and reservoir frontage (those that are accessible to grazing in Alternative A). Improvements in watershed conditions throughout the NCA would reduce erosion and moderately benefit water quality at the landscape level over the long-term.

Riparian/Wetlands Management Activities: The impacts of improving or maintaining functioning condition of lotic and lentic wetlands would be as described in Alternative A. Restoring 40 miles of riparian habitat (approximately 40% of the riparian habitat in the NCA) would have the same impacts to water quality as described in Alternative B. The impacts to water quality and wetland functioning condition of restoring wetlands in the TWMA would be as described in Alternative A. The impacts of constructing a 20-acre pond in the TWMA would be as described in Alternative B. The impacts of reducing or eradicating weeds in riparian and wetland areas would be as described in Alternative A.

Surface Disturbing Activities: The 163,600-acre avoidance area includes 101 miles of the Snake River that would be protected from major rights-of-way actions. This would have slight long-term landscape-wide benefits for riparian and wetland areas. Impacts from mineral activities would be the same as Alternative A. Impacts of campfire restrictions, facilities development, and commercial use permit restrictions on water quality and riparian areas would be as described in alternatives A and B. Development of the Celebration Park Annex would have slight short- and long-term impacts to riparian vegetation and water quality in the immediate vicinity of the site with the potential for slightly increased dispersed use associated impacts in the area. Development of the Guffey Butte site could slightly increase impacts to riparian habitat and water quality from dispersed use in the vicinity of the site.

Transportation Management Activities: Maintaining vehicle closures and designating routes would be as described in Alternatives A and B; however, this alternative would benefit an additional 12.8 miles of riparian areas on the north side of the Snake River between Grand View and Sinker Butte. These benefits would occur at the landscape level in the short- and long-term.

Special Designations - Wild & Scenic Rivers: A recommendation as suitable for a recreational classification under the W&SR Act would provide protection for 49 miles of the Snake River, at least until Congress acts on the recommendation. Water quality and riparian conditions would be maintained over the long-term. Overall riparian use would be protected from uses that would alter the values for which there would be recommended through greater management emphasis.

Conclusion – Water Quality, Riparian and Wetlands: Alternative C

Construction of an additional pond at TWMA would moderately improve water quality at the local level over the long-term. Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds (elimina-



tion of livestock grazing or limitations on off road vehicle use, etc.) would be moderately to highly beneficial over the long-term at the landscape level. Of the four recreation facilities, only Celebration Park and Guffey Butte would provide additional water-based opportunities, but they would not meet the increasing demand for river-based recreation. The result of limited water-based recreation facilities would result in slight long-term adverse impacts to riparian areas. Weed treatments and restoring 40 miles of riparian habitat and 80 acres of wetlands in the TWMA would result in moderate to high long-term benefits at the landscape level. In addition, maintaining or improving PFC along all 101 stream and shoreline miles would have a slight long-term benefit at the landscape level. Overall this alternative would maintain and improve riparian areas. The objective and DFC would be met.

Water Quality, Riparian and Wetlands: Alternative D

Lands and Realty Activities: The impacts to water quality and riparian habitat from Avoidance areas would be the same as Alternative A.

Livestock Grazing Management Activities: The impacts of livestock grazing and grazing closures would be as described in Alternative A.

Riparian/Wetlands Management Activities: The impacts of improving or maintaining functioning condition of lotic and lentic wetlands would be as described in Alternative A. The impacts of restoration would be as described in Alternative C. The impacts to water quality and wetland functioning condition of restoring wetlands in the TWMA would be as described in Alternative A. The impacts of constructing a 20-acre pond in the TWMA would be as described in Alternative B. The impacts of reducing or eradicating weeds would be as described in Alternative A.

Surface Disturbing Activities: The impacts of surface disturbances related to material extrac-

tion from mineral material sites and recreational uses would be as described in Alternative A. The impacts of recreation facilities development and commercial use permit restrictions would be as described in Alternative C. Development and use of the Black Butte Boat Access would have slight short- and long-term adverse impacts in the immediate vicinity of the site with the potential for slight to moderate adverse impacts from increased dispersed use in the surrounding area.

Transportation Management Activities: Maintaining vehicle closures and designating routes would be as described in Alternative B, except that approximately 1 mile of the Snake River near Guffey Butte area would remain open. These benefits would occur at the landscape level over the long-term.

Special Designations - Wild & Scenic Rivers: The impact by protecting, but not recommending as eligible, 49 miles of the Snake River would be as described in Alternative A.

Conclusion – Water Quality, Riparian and Wetlands – Alternative D

Construction of an additional pond at TWMA would moderately improve water quality at the local level over the long-term. Actions that limit surface disturbance or reduce the establishment or spread of noxious weeds would have moderate long-term beneficial impacts at the landscape level. Recreation facility development would not meet the increasing demand for river-based recreation and would result in slight to moderate short- and long-term adverse localized impacts. Weed treatments and restoring 40 miles of riparian habitat and 80 acres of wetlands in the TWMA would result in moderate to high long-term benefits at the landscape level. In addition, maintaining or improving PFC along all 101 stream and shoreline miles would have a slight long-term benefit at the landscape level. Overall this alternative would maintain and improve riparian areas. The objective and DFC would be met.



4.2.10 Visual Resources

Summary

The objectives would be met under each of the alternatives. Vegetation treatments and recreation developments generally result in long-term benefits at the cost of short-term adverse impacts to visual quality. The area affected by these activities is the least in Alternative A and the greatest in Alternatives C and D. Alternative A provides the highest protection of visual resources with a VRM I Class. Alternative C provides the greatest level of protection by recommending 49 miles of W&SR designation and the greatest amount of VRM Class II designations.

Assumptions

- Short-term impacts would be those that are not visible within a 10-year period (the anticipated time it would take to restore an area within the NCA (See section 3.3.10). Long-term impacts would be those that remain visible beyond the normal restoration period.

How Activities Affect Visual Resources

Direct Impacts

Idaho Army National Guard Activities

- Military training would have short- and long-term adverse impacts to visual resources. Military vehicles, equipment, and facilities would create a contrast with the surrounding landscape over the long-term. Communication centers, vehicle maintenance and refueling stations, low flying aircraft, large-scale food preparation sites, and other logistical activities are examples of the kinds of direct short-term impacts to visual resources that would be expected.

Livestock Grazing Management Activities

- Livestock grazing can have adverse impacts to visual resources depending on utilization levels and rangeland improvement projects. Direct adverse impacts result when different levels of utilization in adjacent pastures create a visible contrast of vegetation on the landscape. Where the two pastures meet, a noticeable contrast in

utilization levels can be visible depending on how utilization differs between the two areas. A high concentration of livestock can have direct adverse impacts to visual resources by creating increased surface disturbance in a site-specific area. Feeding and watering areas for example, often display a relatively higher amount of surface disturbance than the surrounding landscape resulting in a noticeable contrast to the casual observer. These areas may be denuded of vegetation over the short-term and invaded by weeds over the long-term.

Recreation Management Activities

- The primary adverse impacts are increased localized surface disturbance associated with the construction of new facilities. Adverse impacts to localized areas would increase somewhat by concentrating use in the area of development. Properly developed use “hardens” part of the area to contain the impacts from surface disturbance with the goal of protecting the surrounding area. Short-term impacts can result from surface disturbance during construction and the associated restoration of the areas adjacent to the newly developed facilities. Long-term impacts result from the increased use of the area.

Surface Disturbing Activities (Lands and Realty – Rights-of-Way and Utility Corridors)

- Rights-of-way have adverse impacts to visual resources by creating surface disturbance and structures on the landscape. Projects such as communication sites, electric transmission lines, oil and gas pipelines, roads, and wind energy developments are all examples of the adverse impacts to visual impacts that Recreation Opportunity Spectrum (ROS) might include.

Transportation Management Activities

- Visual resources can be adversely impacted by motorized vehicle recreation that creates new trails and disturbs vegetation communities. Until a road designation is completed and the routes posted, ad-



verse impacts to visual resources would continue.

Vegetation – Fuels Management Activities

- Hazardous fuels reduction through prescribed fire, chemical, biological, and mechanical treatments could have beneficial and adverse impacts to the appearance of the landscape. Hazardous fuels treatments generally require reductions in surface vegetation, resulting in surface disturbance and possible contrasts with the surrounding landscape along treatment boundaries. Direct adverse impacts would result from the surface disturbance associated with the treatment by altering the line, color, and texture of the landscape. Treatments involving the use of prescribed fire for example, would result in a blackened landscape for one to three growing seasons and could result in additional adverse impacts from smoke in the atmosphere.

Vegetation – Restoration Activities

- Impacts from wildlife and SSS habitat restoration projects would have impacts to the appearance of the landscape. Direct adverse impacts would result over the short-term as a result of surface disturbing activities associated with restoration. Seedbed preparation and seeding techniques that disturb the soil surface would create a noticeable contrast to the surrounding vegetation for the casual observer until the restored vegetation became established. The effects of restoration could have adverse impacts over the long-term after vegetation becomes established due to vegetation growing in noticeable patterns, like furrows. These impacts could be minimized with techniques that result in a more random distribution of seeded plants. When restoration projects require fencing, adverse impacts would result and persist until the fence is removed.

Mineral Material Activities

- Long and short-term adverse impacts result from the surface disturbance associated with mineral extraction on public lands. The form, color, and texture of the surface are altered over the long-term where minerals are extracted. Short-term impacts include dust associated with hauling. Expansion of existing sites would contribute marginally to sites that are already disturbed.

Indirect Impacts

Idaho Army National Guard Activities

- Adverse impacts to visual quality would result from surface disturbing activities such as motorized vehicle use and troop movements. Multiple tracked vehicles moving in teams across grassland areas and dirt roads would kick up dust during the dry season resulting in reduced visibility over the short-term.

Livestock Grazing Management Activities

- Indirect adverse impacts to the appearance of the landscape can result from rangeland improvement projects that are used to manage livestock over the long-term. The appearance of the landscape can be adversely impacted by the presence of fences, reservoirs, spring developments, water tanks, cattle guards, and other man made structures that are sometimes necessary to manage livestock.

Special Designations

- SRMAs are administrative designations. They benefit visual resources by recognizing the need for a higher level of managerial presence due to specific resource values and expected increases in demand for recreation on public lands.
- Recreation developments that attract users to an area would have beneficial impacts on a landscape level with the cost of adverse impacts to localized areas. Over the long-term, impacts on a landscape level would be beneficial by dispersing surface disturbing activities associated with rec-



reation. Facilities would reduce visual impacts associated with waste disposal, soil surface damage, and damage of sensitive vegetation communities because these facilities present a public interface area where trail designations and resource values can be communicated, parking can be localized, with toilets and trash bins provided.

- Designation of stretches of the Snake River under the WSR Act would have beneficial impacts to visual resources over the short and long-term. The designation would protect the free-flowing condition and unique wildlife values associated with the Snake River, resulting in indirect beneficial impacts over the long-term. Preservation of the recreational qualities associated with the Snake River Canyon would maintain the appearance of the Canyon by limiting future construction projects, such as impoundment structures.

Surface Disturbing Activities (Lands and Realty – Rights-of-Way and Utility Corridors)

- Avoidance areas benefit visual resources indirectly by limiting future ROW projects within their boundaries.

Vegetation – Fire Suppression Activities

- Fire has adverse impacts to visual resources in the NCA by creating noticeable contrasts in vegetation across the landscape. As a result of fires, burned areas are blackened over the short-term, and often become dominated by cheatgrass and other invasive weeds over the long-term (USDI 2000a, p 43). Fire would also cause short-term adverse impacts to visibility due to smoke in the atmosphere.

Vegetation – Fire Suppression Activities

- Fire suppression that uses aggressive surface disturbing actions can have short- and long-term adverse impacts by creating patterns that are not natural in the landscape. The area does not recover easily and is frequently invaded by invasive species

that prevent native vegetation from returning.

Vegetation – Fuels Management Activities

- Indirect benefits from hazardous fuel treatments would result over the long-term by preventing hazardous fuel accumulations and reducing the probability of large fires that blacken the landscape. Where fuel treatments convert annual grasslands to perennial vegetation, a mosaic would be created on the landscape and may be more visually pleasing than a homogenous stand of annual grass.
- Campfires could have indirect adverse impacts on the landscape if the fire were to escape into the surrounding area.

Vegetation – Restoration Activities

- Impacts are generally beneficial over the long-term, with the degree dependent on the success of the restoration project (i.e., the establishment of desired vegetation). Visual quality could be directly enhanced where restoration projects mimic a more natural mosaic of vegetation across the landscape. Visual resources could benefit indirectly over the long-term where successful restoration projects attract wildlife, enhancing the quality of the visual experience.

Discussion of Impacts by Alternative

Visual Resources: Alternative A

Idaho Army National Guard Activities: The area is designated as VRM Class IV and allows for greater modification of the landscape than any of the other VRM classes therefore there would be no impacts.

Lands and Realty Activities: All major utility transportation systems would be located within the existing utility corridor. This corridor would have a negligible adverse long-term localized impact due to the relatively small area of the NCA from which it would be visible. The corridor would be visible from a VRM Class III area. Surface disturbing activities would be limited within the 43,000-acre



(9% of the NCA) avoidance area, resulting in slight localized benefits to visual resources over the long-term.

Livestock Grazing Management Activities: Livestock grazing restrictions on the Priest Ranch and in Battle Creek Pasture 8B along C.J. Strike Reservoir would continue to have slight beneficial localized impacts to visual resources over the long-term. There would be no surface disturbance or rangeland improvement projects associated with livestock grazing in the Priest Ranch and Battle Creek 8B pastures. These benefits would generally be negligible, since they would occur on 3,900 acres (>1% of the NCA). Slight long-term adverse impacts associated with grazing and rangeland improvement projects would continue where livestock grazing and rangeland improvement projects occur.

Recreation Management Activities: Three existing recreation facilities would be maintained and expanded to meet demand. Localized adverse impacts to visual resources would depend upon the degree of expansion and the ability of the expanded areas to blend in with the existing landscape. Recreational facilities would exist in VRM Classes I, II, and III. Sixteen hundred acres (>1% of the NCA) would be closed to motorized vehicle recreation. The long-term beneficial impacts from the motorized vehicle restrictions would be negligible due to the small number of acres affected. The area closed to motorized vehicle recreation would coincide with a VRM Class I area in the Snake River Canyon. There would be no recommendation to designate any stretch of the Snake River under the W&SR Act. The free-flowing condition and unique wildlife values associated with 49 miles of the Snake River would be protected, resulting in no impact to visual resources over the long-term. VRM Class I & II would afford some level of protection for the Snake River Canyon.

Vegetation – Fire Suppression Activities: Further loss of existing native shrub habitat would be limited to no more than 50,000 acres (10% of the NCA). Slight adverse impacts to visual

resources from the loss of native shrub habitat from fire would result over the short and long-term. Impacts to visual resources due to the loss of existing shrub habitat from fire would be slight due to the relatively small number of acres affected.

Vegetation – Fuels Management Activities: Fuels treatments on 10,000 acres (2% of the NCA) would have slight localized adverse impacts over the short-term and moderate to high localized benefits over the long-term. All impacts to visual resources would be marginal due to the relatively small number of acres affected.

Vegetation – Restoration Activities: Restoration activities would impact visual resources on 10,000 acres (2% of the NCA) of small mammal habitat. Slight adverse impacts would result over the short-term where restoration activities disturb the soil surface. Slight long-term adverse impacts may result where restored vegetation grows in a noticeable pattern. Slight to moderate beneficial impacts would result over the long-term depending on the success of the project. The scale of these impacts would be marginal because of the relatively small number of acres designated for restoration.

**Conclusion – Visual Resources:
Alternative A**

Application of the route designation criteria would provide slight to moderate benefits at the local level over the long-term. Impacts from restoration activities would be slightly adverse in the short-term but would result in moderately beneficial impacts over the long-term at the local level. Slight, long-term adverse impacts from IDARNG activities would occur at the local level. Scenic values in the majority of the Snake River Canyon would be maintained over the long-term. Development of mineral material sites would have slight to moderate adverse impacts at the local level. The VRM objective would be met. No DFC identified.



Visual Resources: Alternative B

Idaho Army National Guard Activities: Impacts would be the same as described in Alternative A.

Lands and Realty Activities: The proposed utility corridor would have a highly adverse landscape-wide impact over the long-term by passing through an area of increased sensitivity due to the presence of State Highway 78 (Lands Map 2). Suspended electrical transmission lines, support structures, and above ground facilities (i.e., substations) would be clearly visible to the casual observer in these areas. The utility corridor would pass through a VRM Class III area. An avoidance area of 105,000 acres (21% of the NCA) would extend along parts of the Snake River Canyon and its rim to protect the scenic values of the canyon. This would result in high localized benefits to visual resources over the long-term by limiting future rights-of-way projects. The avoidance area occurs within a VRM Class III area.

Livestock Grazing Management Activities: Impacts to visual resources would be the same as those described under Alternative A, except they would occur over a greater area (8,600 acres; <2% of the NCA). Impacts to visual resources would be negligible.

Recreation Management Activities: In addition to the three existing recreational facilities, two additional facilities would be developed. Long-term adverse impacts to localized areas as a result of the construction would be slight relative to the entire area of the NCA. Impacts would be minimized, as structures would account for the surrounding color, form, line, and texture of their respective viewsheds. Slight long-term benefits on a landscape scale would result from the construction of the additional facilities. The new facilities would yield slight long-term benefits near population centers and could slightly reduce adverse impacts associated with motorized vehicle use in the north and western portions of the NCA over the long-term. Approximately 6,400 acres (<2% of the NCA) would be closed to motor-

ized vehicle use, resulting in a reduction in potential adverse impacts to visual resources from surface disturbing activities. The long-term impact would be negligible and localized due to the small amount of area affected. Four SRMAs would include 56,500 acres. Although this would be fewer SRMA acres than proposed under Alternative A, there would be a slight localized benefit to visual resources due to a shift in the management emphasis of SRMA acres. Management would emphasize recreational, scenic, and cultural values where current and projected demand warrants. There would be a recommendation to designate 21.5 miles of the Snake River for recreational classification under the W&SR Act. The free-flowing condition and unique wildlife values associated with that stretch of the Snake River would be protected, resulting in slight to moderate localized benefits to visual resources over the long-term.

Vegetation – Fire Suppression Activities: The impacts from fire and fire suppression would be the same as in Alternative A, except a smaller area would be affected. Further loss of existing native shrub habitat would be limited to no more than 30,000 acres (6% of the NCA).

Vegetation – Fuels Management Activities: Hazardous fuels treatments would have the same impacts as described under Alternative A, except a greater area would be affected. Under this alternative 70,000 acres (14% of the NCA) would be treated for hazardous fuels. Impacts to visual resources would be slight short-term localized due to the small number of acres affected. Campfires would be less likely to escape and become large fires that blacken the landscape. The scale of these impacts would be localized.

Vegetation – Restoration Activities: Impacts would be the same as described under Alternative A, except would occur over a greater area. Restoration activities would result in slight short-term localized adverse on 50,000 acres (10% of the NCA).



**Conclusion – Visual Resources:
Alternative B**

Construction of two new recreation facilities, closures to motorized vehicles, application of the route designation criteria, and the designation of four SRMAs would provide slight to moderate local benefits over the long-term. Vegetation treatments would result in slight adverse impacts at the local level in the short-term and slight benefits at the landscape level over the long-term. Expanding the avoidance area would be slightly beneficial at the landscape level. Military training would be consistent with a VRM Class IV area. The W&SR recommendation would slightly to moderately benefit visual resources along 22 miles of the River. Slight long-term protection along the Oregon Trail and the Canyon would be provided by the SRMA designations. Use of active mineral material sites would have slight long-term adverse impacts at the local level. The VRM objective would be met. No DFC identified.

Visual Resources: Alternative C

Idaho Army National Guard Activities: The VRM Class III areas support the greatest shrub cover. There would be no cross country maneuver training in these areas; therefore, there would be no additional impacts in these areas. Overall impacts would be the same as described in Alternative A.

Lands and Realty – Rights-of-Way Activities: An avoidance area of 163,000 acres (32% of the NCA) would extend along the Snake River Canyon and its rim to protect the scenic values of the canyon. This would result in moderate benefits to visual resources over the long-term by limiting future rights-of-way projects. The avoidance area occurs within VRM Classes II and III.

Livestock Grazing Management Activities: Removing livestock from the NCA would result in a greater rate of recovery of native vegetation and would result in a slightly improved visual quality. In areas around range improvements, the removal of projects and revegetation of denuded areas would further re-

sult in long-term localized improved visual quality.

Recreation Management Activities: Existing recreation facilities would be maintained and developed and there would be construction of four additional recreational facilities to meet user demand. The impacts associated with the additional recreational facilities would be the same as those identified in Alternative B, except more area would be affected due to the construction of additional facilities. Additional recreational facilities would be constructed in VRM Class III areas. Restricting campfires to established campsites or metal fire pans would have the same impacts as described under Alternative B.

Transportation Management Activities: Adverse impacts to visual resources associated with surface disturbance from motorized vehicle use would be eliminated on 13,200 acres (<3% of the NCA). Long-term localized impacts as a result of this restriction would be slight due to the area affected. Motorized vehicle restrictions would occur in VRM Class II areas. Approximately 50,000 acres (10% of the NCA) would be included within three SRMAs. Visual resources in these areas would benefit slightly over the long-term. The Owyhee Front SRMA would be eliminated resulting in slight localized adverse impacts over the long-term. Impacts associated with the designation of the Snake River under the W&SR Act would be the same as those discussed under Alternative B, except more of the river would be affected. Under this alternative, 49 miles of the River would be recommended for designation. The designations would coincide with VRM Class III areas.

Vegetation – Fire Suppression Activities: Impacts to visual resources due to a loss of native shrub habitat from fire would be the same as those described under Alternative A, except a smaller area would be affected. Further loss of existing native shrub habitat would be limited to no more than 15,000 acres (3% of the NCA). Long-term localized impacts to visual resources due to the loss of existing shrub



habitat from fire would be slight due to the relatively small number of acres affected (limited to no more than 15,000 acres – 3% of the NCA).

Vegetation – Fuels Management Activities: Hazardous fuels treatments would have the same impacts as described under Alternative A, except a greater area would be affected. Localized long-term impacts would be moderate due to the number of acres treated for hazardous fuels (100,000 acres – 20% of the NCA).

Vegetation – Restoration Activities: Impacts would be similar to those described under Alternative A, except would occur over 130,000 acres (26% of the NCA). The long-term landscape-wide impacts would be high because of the relatively high number of acres designated for restoration.

**Conclusion – Visual Resources:
Alternative C**

Construction of four new recreation facilities, closures to motorized vehicles, application of the route designation criteria, and the designation of four SRMAs would provide slight to moderate local benefits over the long-term. Vegetation treatments would result in moderate adverse impacts at the local level in the short-term and moderate benefits at the landscape level over the long-term. Expanding the avoidance area would be moderately beneficial at the landscape level over the long-term. Military training would be consistent with the VRM classifications. The W&SR recommendation would slightly to moderately benefit visual resources over the long-term along 49 miles of the Snake River. Elimination of livestock grazing would result in a slight long-term localized benefit in VRM Class II areas from the removal of range projects. The VRM II classification and SRMA designations along the Oregon Trail and in the Snake River Canyon would provide moderate long-term landscape-wide protection for the scenic values. Use of active mineral material sites would have slight long-term adverse impacts at the local level. The VRM objective would be met. No DFC identified.

Visual Resources: Alternative D

Idaho Army National Guard Activities: Impacts would be the same as those described under Alternative A.

Lands and Realty Activities: The proposed utility corridor would have moderate localized adverse impacts over the long-term. Suspended electrical transmission lines, support structures, and above ground facilities (i.e., substations) would be clearly visible to the casual observer. Impacts would be less adverse than those described under Alternative B because the corridor would not be located near an area of high sensitivity (i.e., State Highway 78). The corridor would pass through a VRM Class III area and would be visible from portions of VRM Class II designated areas near Swan Falls Road. Impacts from the avoidance area would be the same as described in Alternative A.

Livestock Grazing Management Activities: Impacts would be the same as described in Alternative A, except they would occur over a greater area. An additional 3,400 acres around Kuna Butte would be restricted. The total area where grazing would be eliminated, or restricted would total 7,300 acres (1% of the NCA). Beneficial long-term localized impacts as a result of grazing restrictions would be negligible.

Recreation Management Activities: Impacts associated with the construction of new recreation facilities would be the same as described in Alternate B, except would occur over a greater area. Five additional recreational facilities would be constructed. Restricting campfires to established campsites or metal fire pans would have the same impacts as described under Alternative B.

Transportation Management Activities: Impacts associated with Motorized vehicle restrictions would be the same as those described under Alternative B, except they would occur over a smaller area. Approximately 4,400 acres (>1% of the NCA) would be closed to motorized vehicle recreation.



Special Designations: Impacts would be the same as described under Alternative C.

Vegetation – Fire Suppression Activities: Impacts would be the same as those described under Alternative B.

Vegetation – Fuels Management Activities: Impacts would be the same as those described under Alternative C.

Vegetation – Restoration Activities: Impacts would be the same as described under Alternative C.

**Conclusion – Visual Resources:
Alternative D**

Construction of five new recreation facilities, closures to motorized vehicles, application of the route designation criteria, and the designation of four SRMAs would provide slight to moderate local benefits over the long-term. Vegetation treatments would result in moderate adverse impacts at the local level in the short-term and moderate benefits at the landscape-level over the long-term. Maintaining the existing avoidance area would be slightly beneficial at the local level over the long-term. Military training would be consistent with the VRM classifications. The VRM II classification and SRMA designations along the Oregon Trail and in the Snake River Canyon would provide moderate long-term landscape-wide protection for the scenic values. Development of mineral material sites would have slight to moderate long-term adverse impacts at the local level. The VRM objective would be met. No DFC identified.

4.2.11 Wild Horses and Burros

Because only 3,400 acres of the Black Mountain HMA are within the NCA boundary, the program would be managed in conformance with the Owyhee RMP and impacts would be as discussed in that document (USDI 1999b).

4.2.12 Idaho Army National Guard

Summary

Each alternative would meet the objective and DFC for the IDARNG. Alternative A provides flexibility with the fewest restrictions. Alternatives B, C and D would impose mandatory restrictions on off-road maneuver training, which would reduce IDARNG training flexibility. Alternative C would have the greatest adverse impact to the IDARNG by significantly reducing the amount of area available for maneuver training. However, the restrictions on off-road maneuvers in the Bravo Area would be offset in Alternatives B and D by providing expanded maneuver training opportunities outside the current OTA boundary. The expansion area identified under Alternative B would provide greater training opportunities, but would result in greater travel distances, higher costs, and potential loss of training days than identified in Alternative D.

Assumptions

- For analysis purposes, one (1) Training Day (TD) is an 8-hour period.
- Training activities excluded from specific areas of the OTA could be distributed to remaining available OTA areas.
- Distributing training activities from one area of the OTA to one or more other areas in the OTA could entail longer travel distances, which would increase IDARNG transportation costs and decrease available training time.
- BLM would conduct Emergency Stabilization and Rehabilitation (ESR) efforts in the OTA, but would not conduct habitat restoration projects because areas affected by habitat restoration would be protected from subsequent military training activities over the long-term. This continuing reduction in military training areas would eventually make it impossible for IDARNG to meet training requirements.
- IDARNG would conduct rehabilitation efforts in the OTA only in areas that would not be repeatedly disturbed by military training.



- Short-term impacts would be less than 5 years based on the IDARNG budgeting cycle.

How Activities Affect Idaho Army National Guard

Direct Impacts

IDARNG Training Area and/or Training Opportunities

- Restricting military vehicles to designated routes in Maneuver Areas would eliminate off-road maneuvers in the affected area(s), but would not affect dismount (foot) training.
- Actions that limit the availability or location of bivouac sites (i.e., off-road vehicle restrictions, avoidance of shrubs) could adversely affect training flexibility and capability.
- Assigning training to other areas of the OTA could entail longer travel, which would result in higher fuel costs, more vehicle maintenance, and more hours spent in transit, all of which would reduce available training time, and reduce the number of TDs that could be accommodated in the short- and long-term.
- Concentrating training on fewer acres could cause scheduling conflicts that would make it difficult to absorb the additional training load in either the short- or long-term resulting in reduced overall training capability.
- Areas outside the current OTA boundary that are proposed for expanded maneuver training would offset proposed restrictions on off-road maneuver training, as well as restrictions imposed to protect SSS and cultural resources.
- Areas closed to military training due to the presence of sensitive resources (i.e. SSP, cultural resources) would reduce the long-term net acres available for training.

Livestock Grazing Management Activities

- Watering troughs and livestock concentrations in military training areas would have a slight short-term adverse affect on military activities in the immediate area. Be-

cause the military would have to train around them.

- Scheduling conflicts between livestock grazing in the Impact Area and IDARNG training needs occur primarily during April. The withdrawal of the Impact Area to the Department of Defense would provide the IDARNG with flexibility to manage military training and livestock grazing activities in the Impact Area in a manner that best meets IDARNG training requirements.

Recreation – Shooting Area Restrictions

- Eliminating the recreational shooting of rifles and pistols would reduce a potential safety hazard, resulting in a safer training environment over the short- and long-term.

Vegetation – ESR Projects

- BLM would conduct ESR projects in response to wildfire-related impacts to remnant shrub communities. Treated areas would be fenced to exclude a variety of activities including military training until the treatments were determined to be successful. This would reduce the net acres available for maneuver training in the short-term.

Vegetation – Fire Suppression Activities

- When fires occur, live fire training activities cease until the fire is extinguished, which reduces available training time in the short-term.
- Maintenance of perennial communities through fire prevention and suppression ensures quality training opportunities over the short- and long-term.

Vegetation – Noxious Weeds Management Activities

- Any actions taken to reduce noxious weeds, ranging from vehicle washing to treating infested sites, would result in short-term adverse impacts by reducing available training time and increasing costs associated with the various treat-



ments. However, these measures would result in beneficial long-term impacts by reducing the overall establishment of noxious weeds in the OTA, which would result in fewer resources being expended (time, money, manpower, etc.) to combat weed populations that would likely establish in the absence of these measures.

Discussion of Impacts by Alternatives

Idaho Army National Guard: Alternative A

IDARNG Training Area and/or Training Opportunities: There would be no change in training activities or locations. Because training is voluntarily restricted from shrub areas, this policy could be changed to meet future IDARNG training requirements. There would be benefits to training capability and flexibility at the landscape level; however, as additional special resource sites are identified there could be slight to moderate adverse localized impacts. The amount of area designated for excavation training (5 acres) would not meet the IDARNG training requirements resulting in moderate short- and long-term adverse impacts.

Lands and Realty Activities: Withdrawal of the OTA Impact Area would have moderate local benefits in the short- and long-term by increasing management flexibility for the IDARNG.

Livestock Grazing Activities: Livestock grazing in the OTA could have a slight short-term adverse localized impact. Transferring grazing administration in the OTA Impact Area would have moderate localized long-term beneficial impacts by providing increased flexibility in managing grazing.

Recreation Management Activities: Recreational shooting would have moderate long-term adverse impacts at the local level. Dispersed recreation would have a slight localized adverse impact to IDARNG training activities in the long-term as a result of the need to monitor recreational users in the area to ensure safety.

Vegetation – Noxious Weeds Management Activities: The control of noxious weeds would be moderately to highly beneficial at the landscape level over the long-term.

Conclusion – Idaho Army National Guard: Alternative A

There would be slight short- and long-term adverse impacts to IDARNG training activities from livestock grazing, dispersed recreation, and inadequate excavation training opportunities. There would be moderate beneficial impacts from the Impact Area withdrawal. The objective and DFC would be met.

Idaho Army National Guard: Alternative B

IDARNG Training Area and/or Training Opportunities: There would be slight long-term adverse impacts to IDARNG training flexibility. Of the approximate 1,100-vehicle maneuver TDs that would be removed from the Bravo Area, approximately 80% of the TDs would be transferred to the expansion area and the rest of the OTA. Because of the additional travel time to the expansion area there would be a slight loss in training capability. The net acres available for off road vehicle maneuver training would increase resulting in a moderate to high localized benefit in the long-term. The topographic characteristics of the expansion area provide for greater variety and higher quality of off-road training, as well as the possibility of accommodating increased numbers and/or types of training. The mandatory requirement to avoid shrub areas would slightly limit IDARNG flexibility in the long-term. The areas designated for excavation training (3 sites totaling 105 acres) would result in moderate to high long-term beneficial impacts.

Lands and Realty Activities: Impacts from withdrawing the OTA Impact Area would be as described in Alternative A.

Livestock Grazing Management Activities: Impacts would be as described in Alternative A.



Recreation Management Activities: Recreational shooting restrictions would have moderate long-term beneficial impacts at the local level. Other recreation impacts would be the same as identified in Alternative A.

Vegetation – Noxious Weeds Management Activities: Impacts would be as described in Alternative A.

Conclusion – Idaho Army National Guard – Alternative B

Mandatory restrictions on training in shrub areas would slightly to moderately reduce IDARNG training flexibility in the short- and long-term. Withdrawal of the Impact Area and increased training opportunities in the expansion area and excavation areas would have moderate to high long-term benefits. There would be slight adverse impacts from livestock grazing, dispersed recreation, and increased travel time to new training areas. The objective and DFC would be met.

Idaho Army National Guard: Alternative C
IDARNG Training Area and/or Training Opportunities: There would be moderate long-term adverse impacts to IDARNG training flexibility. During brigade size training events (which traditionally occur sometime during May, June, and July), short-term impacts to training capability would be high. The net acres available for off-road vehicle maneuver training would decrease by 22,300 acres. Approximately 90% of the vehicle maneuver training removed from the Bravo Area could be accommodated in the Alpha, Charlie and Delta areas. This transfer would result in a slight to moderate loss of training capability due to scheduling conflicts and additional travel time. The impacts of the mandatory requirement to avoid shrub areas would be the same as Alternative B; however, they would not be mitigated by an additional training area. The loss of a large bivouac site in the Bravo Area that could not be accommodated in the remainder of the OTA would result in a moderate short-term adverse impact. Impacts on

excavation training would be the same as described in Alternative A.

Lands and Realty Activities: Withdrawal of the OTA Impact Area would have the same impacts as described in Alternative A. The removal of 3,900 acres from the OTA would have negligible short- and long-term impacts to IDARNG because they have voluntarily restricted training in this area since 1995.

Livestock Grazing Management Activities: Elimination of livestock grazing would result in a slight long-term beneficial impact.

Recreation Management Activities: Recreational shooting restrictions would have the same impacts as identified in Alternative B. Impacts of dispersed recreation would be the same as identified in Alternative A.

Vegetation – Noxious Weeds Management Activities: Impacts would be the same as identified in Alternative A.

Conclusion – Idaho Army National Guard: Alternative C

Collectively, the loss of training acreage, mandatory restrictions in shrub areas, scheduling conflicts, and loss of TDs would have moderate long-term adverse impacts to IDARNG training flexibility and high short-term adverse impacts to training capability during key training periods (May, June and July). Withdrawal of the Impact Area would have moderate long-term benefits. The objective and DFC would be met.

Idaho Army National Guard: Alternative D
IDARNG Training Area and/or Training Opportunities: There would be slight short- and long-term adverse impacts to IDARNG training. Of the approximate 1,100-vehicle maneuver TDs that would be removed from the Bravo Area, approximately 94% of the TDs could be transferred to the expansion area and the rest of the OTA. There would be a slight loss of training capability because of additional travel time to the expansion area. The



net acres available for off-road vehicle maneuver training would decrease; however, as a result of the expansion area training opportunities would be sustained resulting in no impact. The impacts of the mandatory requirement to avoid shrub areas would be the same as Alternative B. The areas designated for excavation training (2 sites totaling 55 acres) would result in moderate long-term beneficial impacts.

Lands and Realty Activities: Impacts of the withdrawal would be the same as described in Alternative A.

Livestock Grazing Management Activities: Impacts would be as described in Alternative A.

Recreation Management Activities: Impacts of recreational shooting restrictions in the OTA would be the same as those identified in Alternative A. Impacts of dispersed recreation would be the same as identified in Alternative A.

Vegetation – Noxious Weeds Management Activities: Impacts would be same as identified in Alternative A.

Conclusion – Idaho Army National Guard: Alternative D

Mandatory restrictions on training in shrub areas would slightly reduce IDARNG training capability in the short- and long-term. Withdrawal of the Impact Area and increased training opportunities in the expansion area and excavation areas would have moderate long-term benefits. There would be slight short- and long-term adverse impacts from livestock grazing, dispersed recreation, and increased travel time to new training areas. The objective and DFC would be met.

4.2.13 Lands and Realty

Summary

Alternatives B, C, and D identify a second utility corridor the impacts of which would be partially mitigated by the enlarged avoidance

areas identified in those same alternatives. Impacts of land consolidation would be beneficial in all alternatives. The realignment of the NCA boundary in Alternatives C and D would enhance use and management.

Assumptions

- All lands and realty proposals undergo site-specific NEPA analysis, and must be compatible with the purposes for which the NCA was established.
- A new utility corridor could eventually result in the construction of high-tension electrical transmission lines, oil and gas pipelines, ancillary facilities, and associated access roads.
- Short-term impacts would be those impacts that either recover or are restored within ten years of an action. Long-term impacts would be those impacts that take longer than ten years to recover.
- Changes in the OTA boundary would not preclude other lands and realty actions.

How Activities Affect Lands and Realty

Direct Impact

Avoidance Areas

Avoidance areas have beneficial short- and long-term effects on cultural and visual resources and wildlife habitat by reducing localized development-related impacts on soils and vegetation.

Boundary Adjustments

- Boundary adjustments would make management more efficient, and would improve the protection of sensitive resources by allowing users to more clearly identify where special NCA land use regulations apply.

Land Ownership Consolidation

- Private lands near expanding population centers are susceptible to residential, commercial, or industrial development. Consolidation would reduce short- and long-term opportunities for offsite impacts from these types of development, such as increased off-highway vehicle use, intro-



duction and spread of noxious weeds, chemical overspray, trash or debris, and human caused fires. State lands are available for disposal where it meets the State mandate to maximize economic return to the school endowment fund. Acquisition of State and private lands would ensure they remain undeveloped over the long-term. In the short- and long-term, consolidated Federal ownership would increase management efficiency and reduce management costs and liabilities.

Utility Corridors

- Utility corridor would eventually result in the construction of ancillary facilities and associated access roads. Improved access would increase uses and require greater management presence.

Withdrawal of the OTA Impact Area

- Withdrawal of the OTA Impact Area to the DoD would preclude BLM administered lands and realty actions within the area. The DoD would assume responsibility for lands and realty authorizations.

Discussion of Impacts by Alternative

Lands and Realty: Alternative A

Maintaining the existing NCA boundary would have slight short- and long-term adverse impacts to NCA management because the current boundary is difficult to identify on the ground, thus increasing the opportunity for inappropriate and unauthorized uses. The existing 43,000 acre avoidance area would limit location of large-scale utility developments, which would result in slight short- and long-term beneficial impacts. Retaining the existing utility corridor (Lands Map 2) would provide moderate benefits by precluding long-term landscape-scale impacts from major utility developments. Consolidating land ownership would provide moderate long-term beneficial impacts at the landscape level. There would be no impacts from the withdrawal of the OTA Impact Area.

**Conclusion – Lands and Realty:
Alternative A**

Consolidating land ownership and precluding major utility developments would have moderate long-term landscape-wide benefits. Maintaining the existing boundary would result in slight long-term adverse impacts landscape-wide. The objective and DFC would be met.

Lands and Realty: Alternative B

Maintaining the existing NCA boundary and consolidating land ownership would have the same impacts as identified in Alternative A. The 105,000-acre avoidance area would limit location of large-scale utility developments, which would result in moderate long-term landscape-wide benefits. Locating major utilities in a second corridor would provide slight long-term benefits by concentrating environmental impacts; however, there would be moderate long-term adverse impacts at the landscape level because of increased uses and the need for greater management presence. Impacts from the withdrawal of the OTA Impact Area would be the same as Alternative A.

**Conclusion – Lands and Realty:
Alternative B**

Consolidating land ownership would have moderate long-term landscape-wide benefits. Maintaining the existing boundary and providing a second utility corridor would result in slight to moderate long-term adverse impacts at the landscape level. There would be moderate long-term benefits from the avoidance area at the landscape level. The objective and DFC would be met.

Lands and Realty: Alternative C

Realigning the NCA boundary (Lands Map 6) would have moderate landscape-wide short- and long-term benefits. Consolidating land ownership would have the same impacts as Alternative A. The 163,600-acre avoidance area (Lands Map 5) would have the same impacts as Alternative B, but over a larger area. Locating major utilities in a second corridor would provide slight long-term benefits by



concentrating environmental impacts; however, there would be moderate long-term adverse impacts at the local level because of increased uses and the need for greater management presence, as well as potential impacts to use of the Saylor Creek Bombing Range, since the corridor would lie within an air space restriction zone. Impacts from the withdrawal of the OTA Impact Area would be the same as Alternative A.

**Conclusion – Lands and Realty:
Alternative C**

Consolidating land ownership and realigning the boundary would have slight to moderate long-term landscape-wide benefits. Providing a second utility corridor would result in slight to moderate long-term adverse impacts. There would be moderate long-term benefits from the avoidance area at the landscape level. The objective and DFC would be met.

Lands and Realty: Alternative D

Revising the NCA boundary (Lands Map 7) would have the same impacts as Alternative C. Retaining the existing utility corridor (Lands Map 2) and avoidance area (Lands Map 3), withdrawal of the OTA Impact Area, and consolidating land ownership would have the same impacts as Alternative A. Locating major utilities in a second corridor would provide slight long-term benefits by concentrating environmental impacts; however, there would be moderate long-term adverse impacts at the local level because of increased uses and the need for greater management presence.

**Conclusion – Lands and Realty:
Alternative D**

Consolidating land ownership and realigning the boundary would have slight to moderate long-term landscape-wide benefits. Providing a second utility corridor would result in slight to moderate long-term adverse impacts. There would be slight long-term landscape-wide benefits from the avoidance area. The objective and DFC would be met.

4.2.14 Livestock Grazing

Summary

Alternatives A and B would have minimal adverse impacts on livestock grazing. As a result of vegetation treatments, Alternative D would have moderate short-term adverse impacts and moderate long-term benefits. Alternative C has no livestock grazing and would result in high long-term adverse impacts.

Assumptions

- Desirable forage such as native or desirable non-native perennial grasses are generally used by livestock before less desirable forage, such as annual grasses and weeds.
- Fuels management projects that use concentrated livestock grazing to decrease hazardous fuels would have no direct affect on livestock grazing permits.
- Livestock grazing would continue at some level in the OTA Impact Area following withdrawal of the area to the DoD.
- Livestock affected by grazing restrictions or AUM reductions would not be dispersed to other pastures or allotments.
- For discussions about military training, landscape-wide is the entire OTA (and proposed expansion areas), not the entire NCA.
- Short-term impact would be less than the permit life (≤ 10 years). Long-term impact would be greater than the permit life (> 10 years).

How Activities Affect Livestock Grazing Management

Direct Impacts

Idaho Army National Guard Activities

- IDARNG hardened bivouac sites and assembly areas have localized adverse, direct short- and long-term effects on livestock grazing by eliminating forage production and displacing livestock. Vehicle maneuver training and live fire exercises cause short-term disturbance to livestock. IDARNG reduces some of the direct conflicts with livestock grazing by not con-



ducting live fire exercises in the OTA Impact Area during the month of April.

Livestock Grazing Management Activities

- Implementation of S&Gs could result in short-term adverse impacts including changes in frequency, timing, intensity, and duration of livestock use. Potential long-term benefits would include ecological improvements to perennial communities, which would produce more forage or would reduce the potential for restrictions associated with S&Gs.
- Eliminating livestock grazing would result in adverse impacts in the short- and long-term.

Sensitive Resources (SSS and Cultural) Management Activities

- Excluding grazing or restricting the level, duration, or season of livestock grazing in areas with known SSS would have an adverse impact on livestock grazing, short- and long-term, by reducing the acreage of available forage.

Vegetation – Fire Suppression Activities

- An emphasis on protecting SSP populations and shrub communities could result in less emphasis in annual grass areas, thus, resulting in larger fires in non-shrub communities. This loss of forage would cause adverse direct and indirect impacts to livestock in affected areas.
- Following wildfires, ESR activities could close affected allotments or pastures, resulting in additional short-term direct adverse impacts to grazing from reduced forage.

Vegetation – Fuels Management Activities

- Hazardous fuels accumulations, extended fire seasons, and increased connectivity of fuels have resulted in larger, more severe wildfires with shorter intervals between fires (USDI 2000a; Klemmedson and Smith 1964). Fuel breaks and fuels reduction projects would be used to reduce the amount and continuity of hazardous fuels.

These projects would have a short-term, adverse direct impact on livestock grazing by excluding livestock until the treated areas have adequately responded to the fuels treatments. These site-specific impacts would vary by type, size and location of the fuels management project.

Vegetation – Research Areas

- Research set asides would have a adverse, localized, direct impact, short- and long-term, on livestock grazing by excluding use within the affected sites and reducing overall available forage.

Vegetation - Restoration Activities

- Research set asides would have a adverse, localized, long-term direct impact on livestock grazing by excluding use within the affected sites and reducing overall available AUMs.
- Restoration projects would have direct short-term adverse impacts on livestock grazing by reducing available forage in affected allotments or pastures during post-treatment rest and deferment periods.

Indirect Impacts

Idaho Army National Guard Activities

- Military training-related disturbance of soils and vegetation (see Upland Vegetation) have an adverse, indirect affect on livestock grazing, short- and long-term, by reducing available forage. However, IDARNG fire fighting responsibilities benefit livestock grazing indirectly by reducing potential landscape-scale loss of forage from wildfires. Military related impacts may be reduced by actions taken by IDARNG under their environmental management programs (i.e., revegetation projects, restricted access, erosion control, training site monitoring, etc.)

Riparian/Wetland Management Activities

- Actions taken to maintain or improve riparian plant communities would have an adverse short-term indirect impact on livestock grazing through reductions in live-



stock numbers and restrictions in seasons and durations of grazing along the riparian corridor. In the long-term, riparian area improvements could result in localized increases in livestock stocking rates and or changes in seasons or durations of use.

Sensitive Resources (SSS and Cultural) Management Activities

- Restrictions associated with SSS could cause short- or long-term adverse, impacts on livestock grazing by constraining opportunities for the construction of rangeland management projects (i.e. fences, cattleguards, etc.). In the absence of these range projects, livestock could potentially degrade upland or riparian plant communities to a point that would require restrictions, exclusions, or reduced AUMs. The result would be a long-term adverse, indirect impact on livestock grazing. However, localized restrictions and exclosures associated with known occurrences of SSS could also have a long-term beneficial affect on livestock grazing. By protecting these sites from livestock grazing impacts, future ESA listings or conservation agreements, which could restrict or exclude livestock grazing in all potential habitats associated with the species, could be prevented; therefore, future restrictions, exclusions, or AUM reductions could be averted.

Vegetation – Fuels Management Activities

- Decreasing the amount or continuity of fuels would potentially reduce the size and severity of future fires, thus reducing forage loss. Limiting the size of wildfires would have a beneficial, short-term indirect impact on livestock grazing by decreasing potential AUM reductions associated with post-fire rest and deferment periods. Furthermore, if fuels projects increased the intervals between fires, native or desired plant communities would have more time to regenerate or reestablish, which would have a long-term, beneficial indirect effect of increasing desirable forage production. Since perennial forage

production fluctuates far less than annual forage production, permittees would be provided a more predictable and reliable forage base on which to depend.

Vegetation – Research Areas

- There could be a potential long-term indirect beneficial impact if research conducted in these research areas provided information that could improve the methods used to effect improvements in vegetation community ecological condition and associated forage production.

Vegetation – Noxious Weeds Management

- Weed treatment programs that reduce noxious weeds would have a short- and long-term beneficial, indirect impact on livestock grazing by reducing populations of unpalatable or toxic species. Weed treatments that limit the structural and functional alteration of desirable plant communities and reduce competition with desirable forage species would have short- and long-term beneficial, indirect affects on livestock grazing by increasing available forage. However, noxious weed treatments could have short-term adverse, indirect affects on livestock grazing by adversely affecting non-target desirable plant species, thereby reducing short-term forage production and availability. Treatment-related losses of desirable forage species could also have a long-term adverse, indirect impact by limiting the reproductive population of native or desirable plants; thereby, reducing a site's ability to resist disturbance or naturally reestablish, which could lead to future livestock grazing restrictions, exclusions, or reduced AUMs.

Vegetation – Restoration Activities

- Restoration would have a long-term, beneficial indirect affect on livestock grazing by improving the ecological condition of the treated pasture(s), which would help to increase and stabilize the forage base. Actively seeding an area can supplement native seed sources, thereby enhancing miss-



ing components of the plant community. Thus, potential grazing reductions associated with resting restored areas could be reduced, since active restoration would effect change much quicker than natural regeneration (Vallentine 1989). Restoration of the structural and functional components of degraded sites (see upland vegetation) could increase the overall long-term production of desirable forage, and the ability of the vegetation community to resist less desirable invasive species (Yensen 1981, pp 177-179; Young and Evans 1978, pp 284-287). Restoration activities that increase a site's ability to resist disturbances or naturally reestablish after a disturbance could decrease the amount of time livestock grazing would be reduced following restoration.

Visual Resource Management Activities

- Areas classified as VRM Class I could have long-term adverse effects on livestock grazing by limiting BLM ability to use range management tools, such as fences, water and salt placement, etc., that would limit grazing-related impacts to soils, vegetation, wildlife, etc. Without these management tools, sites could become degraded, which could result in seasonal restrictions or AUM reductions.

Discussion of Impacts by Alternative

Livestock Grazing: Alternative A

Idaho Army National Guard Activities: Military training activities in the OTA affect approximately 30% of the Sunnyside Spring/Fall and Sunnyside Winter allotments. Because these are large allotments, permittees have greater flexibility in adjusting to potential impacts from training activities. There would be slight long-term localized adverse impacts from the seasonal conflicts with military activities in the Impact Area. These impacts occur predominantly in April.

Livestock Grazing Management Activities: Implementing S&Gs (Appendix 3) would result in slight to moderate localized adverse impacts in the short-term and slight long-term

benefits in perennial communities. There would be negligible benefits in annual communities. Approximately 3,900 acres would be ungrazed by livestock along the Snake River (Grazing Map 4) and would result in a negligible long-term adverse impact of less than 400 AUMs at the local level.

Riparian/Wetland Management Activities: Riparian and wetland treatments (1 mile) would have negligible adverse short-term localized impacts.

Sensitive Resources (SSS and Cultural) Management Activities: Where grazing is restricted (19,400 acres) to protect sensitive resources, there would be a moderate localized adverse impact over the long-term. If the sensitive resources occur across the landscape, as with slickspot peppergrass, the impacts would be slight and landscape-wide over the long-term.

Vegetation – Fire Suppression Activities: Because non-shrub areas are widespread and account for approximately 60% of the NCA, emphasizing fire suppression in SSP habitat and remnant shrub communities could have a slight to moderate long-term adverse impact at the landscape level by allowing more acres of annual grassland to burn.

Vegetation – Fuels Management Activities: The limited acreage to be treated (2% of the NCA) would cause localized short-term adverse and long-term beneficial impacts.

Vegetation – Noxious Weeds Management Activities: Noxious weed treatments would have slight localized short-term benefits. Because noxious weeds would likely increase over the long-term, there could be slight to moderate long-term adverse impacts at the landscape level.

Vegetation – Restoration Activities: Habitat restoration treatments would result in slight short-term adverse and slight long-term beneficial impacts primarily in the Sunnyside Spring/Fall and Sunnyside Winter allotments.



Visual Resource Management Activities: VRM I classification would have negligible adverse impacts. There would be no impacts from the other VRM classifications.

**Conclusion – Livestock Grazing:
Alternative A**

The long-term landscape-wide benefits of implementing S&Gs would be slight in perennial communities and negligible in annual communities. Activities that protect or enhance special resources would have moderate short- and long-term moderate localized impacts. Impacts with military activities would be moderate and localized. The objective and DFC would be met.

Livestock Grazing: Alternative B

Idaho Army National Guard Activities: There would be increased military training-related impacts to livestock grazing compared to Alternative A. Due to current IDARNG training restrictions, there would be few if any additional military training-related impacts to grazing in the OTA Bravo Area. However, short-term localized adverse impacts to livestock grazing would be increased in five grazing allotments that are affected in whole or in part by the 20,400 acre expanded Maneuver Area, since military training would occur while livestock are also using the area. To facilitate vehicle maneuvers, some pasture and allotment fences would be removed or relocated, which would cause slight to moderate localized long-term adverse impacts.

Livestock Grazing Management Activities: Impacts would be the same as Alternative A, except approximately 800 AUMs would be eliminated or seasonally restricted on an additional 4,700 acres (Grazing Map 5) and the Pasture 8B would be closed to grazing. In addition, grazing restrictions in Sandberg bluegrass areas to benefit Piute ground squirrels would cause slight to moderate short-term localized adverse impacts on livestock grazing.

Riparian/Wetland Management Activities: Because much of the riparian area is not avail-

able for livestock grazing, improving these areas (up to 20 miles) would have slight short-term adverse and slight long-term beneficial impacts at the local level.

Sensitive Resources (SSS and Cultural) Management Activities: The impacts would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: The impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Based on the number of acres affected (up to 70,000 acres) there would be slight to moderate short-term adverse and long-term beneficial impacts at the local level.

Vegetation – Noxious Weeds Management Activities: Noxious weed treatment (approx 2,500 acres per year) would result in slightly beneficial localized short-term impacts.

Vegetation – Research Areas: Setting aside 1,000 acres for research would have negligible localized short- and long-term adverse impacts to livestock grazing by closing this area to grazing. However, if research is successful, it could have slight to moderate long-term beneficial impact.

Vegetation – Restoration Activities: Impacts would be the same as described in Alternative A except that a larger area would be restored (up to 50,000 acres). There would be a slight to moderate short-term loss of up to 4,400 (15%) actual use AUMs as a result of post-treatment rest and deferment periods following habitat restoration and rehabilitation projects. Following rest and deferment periods, there would be moderate to high long-term improvement in forage production and stability at the landscape level.

Visual Resource Management Activities: With no sites being classified as VRM Class I or II, there would be no impact to livestock grazing.



**Conclusion – Livestock Grazing:
Alternative B**

Implementing S&Gs would be slightly beneficial in perennial and riparian communities over the long-term and would have negligible impacts in annual communities. Activities that protect or enhance special resources would have moderate short- and long-term localized impacts. Vegetation treatments would have moderate short-term adverse impacts at the local level and moderate long-term beneficial impacts at the landscape level. The objective and DFC would be met.

Livestock Grazing: Alternative C

Eliminating grazing, with the exception of intensively managed grazing for fuels management, would highly adversely affect livestock grazing permittees across the NCA

**Conclusion – Livestock Grazing:
Alternative C**

Eliminating grazing would be highly adverse over the short- and long-term at the landscape level. The objective and DFC would not be met.

Livestock Grazing: Alternative D

Idaho Army National Guard Activities: Impacts would be the same as described in Alternative A; however, the 4,100-acre (IDARNG Map 5) expansion area would occur only in the Sunnyside Spring/Fall allotment.

Livestock Grazing Management Activities: Impacts would be the same as described in Alternative B, except that grazing restrictions in Sandberg bluegrass areas to benefit Piute ground squirrels would cause slight to moderate short-term localized adverse impacts on livestock grazing.

Riparian/Wetland Management Activities: Impacts would be the same as described in Alternative B.

Sensitive Resources (SSS and Cultural) Management Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fire Suppression Activities: Impacts would be the same as described in Alternative A.

Vegetation – Fuels Management Activities: Impacts would be the same as described in Alternative B but would occur over an additional 30,000 acres.

Vegetation – Noxious Weeds Management Activities: Noxious weed treatment (approx 4,000 acres per year) would result in moderate landscape-wide beneficial long-term impacts.

Vegetation – Research Areas: Impacts would be the same as described in Alternative B but would occur over a total of 5,000 acres.

Vegetation – Restoration Activities: Restoring 130,000 acres would moderately adversely affect forage availability at the landscape level in the short-term, but would provide moderate long-term benefits through increased perennial forage production and stability.

Visual Resource Management Activities: Impacts would be the same as described in Alternative B.

**Conclusion – Livestock Grazing:
Alternative D**

Implementing S&Gs would provide slight long-term beneficial impacts in perennial and riparian communities and negligible impacts in annual communities. Activities that protect or enhance special resources would have moderate short- and long-term localized impacts. Vegetation treatments would have moderate short-term adverse impacts and moderate to high long-term beneficial impacts at the landscape level. The objective and DFC would be met.

4.2.15 Mineral Resources

4.2.15.1 Leasable Minerals

The NCA-enabling legislation withdrew the area from locatable and leasable mineral entry and disposal. Therefore, leasable minerals are



not an issue in the NCA. See section 2.2.15.2 of the Affected Environment Chapter 2.

4.2.15.2 Mineral Materials

Summary

Alternatives A and D would fully meet their identified objectives by continuing to authorize mineral material sales and free use permits in existing active and inactive sites to the extent compatible with the NCA-enabling legislation. Alternatives B and C would limit mineral material sales and free use permits to existing active sites, and therefore, would only partially meet the objectives.

Assumptions and Elements of the NCA Legislative Withdrawal.

- There are no existing mining claims and no new claims may be located.
- No new mineral material sites can be established.
- No mineral leases can be authorized within the NCA.
- Criteria for determining impacts are different for mineral materials than for other renewable resources. Management actions would have much less of an impact on the resource than on the opportunities to use the resource, therefore discussion of impacts from mineral materials is discussed in the Socio-Economics Section 4.2.22 of this chapter.
- Short-term impacts are those that occur when the site is active. Long-term impacts would be those that are apparent 10 years after the site is closed.

How Activities Affect Mineral Resources

- None

Discussion of Impacts by Alternatives

Mineral Materials: Alternatives A and D

The existing 3 open cinder sites could be increased by 3 that are currently not in use and the existing 15 open sand and gravel sites could be increased by opening 18 inactive sites. In addition, 2 currently inactive rock sites and approximately 9 other inactive sites

of various types could be made available. The two existing open clay sites would also be available. Based on the enabling legislation, when materials are depleted from these sites, no additional areas would be opened. There would be no adverse or beneficial impact to the minerals program. Other impacts are discussed by resource (i.e., surface disturbing activities in Fish and Wildlife, Soils, SSPs, etc.). Impacts to the users of mineral resources are discussed in Socio-Economic Section 4.2.22.

Conclusion – Mineral Materials:

Alternatives A and D

Maximizing compatible mineral material development would have no impacts to the availability of mineral materials. The objective would be met. No DFC was identified.

Mineral Materials: Alternatives B and C

Mineral material extraction would only be authorized from active sites, which consist of 3 cinder, 2 clay, and 15 sand and gravel sites. When materials are depleted from these sites, no additional areas would be opened resulting in a net reduction of available mineral materials. Other impacts are discussed by resource (i.e., surface disturbing activities in Fish and Wildlife, Soils, SSPs, etc.). Impacts to the users of mineral resources are discussed in Socio-Economic Section 4.2.22.

Conclusion – Mineral Materials:

Alternatives B and C

Authorizing mineral material extraction from existing open sites would have slight adverse impacts on the availability of mineral materials. The objective would be met. No DFC was identified.

4.2.15.3 Locatable Minerals

The NCA-enabling legislation withdrew the area from locatable and leasable mineral entry and disposal. Therefore, locatable minerals are not an issue in the NCA. See Section 2.2.15.4 in the Affected Environment Chapter 2.



4.2.16 Recreation

Summary

Also see section 4.3.14 – Transportation.

- The recreation objectives would be met under each alternative over the short-term. Insufficient recreation facilities in Alternative A would not meet increased user demands over the long-term, due to population growth.
- The DFC would not be met in Alternative A because unmitigated environmental impacts associated with recreation would increase over the long-term. Alternative B addresses projected user demand conflicts with more intensive management than Alternative A and would meet the DFC. Alternatives C and D would each meet their respective objectives and DFC.
- Each alternative provides varying degrees of restoration, hazardous fuels reduction and recreation management, which will all affect the recreational experience. These activities generally result in long-term benefits at the cost of short-term adverse impact to the recreation experience. Each alternative provides different opportunities for motorized recreation opportunities; however, these differences are insignificant across the landscape. Alternative A would have the greatest emphasis on motorized recreation, while Alternative C would provide the most non-motorized opportunities. Alternative D provides the greatest range of recreational opportunities and balances this with the greatest amount of vegetation restoration
- Under Alternatives B and C, various stretches of the Snake River would be recommended for recreational classification under the W&SR Act. Alternative C would recommend more than twice as many river miles for classification as Alternative B. No recommendations would be made under Alternatives A and D.

Assumptions

- Recreation use would increase in correlation with population growth over the next 20 years, meaning that the number of rec-

reation visits would increase significantly. Growth in the area has increased over 45% in the last ten years and this number will continue to go up at an even greater rate.

- For purposes of analysis, the ROS acres for semi-primitive motorized and roaded natural are combined into roaded natural.
- Short-term impact would be four years or less. Long-term impact would be greater than four years.

How Activities Affect Recreation Management

Direct Impacts

Recreation – Campfire Restrictions

- Campfire restrictions would limit the recreational experiences for some individuals. Limiting campfires to established campsites or metal fire pans would improve the visual nature of the area by limiting the appearance of fire rings and ashes on the landscape.

Recreation – Facilities Development

- The primary adverse impacts are increased localized surface disturbance associated with the construction of new facilities. Adverse impacts to localized areas would increase somewhat by concentrating use in the area of development. Properly developed use “hardens” part of the area to contain the impacts from surface disturbance with the goals of protecting the surrounding area and meeting user demands. Constructing new recreation facilities would cause short-term impacts to the visual quality of the affected area by disturbing soils and vegetation, and disrupting wildlife.

Recreation – Shooting Restrictions

- Shooting restrictions reduce opportunities for recreational shooting, thus concentrating shooters into smaller areas outside of the restricted areas.



Riparian and Wetlands Management Activities

- Maintaining and improving riparian and wetland areas would attract wildlife and improve related recreation opportunities, such as fishing, wildlife viewing, bird-watching and hiking in the short- and long-term at the affected sites. If affected areas are fenced during restoration, the areas would.
- Sensitive Resources (SSS and Cultural).

Transportation Area Designations and Route Designation Criteria

- Existing land use plans designate no “open” areas in the NCA. All areas outside of the OTA Impact Area are limited to designated routes, but vehicles are required to remain on existing routes until the route designation process is complete.
- Designating areas as closed to motorized vehicles would have direct adverse effects to motorized recreation. Restricting vehicles to designated routes would beneficially affect dispersed non-motorized recreation that normally occurs off-road, such as hiking, backpacking, horseback riding, and wildlife viewing.
- Application of the route designation criteria within the limited to designated areas will have slight adverse impacts to motorized use in or around areas containing sensitive resources but will have slight beneficial long-term impacts by eliminating conflicts and providing a range of recreation opportunities.

Fuels Management and Habitat Restoration Activities

- Mechanical treatments would disturb soil and vegetation and reduce recreational and scenic quality in the short-and long-term.
- Access closures would reduce recreation opportunities and displace recreation in the long-term.

Indirect Impacts

Idaho Army National Guard Activities

- Increased interactions and conflicts between the recreating public and military

training pose public safety concerns in the OTA and displace recreational activities.

Livestock Grazing Management Activities

Eliminating or restricting livestock grazing to seasons when recreation use is lower would decrease human/livestock encounters, which would enhance primitive recreation opportunities in the short-term. Depending on the individual and the setting, livestock encounters could be either beneficial or adverse.

Recreation – Campfire Restrictions

- Between 1980 and 2004, human caused fires were responsible for 70% of fire ignitions that burned 30% of the NCA. A change in campfire regulations could help reduce one component of human-caused fires that accounted for 4% of fire starts and 10% of the acres burned. Campfire restrictions would decrease the likelihood large wildfires that impair the scenic quality of the landscape.

Recreation – Facilities Development

- Expanding or constructing new recreation facilities would provide additional recreation opportunities and attract increased recreation use from adjacent areas.
- Hardened facilities would focus use to less sensitive areas, and would increase opportunities for public education, public safety, and enforcement efforts.

Recreation – Shooting Restrictions

Shooting restrictions reduce impacts to dispersed forms of recreation, such as hiking, backpacking, and nature viewing due to fewer user conflict and safety concerns which would lead to short- and long-term beneficial impacts.

Riparian and Wetlands Management Activities

Restricting recreation developments within ¼ mile of occupied sensitive plant habitat would not likely meet increased user demands. However, non-consumptive recreation, including hiking, backpacking,



and wildlife viewing would be enhanced at the landscape level. Opportunities for interpretation of sensitive resources, including the Oregon Trail could have beneficial impacts.

Special Designations – Special Recreation Management Areas (SRMAs)

- SRMAs are designated for the purpose of protecting important resources, including recreational, scenic, and cultural values and opportunities, especially in areas that warrant more intensive management because of higher levels of recreation use and conflict. SRMA designation focuses beneficial short-and long-term management and funding on high use areas, helping to protect sensitive resources through public outreach and education, site development, and road and trail construction and maintenance; concentrating recreation use in areas best suited for that use; and providing effective enforcement and emergency response.

Special Designations – Wild and Scenic Rivers

- Recommending that segments of the Snake River are suitable for designation as Recreational Rivers under the W&SR Act would place heightened emphasis on the management and protection of the outstandingly remarkable values contained in the recommended segments, including wildlife viewing opportunities. The recommendation would protect recreational opportunities by minimizing the potential for the free-flowing nature of the river to be altered creating a beneficial short-and long-term direct impact.

Transportation Area Designations and Route Designation Criteria

- Designating closed areas and restricting vehicles to designated routes would beneficially affect recreation indirectly by reducing disturbance to soils, biological crusts, and vegetation, and helping curtail the spread of invasive and noxious weeds, which would improve raptor prey habitat,

help stabilize raptor populations, and increase wildlife viewing opportunities.

Fuels Management and Habitat Restoration Activities

- Successful habitat restoration and fuels treatment projects could attract additional recreation use, and result in higher levels of recreation-related impacts including, vegetation trampling, wildlife disturbance, and human-caused fire.

Visual Resource Management

- VRM classifications that limit surface disturbing and visually intrusive recreation developments would indirectly limit recreational uses and activities normally associated with these developments. Restrictions on recreational developments in VRM Class I and II areas would beneficially affect individuals who are seeking opportunities for semi-primitive non-motorized recreation. However, restricting the development of new roads, trails or facilities would reduce available recreational opportunities for those who would use and benefit from these improvements. VRM Classes III and IV would not impact recreation.

Discussion of Impacts by Alternatives

Recreation: Alternative A

Idaho Army National Guard: Military training would displace recreational activities resulting in slight localized short-term adverse impacts. Military activities and associated impacts to soils and vegetation in the OTA would cause slight short- and long-term adverse impacts to visual quality for those seeking a more primitive and undisturbed recreational experience.

Livestock Grazing Management: Closures to livestock grazing on 3,900 acres would slightly benefit recreation in the short- and long-term at the local level by eliminating the possibility of user conflicts with livestock.

Recreation – Facilities Development: A lack of new recreation facilities would not meet the



projected increase in demand resulting in slight to moderate adverse impacts in the short- and long-term at the local and landscape levels. Managing and improving the three existing watchable wildlife sites would have slight localized benefits over the short- and long-term.

Recreation – Shooting Restrictions: Recreational shooting restrictions would have slight adverse impacts at the local level; however, there would be slight to moderate long-term benefits from reduced conflicts with other dispersed recreation activities.

Riparian and Wetlands: Improving riparian habitat (1 mile) would have negligible impacts.

Sensitive Resources (SSS and Cultural): Restrictions on use and development near occupied SSS habitat and cultural sites would have a slight short- and long-term adverse impact at the local level.

Special Designations – SRMAs: The overlapping SRMAs would provide negligible benefits.

Special Designations – Wild & Scenic Rivers: Continuing to protect outstandingly remarkable values and free flowing conditions along portions of the 49 free-flowing miles of the Snake River that flow through public lands would have slight short-term beneficial impacts to river-based recreation by protecting the values and conditions on three of the four free-flowing segments. The fourth segment is bordered on both sides almost exclusively by private lands over which BLM has no legal or regulatory control.

Transportation: Application of the route designation criteria could have moderate adverse localized impacts to motorized vehicle users in the short- and long-term.

Vegetation – Fuels Management: There would be slight short-term adverse impacts from treating 10,000 acres (2% of the NCA) primar-

ily in Management Area 1. Successfully treated areas would slightly enhance recreational experiences and opportunities in the long-term at the local level.

Vegetation – Restoration: Slight short-term adverse impacts from treating 10,000 acres (2% of the NCA) would occur primarily in Management Area 1. Successfully treated areas would enhance recreational experiences and opportunities moderate in the long-term at the local level.

Visual Resource Management: The recreational experience for those seeking solitude in a more natural setting would be enhanced through more restrictive VRM Classifications (Class I and II) in approximately 31,700 acres along the Snake River corridor (VRM Map 1). Conversely, these classifications would result in moderate localized adverse impacts on recreational development over the long-term.

Conclusion – Recreation: Alternative A

Recreational developments would not keep up with demand, which would result in moderate to high landscape-wide adverse impacts over the long-term. Vegetation treatments, VRM classifications, application of route designation criteria, and livestock closures would have slight long-term benefits at the local level. The objectives and DFC would be met.

Recreation: Alternative B

Idaho Army National Guard: Impacts would be the same as discussed in Alternative A except the area would include an additional 20,400 acres in an area that gets dispersed recreational use. Restrictions on maneuver training in the 22,300 acre Bravo Area would slightly decrease military activity, which would have slight beneficial short- and long-term beneficial impacts to dispersed recreation.

Livestock Grazing Management: Closures (7,300 acres) and seasonal restrictions (1,300 acres) to livestock grazing (Grazing Map 5) would moderately benefit recreation in the



short- and long-term at the local level by eliminating the possibility of user conflicts with livestock.

Sensitive Resources (SSS and Cultural): Impacts would be the same as discussed in Alternative A.

Recreation – Campfire Restrictions: Restricting campfires to improved sites would cause slight long-term adverse impacts. The restriction, however, would have slight short- and long-term beneficial impacts due to a reduction in wildfires.

Recreation – Facilities Development: Proposed recreation facilities would not meet the projected increase in demand resulting in slight to moderate adverse impacts in the long-term at the local and landscape levels. Managing and improving the three existing watchable wildlife sites would have the same impacts as discussed in Alternative A.

Recreation – Shooting Restrictions: Recreational shooting restrictions would have moderate adverse impacts at the landscape level; however, there would be moderate long-term beneficial impacts from reduced conflicts with other dispersed recreation activities.

Riparian and Wetlands: Improving riparian habitat (20 miles) would have a slight to moderate beneficial impact at the local level in the long-term.

Special Designations – SRMA: Four (4) SRMAs, totaling about 56,500 (Recreation Map 2) would have moderate beneficial long-term impacts through restrictions imposed to protect resource values and reduce user conflicts.

Special Designations – WSR: Recommending 22 miles of eligible river as suitable for recreational classification under the National W&SR Act (Recreation Map 11) would have moderate short- and long-term beneficial impacts on river-based recreation (if it is approved by

Congress) by the mandatory protection of identified values.

Transportation: Application of the route designation criteria would be the same as discussed in Alternative A. Closing 6,400 acres along the Snake River Canyon would have moderate long-term benefits to non-motorized recreation at the local level and slight long-term adverse impacts to motorized recreation.

Vegetation – Fuels Management: Moderate short-term adverse impacts from treating 70,000 acres (15% of the NCA) would occur primarily in Management Areas 1 and 2. Successfully treated areas would moderately enhance recreational experiences and opportunities in the long-term at the landscape level.

Vegetation – Restoration: Moderate short-term adverse impacts from treating 50,000 acres (10% of the NCA) would occur primarily in Management Areas 1 and 2. Successfully treated areas would moderately enhance recreational experiences and opportunities in the long-term at the landscape level.

Visual Resource Management: Since there would be no areas classified as VRM Class I or II, there could be significant changes allowed to the landscape, but these changes would cause few if any impacts to recreation, other than periodic limits on use of areas affected by restoration projects.

Conclusion – Recreation: Alternative B

Insufficient recreational developments would result in moderate adverse landscape wide impacts over the long-term; however the two new sites would have moderate long-term beneficial impacts at the local level. Vegetation treatments, restrictions on military training in the Bravo Area, and the application of route designation criteria would have slight to moderate long-term benefits at the landscape level. Livestock and/or motorized vehicle closures would have moderate long-term benefits at the local level to river-based recreation. Motorized vehicle closures would have slight



long-term localized adverse impacts to motorized recreation. The objectives and DFC would be met.

Recreation: Alternative C

Idaho Army National Guard: Military activities and associated impacts to soils and vegetation in the OTA would cause slight short- and long-term adverse impacts to visual quality for those seeking a more primitive and undisturbed recreational experience. Restrictions on maneuver training in the 22,300 acre Bravo Area would significantly decrease military activity, which would have slight beneficial short- and long-term beneficial impacts to dispersed recreation.

Livestock Grazing Management: There would be slight localized beneficial short- and long-term impacts associated with no livestock grazing on public land. Recreation user conflicts associated with livestock use would be eliminated. For visitors who enjoy viewing livestock on public land, this opportunity would be lost. Slight localized short-term adverse impacts to recreation would result from unmaintained fences that would impede access and cause visual intrusions for dispersed recreational activities.

Recreation – Campfire Restrictions: Impacts would be the same as those described under Alternative B.

Recreation – Facilities Development: Impacts to recreation would be similar to those described in Alternative B. Dedication Point and Cove Recreation Site would be maintained and expanded as needed, which would have the slight beneficial short-term effect of meeting recreational expectations and opportunities at these sites. Four additional sites would be developed, with Kuna Butte, Initial Point, Celebration Park Annex, and Three Pole being possible locations, which would have the slight beneficial long-term effects of meeting expected future demands for developed recreation facilities at the local level.

Recreation – Shooting Restrictions: Impacts would be the same as described under Alternative B.

Special Designations – SRMA: Because of the proposed NCA boundary realignment, the 6,300-acre Owyhee Front SRMA would no longer be part of the NCA, but would be managed by the Owyhee Field Office under the Owyhee RMP (USDI 1999b). This would be slightly beneficial at the local level to motorized vehicle recreation by allowing the existing use to continue in the long-term. The designation of four SRMAs, totaling 56,500 acres, would have the same impacts discussed under Alternative B, but the impacts would be smaller in scope.

Special Designations – WSR: Recommending 49 miles of eligible river as suitable for recreational classification under the National W&SR Act (Recreation Map 12) would (if approved by Congress) have a slight beneficial long-term impact on recreation by managing the area to protect recreational values.

Transportation: The 13,200 acres closed to motorized vehicles would result in moderate short- and long-term adverse impacts to motorized recreation and moderate beneficial short- and long-term impacts to non-motorized recreation activities. Although the acres limited to designated routes would be the least of all the alternatives, the differences are negligible, and the impacts would be the same as those described for Alternative B.

Vegetation – Fuels Management: About 100,000 acres (21%) of the NCA would be treated to reduce hazardous fuels and to maintain existing fuel breaks. In the long-term, a general reduction in annual and invasive plants and an increase in perennial species would have a slight landscape-wide beneficial long-term impact on dispersed recreation.

Vegetation – Habitat Restoration: About 130,000 acres (27%) of the NCA would be restored. In the short-term, adverse impacts to existing scenic quality and recreation opportu-



nities would be slight and relatively small acreages would be unavailable to recreational use at any given time as a result of public use closures imposed to allow recovery of treated areas. Over the long-term, because it is anticipated that an additional 15,000 acres of shrubs would be lost to wildfire during the same period that 130,000 acres are being restored, scenic quality, the abundance and diversity of recreation opportunity, and the quality of recreation experiences would benefit moderately over the long-term at the landscape-level.

Visual Resource Management: Impacts would be the same as described for Alternative B.

Conclusion – Recreation: Alternative C

Vegetation treatments, restrictions on military training in the Bravo Area, and elimination of livestock grazing would all have slight landscape-wide long-term beneficial impacts. Four additional recreation facilities would have slight long-term localized beneficial impacts by meeting the increasing recreational demand. The recommendation for W&SR designation would have slight localized long-term benefits. The 13,200 acres closed to motorized recreation would have the slight long-term beneficial impact of meeting a greater range of recreational opportunities but would also have slight long-term adverse impacts to motorized recreation. The objectives and DFC would be met.

Recreation: Alternative D

Idaho Army National Guard: Impacts would be the same as Alternative B except the area would be smaller, thus the localized impact would be slight over the long-term.

Livestock Grazing Management: The impacts to recreation would be similar to those described under Alternative A. However, the intermittent grazing of 3,400 acres on Kuna Butte would provide slight short-term very localized adverse impacts to recreation from increased conflicts between livestock and recreation users, since the current grazing permit-

tee has used this area only one time in the past 25 years.

Recreation – Campfire Restrictions: Impacts would be the same as those described under Alternative B.

Recreation – Facilities Development: The impacts would be the same as alternative B except the three additional sites would provide greater localized benefits in the long-term.

Recreation – Shooting Restrictions: Impacts would be the same as Alternative A

Special Designations – SRMA: Impacts would be the same as described under Alternative C.

Special Designations – WSR: Determining the river as not suitable and not recommending the river segments for National W&SR designation would have similar impacts to those described under Alternative A, provided that outstandingly remarkable values and free flowing conditions would continue to be protected on 49 miles of the Snake River.

Transportation: Limiting or closing areas to motorized vehicle use would have the same impacts as described for Alternative B, with the exception that there would be about 2,000 fewer acres closed under Alternative D. This localized difference would have negligible short- or long-term impacts landscape-wide.

Vegetation – Fuels Management: Impacts would be the same as described for Alternative C.

Vegetation – Restoration: Impacts would be the same as described for Alternative C.

Visual Resource Management: Areas classified as VRM Class II along the canyon would preserve the high quality vistas present there. There could be significant changes allowed to the landscape in VRM III and IV areas, but these changes would cause few if any impacts to recreation, other than periodic limits on use of areas affected by restoration projects.



Conclusion – Recreation: Alternative D

The seven recreation facilities would have moderate localized long-term beneficial impacts by meeting the future recreational demand. Restrictions on military training in the Bravo Area would have slight long-term beneficial impacts. The intermittent grazing of the Kuna Butte area would have slight short-term adverse impacts to recreation when it is being used for grazing. The amount of vegetation treatments would result in slight short-term localized adverse impacts and slight long-term landscape-wide beneficial impacts. The objectives and DFC would be met.

4.2.17 Renewable Energy

Renewable energy is not an issue in the NCA. See Lands and Realty Section 2.2.13 in the Affected Environment Chapter 2 and Alternatives considered but not analyzed in Chapter 3.

4.2.18 Transportation

Summary

All four alternatives would meet their identified objectives. Alternative A would place the greatest emphasis on motorized access to the NCA. Alternatives B, C, and D would still place a large emphasis on motorized recreation opportunities, but would place more emphasis on providing additional areas for non-motorized opportunities. Alternative C would provide the greatest diversity of recreation opportunity.

Assumptions

- Under all alternatives, vehicle access would be preserved to most areas of the NCA.
- Designation of individual routes would not be a part of this RMP process; however, area designations of open, limited or closed would be made, as would the criteria for making future individual route designations.
- The route designation process would result in the loss of some routes, but could also result in the addition of some new routes.

- Except for the OTA Impact Area, which is recommended for withdrawal to the DoD, routes designated for use by the IDARNG would be considered part of the general transportation system, and would be available for general public use.
- The IDARNG would be authorized to conduct off-road maneuver activity that would not be considered part of the transportation system.
- The Impact Area would remain closed to general public access unless individuals are accompanied by IDARNG staff.
- The Route Designation process only affects public lands (not State or private) and all major access roads would remain open.
- Short-term impact would be 4 years or less based on the minimum time needed to protect vegetation treatment projects. Long-term is greater than 4 years.

How Activities Affect Transportation Management

Direct Impacts

Sensitive Resources (SSS and Cultural) Management Activities

- The existence of SSS habitat or cultural resources would have direct long-term adverse impacts on route locations and designations by closing routes or restricting their use in some manner.
- Transportation Area Designations and Route Designation Criteria.

Transportation Management Activities

- Existing land use plans designate no “open” areas in the NCA. All areas outside of the OTA Impact Area are limited to designated routes, but vehicles are required to remain on existing routes until the route designation process is complete.
- Areas identified as “limited to designated” provide the greatest opportunity for a range of recreational experiences and transportation needs. The application of the route designation criteria to make these determinations could have short-term adverse impacts; however, because



of the increased flexibility, there could be long-term landscape-wide beneficial impacts.

- Areas identified as “closed” have high adverse impacts on transportation. The extent of these impacts would be based on the size of the area closed.
- Application of the route designation criteria within the limited to designated areas will have slight adverse impacts in or around areas containing sensitive resources but will have slight beneficial long-term impacts by eliminating conflicts and providing a range of transportation opportunities.

Vegetation – Habitat Restoration/Fuels Management Activities

- Habitat restoration and fuels treatment projects could have a direct short-term impact on the transportation network and public access through road closures that are implemented for periods of 4 to 10 years to optimize the success of the seeding or replanting.

Indirect Impacts

Recreation Activities

- Recreation Opportunity Spectrum (ROS) identifies a variety of recreational opportunities and experiences. As a part of the ROS classification, route densities are identified in order to provide for motorized and non-motorized experiences. The greater density provides greater transportation opportunities resulting in short- and long-term beneficial impacts.

Utility Corridors Management Activities

- Designation of utility corridors would focus major utility projects within a confined corridor, which would have beneficial short- and long-term impacts on the transportation system by supporting continued vehicle access.

Visual Resource Management (VRM) Activities

- VRM classifications can be used to protect and conserve visual resources by constraining development and/or user-related impacts on the environment. As such, more protective classifications (Classes I and II) could have direct and indirect adverse impacts on the transportation network by restricting locations where roads and trails could be constructed and maintained. While VRM Classes I and II constrain flexibility in the placement of new roads and trails, and associated facilities like loading ramps, signs, kiosks, etc., VRM Classes III and IV provide managers the most latitude to create a transportation system that serves a variety of needs, including increasing recreation pressure. These less restrictive classifications, however, also result in affected areas being more vulnerable to the introduction of discordant structures or activities on the landscape that detract from visual integrity or scenic quality, and thus degrade the aesthetic experience of some users of the transportation network.

Discussion of Impacts by Alternative

Transportation: Alternative A

Sensitive Resources (SSS and Cultural) Management Activities: The identification of sensitive resources and the application of the route designation criteria as they relate to SSS habitat and cultural resources would entail some restrictions on use to protect the affected resource. As such, routes could be closed or limited in some fashion, which would reduce public access opportunities resulting in slight long-term adverse impacts at the landscape level.

Transportation Area Designations and Route Designation Criteria Management Activities: Approximately 1,600 acres are identified as closed which would have slight localized adverse impacts over the short- and long-term. The remaining area is limited to designated routes which would have moderate to high landscape-wide benefits.



Utility Corridors: There would be no impact from the existing utility corridor, which is in an area that negligibly benefits the transportation network.

Vegetation – Habitat Restoration/Fuels Management Activities: Up to 20,000 acres of habitat restoration and fuels management projects could be closed or have other restrictions for vehicle use for periods of 4 to 10 years in order to optimize the success of the seedings. Depending on their size, location and duration of closure, they could have slight to moderate short- or long-term localized impacts. Most of these restrictions would be in Management Area 1 or 2, an area that has the highest dispersed recreation use and need for access.

Visual Resource Management Activities: This is the only alternative containing VRM Class I (10,300 acres), which would provide the least flexibility in designing a transportation system to protect natural and cultural resources but provides the greatest protection of natural resources from motorized vehicle use. This would have a slight to moderate long-term localized impact to transportation. About 452,000 acres (93%) of the NCA is designated as VRM Class III or IV, so aside from the 2% of the area protected as VRM Class I, and the 21,400 acres (4%) of the NCA protected under VRM Class II, most of the area is not adversely impacted by VRM designations. There are no impacts to transportation from VRM Classes III or IV.

Conclusion – Transportation: Alternative A
The designation of approximately 1,600 acres (less than 1% of the NCA) as closed to motorized vehicle use provides for moderate to high localized long-term motorized vehicle opportunities with moderate to high adverse impacts to non-motorized vehicle activities. The area identified as limited to designated routes (431,200 acres) would have highly beneficial landscape-wide impacts. Designating (10,300 acres or about 2% of the NCA) as VRM Class I would result in moderate to high adverse localized impacts over the long-term. Vegetative treatments would result in short-term localized

adverse impacts. The objective and DFC identified under Recreation (See Section 4.2.16.) would be met.

Transportation: Alternative B

Sensitive Resources (SSS and Cultural) Management Activities: Impacts would be the same as described for Alternative A.

Transportation Area Designations and Route Designation Criteria Management Activities: Approximately 6,400 acres are identified as closed which would have slight localized adverse impacts over the short- and long-term. The remaining area is limited to designated routes (426,400 acres), which would have moderate to high landscape-wide benefits.

Utility and Communication Corridors: The existing utility corridor would be retained, and a new corridor would be designated north of, and parallel to, the Snake River Canyon. New access roads could be created along utility lines within the new corridor to allow for maintenance, and if these new routes were to remain open, they would provide the public with additional recreational access opportunities resulting in moderate long-term beneficial localized impacts.

Vegetation – Habitat Restoration/Fuels Management Activities: The 120,000 acres affected by habitat restoration and fuels management projects would result in moderate adverse localized impacts due to potential loss or restrictions on public access for periods of 4 to 10 years. There would be no long-term beneficial impacts to the public use of the area following restoration.

Visual Resource Management Activities: The entire area is VRM Class III or IV, which would not impact transportation.

Conclusion – Transportation: Alternative B
The 6,400 acres designated as closed and 120,000 acres of vegetation treatments would result in slight long-term landscape-wide benefits by reducing the number of routes, and



increasing non-motorized opportunities. The utility corridors would have moderate landscape-wide long-term beneficial impacts. The objective and DFC would be met.

Transportation: Alternative C

Sensitive Resources (SSS and Cultural) Management Activities: Impacts would be the same as described for Alternative A.

Transportation Area Designations and Route Designation Criteria Management Activities: Approximately 13,200 acres are identified as closed which would have moderate to high localized adverse impacts over the short- and long-term. The remaining area (419,600 acres) is limited to designated routes, which would have moderate to high landscape-wide benefits.

Utility and Communication Corridors: The existing utility corridor would be retained, and the new corridor south of and parallel to Highway 78 would be added. The impacts would be the same as Alternative A because this corridor is near a major highway and does not provide additional transportation opportunities.

Vegetation – Habitat Restoration/Fuels Management Activities: The impacts would be the same as described for Alternative B, except that the 230,000 acres affected by these projects would make the impacts to the transportation system landscape-wide. There would be no long-term impacts to transportation.

Visual Resource Management Activities: Although no areas are in VRM Class I, this alternative designates 39% of the NCA (187,200 acres) in VRM Class II, which would provide a moderate level of protection to the more sensitive and scenic areas along the Snake River and C.J. Strike Reservoir, and in the areas of highest recreational use in the western end of the NCA, while still giving some flexibility in designing a route system. The rest of the NCA would be classified as either VRM Class III or IV, which would have no effect on transportation.

Conclusion – Transportation: Alternative C

The 13,200 acres designated as closed and 230,000 acres of vegetation treatments would result in slight long-term landscape-wide adverse impacts by reducing the number of routes. The utility corridors would not impact the transportation system. The objective and DFC would be met.

Transportation: Alternative D

Sensitive Resources (SSS and Cultural) Management Activities: Impacts would be the same as described for Alternative A.

Transportation Area Designations and Route Designation Criteria Management Activities: Approximately 4,400 acres are identified as closed which would have slight localized adverse impacts over the short- and long-term. The remaining area is limited to designated routes (428,400 acres), which would have moderate to high landscape-wide benefits over the long-term.

Utility and Communication Corridors: Impacts would be the same as identified in Alternative A.

Vegetation – Habitat Restoration/Fuels Management Activities: Impacts would be the same as described for Alternative C.

Visual Resource Management Activities: The impacts would be the same as described in Alternative C; however, there would be fewer acres identified as VRM Class II and more acres as VRM Class III.

Conclusion – Transportation: Alternative D

The 4,400 acres designated as closed would have slight localized adverse impacts and the 428,400 limited acres would have moderate to high landscape-wide beneficial impacts. Approximately 230,000 acres of vegetation treatments would result in moderate to high long-term landscape-wide adverse impacts by reducing the number of routes. The objective and DFC would be met.



4.2.19 Utility and Communication Corridors (Land Use Authorizations)

(See Lands and Realty Section 4.2.13)

4.2.20 Wildland Fire Ecology and Management

See Vegetation Section 4.2.8

4.2.21 Special Designations

See Recreation Section 4.2.16

4.2.22 Social and Economic Conditions

4.2.22.1 Economic

Summary

All alternatives would meet their identified objectives and the DFC. All alternatives would have a negligible benefit to the regional economy by potentially providing a slight increase in jobs and income. The increase would be primarily associated with recreation and vegetation treatments and would be greatest in Alternatives C and D. With the exception of Alternative A, there would be slight job losses in the military and livestock sectors; however, these would be off-set by gains in other sectors.

Assumptions

General Assumptions

- The NCA does not have a market-based economy; therefore, the direct and indirect impacts are described within a Region where workers and users live (Ada, Canyon, Elmore and northern Owyhee Counties).

Idaho Army National Guard

- Military spending associated with the OTA is a function of the amount of training that can potentially be conducted (area available), the amount of training that is actually conducted, and the types of training that can be conducted (maneuver, ranges, administration and support sites).
- A portion of the support and administrative personnel at Gowen Field are indirectly linked to operations at the OTA. These include personnel associated with

maintenance, site administration, environmental monitoring, scheduling, and related personnel operations.

- Military spending for environmental monitoring, road maintenance and habitat rehabilitation is directly linked to military use of the area. Military funds for habitat rehabilitation and monitoring would not be used outside the OTA boundary.
- Concentrating military operations would result in scheduling conflicts for military activities during periods of high demand.
- If the OTA is reduced or if acreage available for maneuvers is reduced, a “substitution effect” would occur. The military would transfer some training from restricted areas to other portions of the OTA. However, this substitution effect is not linear, because not all training could be transferred to the remainder of the OTA.
- Most of the manpower necessary to operate the OTA resides in Southwest Idaho.
- Military personnel would purchase goods and services in the regional economy with a spending pattern similar to other consumers.
- Total economic impact of military operations includes both the direct impact of military spending and employment and the indirect and induced impacts of military spending. The induced impact is the multiplier effect of consumption spending associated with the purchases by military personnel and other government employees required to operate the OTA.

Livestock Grazing

- Actual livestock use would vary from year to year depending on weather and forage conditions.
- Permittees would try to replace lost BLM AUMs rather than reduce herd size.

Recreation

- The proximity of the NCA to the Boise-Nampa-Caldwell area creates a strong demand for dispersed recreation activity.



The demand for interpretive activities and developed campgrounds and picnic areas is greater than the current supply.

Demand for outdoor recreation would reflect population growth in the region.

If outdoor recreation opportunities are limited in the NCA, a “substitution effect” would be evident. This “substitution effect” would be manifested by visitors substituting activities at other similar areas in the region for NCA visits, and in some cases residents would spend their leisure dollars on other activities. A “substitution effect” of 50% was assumed for this analysis.

Most of the jobs associated with NCA recreation are in the trade and service sectors. This reflects the large proportion of visitor spending for eating and drinking services, food stores and service station.

Vegetation – Fuels Treatments

- Annual acres programmed for fuels treatment would be consistent over the planning period.
- Approximately 40% percent of the expenditures for fuels treatment operations would be labor costs.
- The purchasing pattern (industrial inputs) for fuels treatment will be similar to inputs for other agriculture (miscellaneous crops).
- A significant portion of the seed used for fuels treatment would be purchased from suppliers outside the region.
- Fuels treatment costs would be stable (when adjusted for inflation) throughout the planning period.
- Estimated average cost of \$200 per acre for fuels treatment work (based on 2005 costs).

Vegetation – Restoration

- Annual acres programmed for restoration would be consistent over the planning period; however budget allocations may vary from year to year.

- Restoration would be labor intensive with approximately half of the expenditures for payroll.
- The purchasing pattern (industrial inputs) for restoration would be similar to inputs for other agriculture (miscellaneous crops).
- Estimated cost of \$150 minimum per acre for restoration work (based on 2005 costs).
- Short-term impacts would be 0–5 years with long-term impacts greater than 5 years because of the dynamic nature of socio-economics.

How Activities Affect Economic Resources

Direct Impacts

Idaho Army National Guard Activities

- IDARNG training capabilities are dependent on the availability of controlled sites within the OTA; therefore, limiting the types or areas available for training (maneuver, artillery, foot, etc.) would have short- and long-term adverse impacts. In contrast, expanding the types or areas available for military training would have beneficial short- and long-term direct impacts.
- The primary economic benefits of military spending are from payroll, maintenance, and construction. Changes (reductions or increases) in military spending would impact the local economy.
- Military specific hardware is acquired via contracting arrangements that result in most of the equipment related spending (military hardware) going outside the Region.

Livestock Grazing Management Activities

- Changes in livestock season or duration of use that result in a reduction in actual use would cause short- and long-term adverse impacts to permittees.

Recreation Management Activities

- Closures or restrictions could adversely affect recreational opportunities by reducing the overall area available for a specific



use. However, the quality of other recreational experiences could be enhanced and user conflicts could be reduced.

- Construction of campgrounds, interpretive facilities, and other developed recreation facilities would enhance recreational opportunities and could benefit the regional economy.

Vegetation – Fuels Management Activities

- BLM budget allocations for fuels treatment are the key variable in the fuels treatment model. Future budgets of Federal agencies are difficult to predict and direct expenditures for fuels treatment could vary greatly.

Vegetation – Restoration Activities

- Personnel and equipment would be hired or contracted regionally but materials would be purchased competitively to conduct restoration efforts and most likely would not come from the region.

Indirect Impacts

Idaho Army National Guard Activities

- Increasing travel distances, planning requirements, infrastructure development, and other training related expenditures would have an adverse short-term impact on the IDARNG. These short-term impacts would reduce the amount of time available for training and reallocate resources (funds, man-power, equipment, etc.) that would otherwise be used for training activities.
- Reducing the types or area available for training would have a long-term, adverse impact on the IDARNG ability to train by reducing Federal or state funding.
- Site-specific training restrictions and resource expenses that are not directly related to training, such as noxious weeds and rehabilitation programs, could have a beneficial long-term impact on the IDARNG ability to train. By imposing voluntary and involuntary restrictions in key training areas (shrub habitat, special status plant species, cultural sites, etc.)

and allocating resources to mitigate training related impacts, the IDARNG limits the overall adverse affects to resources within the OTA to levels commensurate with the NCA Legislation (Argonne National Laboratory 2004).

Livestock Grazing Management Activities

- Reductions in actual use AUMs could have a significant impact on the viability of livestock operations that are dependent upon NCA grazing.
- Increasing private forage inputs to compensate for lost AUMs increases marginal costs and reduces net ranch income. Some ranching households may have other sources of income to supplement ranch income, which could help compensate for lost income from reductions in AUMs. If net ranch income is driven below the minimum level sufficient to maintain operations, these ranches would likely fail or be converted to “hobby ranch” operations.
- Increasing costs could result in reducing the size of ranch operations and associated labor inputs.
- Ranches in a stronger financial position could purchase weaker operations and consolidate units into more efficient ranch operations. Private lands might be concentrated into other operations or be shifted out of grazing into hobby ranching, development, or other land uses. The net effect would be a reduction in the number of ranches and ranching income and a subsequent increase in other income such as development and construction.

Recreation Management Activities

- Habitat restoration would improve recreational experiences by providing more natural settings for dispersed recreation.
- Visitation generates employment and earnings in retail businesses, hotels and motels, eating and drinking places, and other tourist services. Direct spending then generates rounds of re-spending (i.e., multiplier effects). Economically, Boise dominates the overall region and could be expected to experience a large share of these multiplier



effects. Most of this income is associated with the retail trade and service sectors, where direct spending for food, gasoline, lodging, and other visitor direct spending is felt.

Vegetation – Fuels Management Activities

- Grazing for fuel treatments would be separate from permitted use and would be done through contracting.

Vegetation – Restoration Activities

- Closure of treated areas during the establishment period could adversely affect recreational users and livestock permittees over the short-term.
- Restored areas could improve the quality of recreation experiences and would stabilize annual forage production over the long-term.

Discussion of Impacts by Alternatives

Economics: Alternative A

Idaho Army National Guard Activities: The area available for training, amount of training conducted, and number of support personnel would remain stable. Therefore, there would be no change in payroll, construction, operations, and maintenance expenditures resulting in no change in the social and economic conditions. The IDARNG would continue to have a moderate long-term beneficial impact on the local economy. Total employment linked to OTA operations is estimated at 85 direct jobs, another 560 military and contractor jobs linked indirectly to OTA operations, and 297 jobs linked through the multiplier effect of military spending. The overall impact of OTA operations would be about \$26 million in earnings.

Livestock Grazing Management Activities:

There would be slight, short- and long-term benefits to social and economic conditions. The 28,000 AUMs of annual livestock use accounts for 17 jobs in the Region or about 2% of all range cattle employment in Southwest Idaho. This constitutes about 0.01% of total employment and 0.003% of all income.

Recreation Management Activities: There would be slight, short- and long-term benefits to social and economic conditions. Annual spending attributable to recreation use would amount to approximately \$7.3 million regionally. Estimates of the total impact of NCA visitor spending including direct, indirect, and induced spending indicate that visitors to the NCA would account for about 135 jobs in Southwest Idaho. Most of this revenue would be associated with the retail trade and service sectors, where direct spending for food, gasoline, lodging, and other visitor direct spending is felt. The total impact of NCA recreation on the four-county regional economy would amount to roughly 0.04% of all jobs, and 0.03% of all income. That relatively more jobs are created than earnings is simply a reflection of the generally lower than average earnings in recreation related sectors.

Vegetation – Fuels Management Activities:

There would be negligible, short- and long-term benefits to social and economic conditions. Direct expenditures (average annual expenditures) of \$50,000 would generate about two jobs in the region.

Vegetation – Restoration Activities:

There would be negligible short- and long-term benefits to social and economic conditions. An estimated two to three jobs in the region would be supported by restoration work. NCA restoration generated about two jobs in the region.

Conclusion – Economics: Alternative A

There would be no changes in employment (1,100 jobs) and no changes in associated income. The objectives and DFC would be met.

Economics: Alternative B

Idaho Army National Guard Activities: There would be a slight long-term adverse impact to social and economic conditions. Military operations in the OTA would be reduced by one percent resulting in a loss of about 7 employees associated with training. Total employment impacts with the multiplier effect would



result in the loss of about 14 jobs with earnings of about \$400,000. The majority of the jobs lost would be in the government sector.

Livestock Grazing Management Activities: Livestock grazing operations show about a 15% short-term decrease from current management primarily related to vegetation treatments. There would be a loss of 3 jobs and an \$80,000 decrease in livestock related earnings.

Recreation Management Activities: About 4 jobs with an associated income of \$90,000 would be created by recreation spending. This change would not be perceptible in the Region's economy (less than .01% change).

Vegetation – Fuels Management Activities: Twelve jobs would be created with an associated payroll of about \$300,000. Most of the jobs would be government and contract employees. Employment (0.004% increase) and economic (0.003% increase) benefits would be slight over the long-term.

Vegetation – Restoration Activities: Eleven jobs would be created with an associated payroll of about \$300,000. Most of the jobs would be in contract employees performing restoration work. There would be a slight increase in the Regional economy. Employment changes would produce a 0.004% increase in jobs, while income in the Region would show a similar very small percentage increase.

Conclusion – Economics: Alternative B

There would be a slight beneficial impact on the regional economy. Combined impacts of recreation, military, livestock operations, and vegetation treatments would result in a total increase of approximately 16 jobs or a 1% change from current conditions in NCA related jobs. The impact would be negligible (0.005%) in the region. Change in earnings would also be negligible, showing an increase of about \$400,000 in regional earnings. This is a 1% change in NCA generated earnings and a 0.004% change in earnings in Southwest Idaho. The objectives and DFC would be met.

Economics: Alternative C

Idaho Army National Guard Activities: There would be slight to moderate long-term adverse impacts to social and economic conditions from the reduction of off-road maneuver capability on over 16% of the OTA. The resulting scheduling conflicts and increased travel time would result in a 3% reduction in military training operations. With the multiplier effect, a total of 39 jobs linked to OTA operations and about \$1 million in associated income would be lost.

Livestock Grazing Management Activities: With 5,000 AUMs being maintained in the OTA Impact Area and no livestock grazing in the remainder of the NCA, there would be an approximate 83% reduction in actual use. This would lead to the loss of an estimated 14 jobs (0.005%) with a total payroll of about \$250,000 (0.003%). Although the effects on livestock grazing would be very noticeable, the adverse regional economic impacts would be slight. Ranch earnings are probably a better measure of the role of NCA livestock grazing. Ranch earnings of about \$150,000 would be lost as a result of the 83% reduction. If ranchers attempted to substitute other grazing for NCA grazing, it would cost over \$300,000 per year to purchase other AUMs at current market rates.

Recreation Management Activities: There would be a 25% increase in recreation activity and associated spending with an increase of approximately 32 jobs. This would be a slight benefit in the regional economy. Increased employment linked to recreation spending would probably be primarily in the Region and would affect the retail trade area sector, particularly sales of gasoline, recreational vehicles and food services, and the hospitality sectors.

Vegetation – Fuels Management Activities: There would be approximately 13 additional jobs in the Region with associated earnings of about \$300,000 resulting in a 0.004% increase in employment and 0.03% increase in earnings.



Vegetation – Restoration Activities: There would be approximately 29 additional jobs in the Region with associated earnings of about \$800,000 resulting in a 0.01% increase in employment and 0.08% increase in earnings.

Conclusion – Economics: Alternative C

At the Regional level, there would be a slight to moderate adverse economic impact on military activities and livestock operations. There would be a slight beneficial impact from recreation-related spending. Spending associated with vegetation treatments would be substantial, but would only have slight benefits at the Regional level. There would be a negligible increase in jobs. All sectors would see some increase in jobs with the exception of IDARNG and livestock management. The objectives and DFC would be met.

Economics: Alternative D

Idaho Army National Guard Activities: There would be a decrease of 9 jobs (0.003%) in employment linked to military operations in the OTA. Regional long-term economic impacts would be negligible.

Recreation Management Activities: The economic impacts would be the same as described in Alternative C.

Livestock Grazing Management Activities: Livestock operations would show a temporary decrease (up to 30%) in actual use (8,500 AUMs) resulting in a loss of 5 jobs and about \$100,000 in income. This would result in a slight to moderate adverse impacts to NCA permittees in the short-term and negligible adverse impacts to the Regional economy.

Vegetation – Fuels Management Activities: Impacts would be the same as identified in Alternative C.

Vegetation – Restoration Activities: Impacts would be the same as identified in Alternative C.

Conclusion – Economics: Alternative D

There would be a slight adverse economic impact on military activities and livestock operations. There would be a slight beneficial impact from recreation-related spending. Spending associated with vegetation treatments would be substantial, but would only have slight benefits at the Regional level. There would be a negligible increase in jobs. All sectors would see some increase in jobs with the exception of IDARNG and livestock management. The objectives and DFC would be met.

4.2.22.2 Environmental Justice

Actions proposed under the alternatives would not cause disproportionate adverse human health or environmental impacts to minority and/or low-income populations. Restoration programs associated with all the alternatives would occur within the NCA and would not affect populations in nearby communities. NCA operations and permitted uses, including tribal treaty rights, would continue similar to current conditions, including recreation, grazing, and hunting in permitted areas. All areas, except the OTA Impact Area would remain available and open to all ethnic groups and income levels, and no action would displace users to low-income or ethnically sensitive areas. For these reasons, environmental justice was dismissed as an impact topic in this document. Any adjustments in the boundary of the NCA and/or a reduction in public lands available for tribal use would not result in a reduction in natural resource values available for tribal use. Also see Economic Conditions Section 4.2.22.

4.3 CUMULATIVE IMPACTS

Cumulative impacts result when the effects of an action are added to or interact with the combined effects of all other ongoing actions in a particular place and within a particular time. While impacts can be differentiated as direct and indirect, and short- and long-term, cumulative impacts consider the compounding effects of all actions over time. Thus, the cumulative impacts of an action can be viewed as the total combined effects of all activities



on a particular resource, ecosystem, or human community, no matter what entity (Federal, non-Federal, or private) is taking the actions.

4.3.1 Description of this Section

The cumulative impacts section is organized to first provide a general description of regional influences. These are factors outside of the NCA that when considered with the management actions identified in each alternative would create either beneficial or adverse cumulative impacts that should be analyzed. This discussion is followed by the analysis of cumulative impacts for each resource and resource use that had adverse impacts identified in the resource discussions under environmental consequences (4. 0.)

In an effort to diminish redundancy and repetition, the regional influences discussion is designed to provide detailed information regarding issues that will affect a majority of the resources within the NCA. Regional influences include population growth and expansion, increased recreational activity, invasive and noxious plant species, fire and fuels management, SSPs, livestock grazing, and lands and realty actions.

Following the general discussion of regional influences is the analysis of cumulative impacts, divided by resource, discussing the cumulative impacts surrounding each resource in the NCA. Each discussion begins with a description of the region of influence for that resource followed by a discussion of past and current trends, as well as future anticipated trends. Past and current trends describe the current regional status of the resource being discussed, as well as noteworthy events from the past that contributed to the current situation. Future anticipated trends discuss the po-

tential outcomes of current trends in the foreseeable future. Following the past, current and future trends section is a description of cumulative impacts for each of the alternatives. This part of the analysis addresses the region wide affect that management proposed for the NCA could have on the resource being discussed.

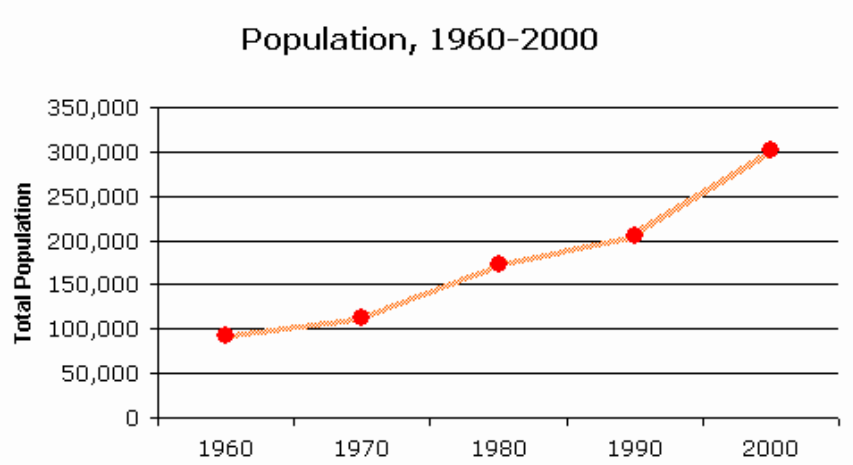
4.3.2 Regional Influences

Population Growth

The latest census ranked Idaho fourth nationally for population growth, which has occurred primarily around the urban centers in Ada and Canyon counties. The quality of life, active job market, computer science industry, abundant recreational opportunities, and close proximity to the State capital makes the region attractive for migration. According to the 2000 census, Ada and Canyon counties each experienced approximately 46% percent growth since 1990. These two counties are adjacent to the NCA and provide the greatest influence for population-related cumulative impacts. Public lands adjacent to an area that has sustained a population increase of this magnitude will logically experience higher levels of recreation, resource use, and user conflicts. Projections for the future vary greatly by demographic area. Kuna is projected to grow 13% by the year 2025, a significant amount, but less than surrounding areas. The southern demographic areas of Ada County are predicted to have huge growth, especially in the rural areas. Southeast and southwest Ada County is projected to grow between 15-21% by 2025. Southeast rural Ada County is projected to grow by 225%; southwest is projected to grow 693% by the year 2025. These extreme growth areas in Ada County are the closest population areas to the NCA

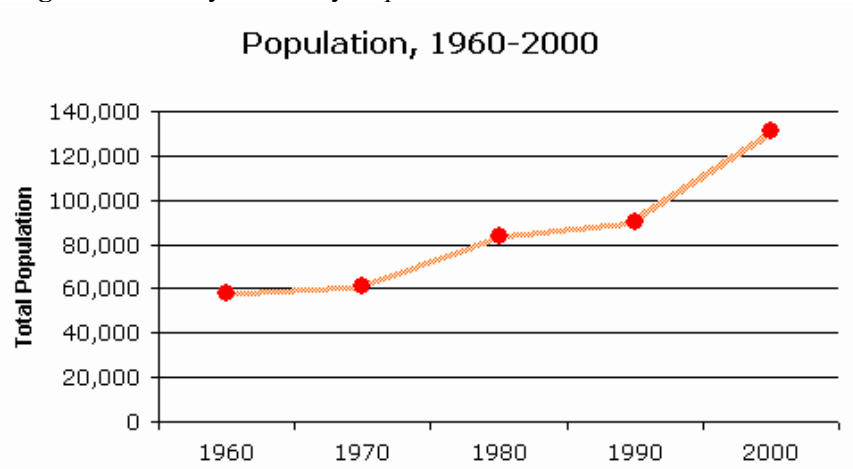


Figure 4.1. Ada County Population Growth.



Source: US Bureau of the Census 2001

Figure 4.2. Canyon County Population Growth.



Source: US Bureau of the Census 2001

Recreation

The natural beauty and outstanding recreation opportunities draws thousands of visitors to Idaho annually. As the United States (U.S.) and Idaho populations grow, so too does demand for outdoor recreation opportunities. In addition, changing industries and life-styles in Idaho and the surrounding region are contributing to a shift in natural resource use and management away from traditional product-oriented industries to more amenity-based industries. Tourism is the fastest growing economic activity in Idaho, and will likely inten-

sify over the next 5 to 10 years based on current population estimates (IDPR 2003). While outdoor recreational activities and tourism can help many rural communities diversify or supplement a reduction in historic consumptive, industrial-based activities, proactive management will be needed to minimize the social and environmental costs associated with increased non-consumptive uses. Maximizing benefits while minimizing or mitigating the costs to natural resources is vital to the sustainability and health of these communities.



The 2003-2007 Idaho Statewide Comprehensive Outdoor Recreation and Tourism Plan (SCORTP), developed under the direction of the Idaho SCORTP Task Force (IDPR 2003), ranked the relative importance of 19 issues associated with outdoor recreation. Idahoans ranked the following as their top 10 issues:

1. Protecting water quality
2. Protecting existing access to public lands
3. Protecting natural resources on public lands
4. Educating youth about natural resources and the environment
5. Controlling invasive species
6. Educating adults about natural resources and the environment
7. Providing recreation safety instruction to youth
8. Providing outdoor recreation education for youth
9. Providing access for the disabled
10. Rehabilitating outdoor recreation facilities

In addition to these issues, several key outdoor activities have increased appreciably in Idaho and are likely to continue to increase in the future (Cordell *et al.* 2004; IDPR 2003). These activities were also found to be more prevalent in Idaho and other rural states than the rest of the nation as a whole. They include, but are not limited to motorized vehicle use, hunting, and water-based recreation. A number of other activities, including non-pool swimming, canoeing, and visiting a beach or waterslide are generally associated with water-based activities and were therefore included (Cordell *et al.* 2004). According to a national study by Cordell *et al.* (2004), the Rocky Mountain Region will see a significant demand increase for water-based activities over the next several years.

The demand for off-highway vehicle (OHV) driving has grown significantly. In 1960, when the first of the U.S. National Survey was done for the Outdoor Recreation Resources Review Commission, off-road motorized recreation was not even on the “radar” as a recreational activity. However, from 1982 to 2001, ORV use became one of the fastest growing activi-

ties in the country, growing in number of participants greater than 12 years old by over 100 percent (Cordell *et al.* 2004). Based on their survey (from Fall 1999 to summer 2000), an estimated 37.6 million people 16 years of age or older (17.6% of people that age or older) had ridden or driven motor vehicles off-road at least once in the past 12 months. That number increased to an estimated 49.6 million by fall 2003–spring 2004 (rising to 23.2% of the population).

Similarly, according to the 2003 IDPR report, Idahoans participate in more wildlife-based activities than the rest of the nation, with hunting being the number one activity. Idahoans hunt big game four times as often as the national average, and hunt waterfowl nearly six times as often. Non-consumptive wildlife activities, such as viewing animals, were also higher than the national average (IDPR 2003).

Based on current population trends, the demand for these and other outdoor recreational activities in Idaho and the surrounding region is likely to increase in the future. As a result, the region will need resources for biking, picnicking, walking, camping and family gatherings in coming years to meet population projections (IDPR 2003). Based on these estimates, a greater emphasis is likely to be placed on facilities development and management of recreational activities in order to reduce the overall potential impacts to natural resources.

Within the region of influence, vehicle travel is currently managed according to motorized vehicle use area designations, and route designations will soon be completed for the Brunau, Owyhee, and NCA Field Offices. Route designations would limit motorized vehicle use, resulting in long-term beneficial environmental impacts due to a reduction of disturbance to soils, biological crusts, and the protective vegetative cover. However, limiting cross-country travel could result in some individuals who wish to travel crosscountry being displaced to other areas, some of which are not currently being used for that purpose. This displacement would have localized adverse



impacts to natural resources in areas that are currently not being impacted.

SRMA development would generally have beneficial economic impacts within the region. These areas would help meet the expected increase in demand for recreational opportunities within the region of influence. Cumulatively, these increased recreational opportunities could decrease visitation to recreational areas located further away from the zone of influence, resulting in a localized increase of spending for fuel, food, and other travel related expenses.

A recreational designation of the Snake River under the W&SR Act would result in beneficial impacts to the region of influence. Protections offered under this Act would preserve the outstandingly remarkable recreational values of the river. Wildlife watching activities and associated spending within the region could increase as a result of the designation. Overall impacts would be less than slight.

Vegetation – Restoration

Restoration efforts on non-Federal lands outside the NCA have been historically limited to urban interface sites, rangelands used for livestock, or areas associated with special status or charismatic species (i.e., elk and deer winter habitat, slickspot peppergrass, etc.). Projects designed to restore specific components of plant communities rather than the system as a whole can alter the overall dynamics of the system and adversely affect upland vegetation. However, it can be assumed that most restoration measures would benefit degraded sites to some extent compared to no action.

Several new programs intended to restore wildlife habitat on agricultural or other altered vegetative communities on private lands could have a beneficial impacts on upland vegetation. Included in these are the Farm Security and Rural Investment Act of 2002, which has created conservation funding that focuses on environmental issues. The conservation provisions help private farmers and ranchers meet environmental challenges on their land

through direct funding and education. Other similar programs could potentially protect or enhance private lands throughout the region, which would likely have a beneficial affect on upland vegetation.

Invasive and Noxious Weeds

Noxious weed treatments in the NCA could result in cumulative benefits within the larger region of influence. Where new populations of noxious weeds were eradicated within the NCA, they would be eliminated as a possible seed source for other areas in the region, which would reduce crop losses, decrease wildlife habitat degradation, and improve recreational site quality. Overall impacts would be less than slight.

Invasive and noxious weeds are harmful, non-native plant species that damage our economy and environment by displacing ecologically or economically valuable native rangeland species or agricultural crops or threaten the integrity of streams and lakes. As international commerce and travel increases, so does the threat that unwanted species will arrive in Idaho or infest areas where they are not now established.

Over the years, Idaho, like all other states, has enacted statutes and created programs designed to prevent and manage a wide variety of invasive species. Often, these programs are administered in cooperation with various partners and range from monitoring site-specific populations to landscape-wide trends. The agencies involved in this important work include: Ada, Canyon, Elmore, Gem, Owyhee, and Payette County Weed Departments; Idaho Department of Lands; Idaho Department of Fish and Game; Idaho Department of Transportation; Idaho Power Company; private landowners; USDA Animal, Plant Health Inspection Service (APHIS); and the Lower Gem and South Fork of the Boise Cooperative Weed Management Areas (CWMAs).

In addition, the University of Idaho colleges of Agriculture and Natural Resources and the Cooperative Extension Service play important



research and educational roles. Finally, local governments, industries and their associations, various interest groups and individuals work cooperatively in control and educational efforts, often coming together in successful efforts such as cooperative weed management areas and the Idaho Weed Awareness Campaign.

The Idaho Strategic Plan for Managing Noxious Weeds was also released in February of 1999, which created Statewide Cooperative Weed Management Areas (CWMA) that developed and integrated weed management plans. These weed management programs are responsible for identifying local and regional invasive and noxious weed concerns and educating local landowners on treatments, government aids, etc. Currently there are 32 successfully functioning CWMA that cover approximately 82% of the State, including the area surrounding the NCA. This cooperative process has since lead to the establishment of the Idaho Invasive Species Council (IISC), which was established by Governor Kempthorn's Executive Order No. 2001-11. Their primary task is to "provide policy level direction and planning for combating harmful invasive species infestations throughout the State and for preventing the introduction of others that may be potentially harmful". In addition to these and other invasive and noxious weed management programs implemented by the State, and on a county-by-county basis, various Federal statutes have been put in place to combat invasive and noxious weeds as well.

Special Status Plants

In addition to regulatory and other protective measures associated with public and State lands, areas containing known SSP populations generally have greater protection, which has beneficial long-term affect to those species. Private lands have no regulations to protect SSPs; therefore, impacts to individual populations from surface disturbing activities on private lands could reduce the overall connectivity of the regional population and lead to future extinction or genetic separation. However, State and public agencies have been

working with private individuals and corporations to reduce impacts through voluntary conservation measures. These agreements could increase protection of SSS regardless of ownership, which would have beneficial regional effects.

Fire Suppression and Fuels Management

Wildfires can remove vegetative cover and reduce soil stability, which can increase erosion and sedimentation near riparian areas. The BLM maintains cooperative agreements with fire fighting organizations on lands within the region, including: IDL, USFS, Boise Fire Department, Meridian Fire Department, North Ada County Fire Department, IDARNG, Mountain Home Air Force Base and several rural firefighting departments or districts (USDI 2004b, pp 368-370).

Regardless of jurisdiction, protection of life and property is the primary focus of suppression efforts. On public lands, efforts throughout the region recognize that prevention and aggressive suppression are the most effective methods to reduce the loss of shrub steppe habitat. Areas with high resource values in the urban interface (i.e. Boise Front, Kuna, etc.) have the highest suppression priority (suppressing fires to <200 acres 90% of the time). Suppression goals in fire management units that have a relatively high proportion of remnant shrub communities (Grandview, Owyhee Front, Upper Danskin) are similar to those of the NCA (suppressing fires to <300 acres 90% of the time). In the remaining units, where degraded communities dominate, suppression goals are lower (suppressing fires to <500-4,000 acres 90% of the time). Fire suppression in slickspot peppergrass management areas are even lower, at <100 acres 90% of the time.

Beyond the urban interface, fuel breaks are the primary method used to control or reduce the size of wildfires. The majority of these are associated with transportation corridors, such as highways and railroad tracks, or to protect slickspot peppergrass and other SSS habitat. Fence-line burning is also used to reduce haz



ardous fuels, primarily Russian thistle, adjacent to roads and railroad tracks.

Livestock Grazing

By 2009, public land grazing within and outside the NCA will be managed under Idaho S&Gs (Appendix 3) for Livestock Grazing Management to enhance healthy, functioning and productive rangelands.

Where livestock operators on private lands in the region continue not to implement BMPs, riparian area vegetation and downstream water quality will continue to be adversely affected. For example, where livestock are allowed unrestricted access to streambanks, or where upland grazing increases off-site erosion and sedimentation, pollutants will be increased locally and travel downstream. Unmanaged grazing in riparian areas may also reduce streambank stability, resulting in blowouts during high run-off events and increased sediment loads that reduce water quality further downstream. Infestations of invasive plants on private lands, including noxious weeds, may become a seed source for lands elsewhere. Riparian vegetation would be adversely affected by invasion of noxious and other weed species. Riparian areas could improve where land managers install range improvements, such as fences, cattle guards, pipelines, and water developments to enable livestock use while protecting water quality and riparian vegetation.

Lands and Realty

As lands within the region are subdivided and re-zoned, access road, utility, and infrastructure development will increase. Private land development would generally be benefited by land exchanges that result in larger contiguous parcels of privately held land outside the NCA. However, because the potential for private land exchanges in the NCA is limited, region-wide impacts would be negligible.

4.4 CUMULATIVE IMPACTS BY RESOURCE AND RESOURCE USE

4.4.1 Air Quality: Cumulative Impacts

All alternatives would meet the air quality objective. Where prescribed burn activity coincides with nearby wildfire activity or agricultural burning there would be a short-term adverse cumulative impact to air quality by combined emission rates. Under all alternatives, impacts would be transitory in nature and no long-term cumulative impacts are expected.

4.4.2 Cultural and Tribal Resources: Cumulative Impacts

Region of Influence

- The area considered in this cumulative impact analysis is Ada, Canyon, Elmore, and northern Owyhee counties.

Past and Current Trends

- Most of the region has not been inventoried for cultural resources. There is potential for cultural resource occurrence in unsurveyed areas, but until surveys are completed, the presence and/or significance of resources and impacts cannot be quantified.

Future Anticipated Trends

- Human activities associated with population growth would potentially increase all types of recreational and development-related activities, which could disturb cultural resources.

Cumulative Effects

Cultural Resources: Alternative A

Surface disturbing activities associated with regional population growth and the resulting development would adversely affect cultural resources outside the NCA where there are no federal requirements for the inventory of cultural resources on private lands. In addition to surface disturbing activities, by the very nature of having more people in the area, there would be an increase in the likelihood of cultural resources being disturbed. The loss of native



vegetation, and changing viewshed could have adverse impacts on traditional cultural properties.

Cultural resource interpretation and education within the NCA is not emphasized under this alternative, which may have adverse impacts to the region's cultural resources if the public is unaware of their value and sensitivity. Increased demand for surface disturbing activities, such as road and utility rights-of-way, require cultural resource inventories prior to BLM authorizing the activity. These inventories should reduce the resulting adverse impacts to cultural resources in the NCA and would not be a factor in adverse cumulative impacts region-wide. However, with the increasing population and associated demands for use of the NCA, as well as only two developed recreation facilities, there would be increased potential for adverse impacts to cultural resources.

This alternative would not appreciably contribute to the cumulative impacts to cultural resources in the region.

Cultural Resources: Alternative B

This alternative would emphasize public education and site-specific interpretation for cultural resources more strongly than under Alternative A. This could benefit cultural resources region-wide as the public would be more aware of the sensitivity of cultural resources within and outside the NCA. It is possible; however, that site-specific interpretation could result in increased damage or vandalism to associated cultural sites.

Large-scale utility developments related to the designation of a utility corridor under this alternative could adversely affect cultural resources in the NCA. However, by focusing major region-wide utility developments to a confined corridor, associated soil disturbance and overall region-wide cumulative impacts could be reduced.

There would be a slight positive impact to cultural resources as a result of education and interpretation programs informing people about the importance and sensitivity of cultural resources.

Cultural Resources: Alternative C

NCA management would continue to educate the public about the value and sensitivity of cultural resources, but interpretive projects would not be implemented at a site-specific level. This would benefit cultural resources region-wide by raising public awareness about the importance and sensitivity of cultural resources, but would not entail the potential site-specific impacts to cultural sites that might be associated with interpretive projects.

Under this alternative, an additional utility corridor would be designated south of the Snake River and roughly parallel and adjacent to Highway 78. Since most of this corridor would be outside the NCA, large-scale utility developments would have few if any impacts to cultural resources in the NCA. However, by focusing major region-wide utility developments to a confined corridor, associated soil disturbance and overall region-wide cumulative impacts could be reduced. The proposed avoidance area would be largest under this alternative, which would reduce region-wide cumulative impacts.

Livestock grazing would be eliminated within the NCA, which would have few if any impacts on cultural resources. It is possible, however, that slight adverse cumulative impacts to cultural resources could occur as displaced livestock were more heavily concentrated on adjacent private lands.

Cultural Resources: Alternative D

Impacts to cultural resources would be the same as those described under Alternative A except that the large scale restoration efforts would have slight positive cumulative impacts by helping protect and enhance traditional cultural properties.



4.4.3 Fish and Wildlife: Cumulative Impacts

Region of Influence

- This discussion about cumulative impacts for fish and wildlife species is directly related to vegetation management in the NCA and the surrounding region. The region of influence for this section will be the same as the vegetation section: Wyoming big sagebrush and salt desert shrub communities in the 7-10” precipitation zone in the Snake River plain, generally less than 4,000 feet in elevation, between Glens Ferry and the Oregon border.

Past and Current Trends

- Currently, and during the recent past, several factors have led to a general overall decline in species abundance within the NCA and surrounding regions as a result of habitat loss, a loss of range-wide densities, a change in the degree of connections among habitats, or a combination of all three (range loss, density declines, inaccessible habitat). Management actions on public and private land have carried wildlife associated implications. Amphibians, reptiles, birds, and mammals have been impacted from the reduction of wetlands, loss or conversion of habitat, introductions of exotic species, decreased water quality, motorized vehicle use, increased roads, herbicides, and recreational use including hunting.
- Within the Owyhee Resource Area, 87% of inventoried stream miles were found to be in unsatisfactory condition. The Four Rivers Field Office has set an objective of improving the condition of 30 miles of habitat and maintaining the remainder. Current and historic information about the abundance and condition of wildlife is rare for most species due to large expanse of Federal public land in southwest Idaho combined with limited agency resources to monitor and survey the resource areas. Generally, the current status of most wildlife habitats can be used as a reflection of the status of the associated species.

- Shrub steppe communities once covered vast areas of the intermountain west, but a variety of human activities (i.e. conversion to agricultural or urban uses, introduction of exotic annual grasses and a subsequent change in the fire regime, replacing sagebrush with exotic perennial grasses) have combined to reduce shrub steppe communities by at least 50% since European settlement (Knick 1999, TNC). Fire and human disturbances continue to be the primary threats to shrub steppe ecosystems (USDA and USDI 1997, Chapter 2, p 83.). Remnant shrub communities are highly fragmented north of the Snake and east of the Bruneau rivers. Remnant shrub communities south of the Snake and west of the Bruneau rivers are less fragmented.
- Surrounding agricultural lands not utilizing BMPs could potentially further decrease water quality in the Snake River through increased sedimentation, nutrient loading, and fecal bacteria. In some cases, effective management practices have minimized degradation to water quality in the Snake River and surrounding water bodies. Changes in water quality could have an effect on fish and wildlife species that utilize aquatic and riparian systems.

Future Anticipated Trends

- Fish and Wildlife trends for the future will be dependant on the maintenance of sagebrush steppe habitat. Maintaining, enhancing and expanding sagebrush steppe will be dependant on a general increase in awareness and education regarding local ecosystems, proactive fuels and weed management programs, and an increased emphasis on rehabilitation and restoration of degraded or disturbed sites to a suitable/desirable status. Success in these efforts could slow or reverse current trends in shrub steppe loss, resulting in beneficial impacts for fish and wildlife. However, current population trends indicate that the demand and impact on natural resources is likely to increase appreciably; therefore, conservation measures would need to increase at a rate equal to or greater than



consumption in order to maintain or improve the condition of fish and wildlife habitat. The future trends of fish and wildlife in the region will be determined by the success of habitat conservation.

Cumulative Effects

Fish and Wildlife: Alternative A

Overall, the regional impacts from fire, fuels treatment, private land development, weed expansion, off road recreation, etc., combined with the affects of the management actions identified in Alternative A would result in long term cumulative adverse impacts to wildlife populations and habitat. The limited fuels treatment program along with increased agricultural and urban expansion could continue the loss of small mammal habitat in the region, further contributing to the need of raptors to expand their foraging range. The effects on wildlife would be a substantial loss of habitat function or disruption of life cycles.

Fish and Wildlife: Alternative B

Overall, the regional impacts would be the same as described in Alternative A; however, as a result of increased restoration and rehabilitation, along with other management actions identified in Alternative B, the cumulative adverse effects on wildlife would be readily detectable and localized, at the population level within the NCA.

Fish and Wildlife: Alternative C

Overall, the regional impacts would be the same as described in Alternative A. However as a result of increased restoration and rehabilitation, no livestock grazing within the NCA and the reduced loss of remnant shrub communities, along with other management actions there would be negligible adverse effects and a substantial benefit to wildlife would accrue through improved habitat quality and stabilized prey populations within the NCA.

Fish and Wildlife: Alternative D

The overall regional impacts would be the same as described in Alternative A. The bene-

ficial effects would be the same as discussed in Alternative C, but would take longer to occur.

4.4.4 Special Status Animals: Cumulative Impacts

Cumulative Impacts are being analyzed at a species-specific detail for Threatened and Endangered animals only. Cumulative impacts for the remainder of special status animal species are merged into Fish and Wildlife Section 4.4.3.

Region of Influence

Idaho Springsnail

- The target recovery area for the Idaho springsnail includes the main stem of the Snake River between River Mile (RM) 518 to RM 553. However it has also been found as far downstream as RM 338. Cumulative affects will be analyzed in terms of influences to the water quality of the Snake River between RM 553 and RM 338.

Bald Eagle

- The scope of this cumulative impacts discussion will be the Boise District Boundary of the BLM, including public, State, private, and other lands within the Owyhee, Bruneau, Jarbidge and Four Rivers Field Offices, mirroring the vegetation and fish and wildlife sections. This boundary was chosen to compare the NCA bald eagle restoration efforts to other regional management.

Yellow-Billed Cuckoo

- The scope of this cumulative impacts discussion will be the Boise District Boundary of the BLM, including public, State, private, and other lands within the Owyhee, Bruneau, and Four Rivers Field Offices. This boundary was chosen to compare the NCA yellow-billed cuckoo efforts to other regional management.



Past and Current Trends

Idaho Springsnail

- The Idaho springsnail, also known as the Homedale Creek springsnail, was listed as endangered on December 12, 1992 (57 FR 59244). Although critical habitat for this species has not been designated, a recovery plan that included this snail was prepared in 1995 (USFWS 1995) and is still being used as a recovery guidance document. Refer to Chapter 2 (Section 2.2.6.1) for detailed information about the past and current trends of the Idaho springsnail.

Bald Eagle

- Habitat loss as a result of liquidation of late-successional forests and trees, recreational developments, and other human activities; shooting; abnormally low reproduction caused by contaminants, including DDT, PCBs, and dioxin; lead poisoning; exposure to poisons used in pest control activities; power line electrocutions; and collisions have all affected the bald eagle over the last 100 years. Recently, the bald eagle population has increased throughout most of the United States (U.S.) south of Canada. Losses from contaminants have been reduced in recent years. The number of breeding and wintering eagles has increased in Idaho since the 1960s. Refer to chapter 2 (2.1.6.1) for detailed information about the past and current trends of bald eagles.

Yellow-Billed Cuckoo

- The range and population of the cuckoo have been substantially reduced across the western U.S. in the last 50 years. Historically, yellow-billed cuckoo have been found scattered in drainages in arid and semi-arid portions of Idaho. Most sightings have been made along the Snake River in southern Idaho. Breeding has been confirmed on the South Fork of the Snake River in lati-long 22 and in lati-long 26 in Minidoka County and breeding has been suspected in 6 other lati-longs (Stephens and Sturts 1998. p.36). Refer to Chapter 2 (Section 2.2.6.1) for detailed in-

formation about the past and current trends of yellow-billed cuckoos.

Future Anticipated Trends

Idaho Springsnail

- To date, no population viability studies have been conducted for the Idaho springsnail. The presence of the non-native New Zealand mudsnail in the Snake River is a threat to Idaho springsnails over the short- and long-term. The New Zealand mudsnail directly competes with the Idaho springsnail and has a reproductive advantage. With the mudsnail's ability to dominate a waterbody with its sheer numbers and the capability of consuming over 80% of a river's productivity, the future for Idaho springsnails could continue to exhibit a downward trend.

Bald Eagle

- Increased awareness and appreciation of bald eagles, combined with crucial habitat conservation nationwide has led to an increase in eagle numbers. Current wintering bald eagle trends in southwest Idaho are stable and should exhibit continued growth in the future.

Yellow-Billed Cuckoo

- The yellow-billed cuckoo is considered a rare, sometimes erratic visitor and breeder in the Snake River Valley of southwestern Idaho. The potential for continued habitat loss is possible scenario for the Snake River Valley, resulting from rising population pressures and subsequent development. Any beneficial or adverse cumulative impacts within the scope of this analysis are likely to have a negligible effect on the future trends of yellow-billed cuckoos.

Cumulative Effects

Special Status Animals: Alternative A

Overall, the regional impacts from fire, fuels treatment, private land development, weed expansion, off road recreation, etc., combined with the affects of the management actions



identified in Alternative A would result in long-term cumulative adverse impacts to special status animal populations and habitat. The effects on special status animal species would be a substantial loss of habitat function or disruption of life cycles.

Special Status Animals: Alternative B

Overall, the regional impacts would be the same as described in Alternative A. Although significant resource improvements are proposed under this alternative, they would not be great enough from a landscape perspective to moderate the more adverse impacts occurring region-wide.

Special Status Animals: Alternative C

Overall, the regional impacts would be the same as described in Alternative A. Although significant resource improvements are proposed under this alternative, they would not be great enough from a landscape perspective to moderate the more adverse impacts occurring region-wide. The significant restoration actions and other resource protections proposed would help mitigate some of the region-wide impacts.

Special Status Animals: Alternative D

The overall regional impacts would be the same as described in Alternative A. The beneficial effects would be the same as discussed in Alternative C, but would take longer to occur.

4.4.5 Special Status Plants: Cumulative Impacts

Region of Influence

- Boise District (Owyhee, Bruneau, and Four Rivers Field Offices)

Past and Current Trends

- Increased population growth, conversion of native plant communities for urban and agricultural purposes, impacts from wild-fire and livestock grazing, and the introduction of invasive and noxious weed species has caused a decline in the native flora within the region (USDA and USDI

1997). These declines have resulted in a growing number of Endangered, Threatened, and SSS. Currently there are 48 SSS identified within the region (CDC 2003). To protect these species, county, State, and Federal regulations have been enacted, most prominently is the 1973 Endangered Species Act (ESA).

Future Anticipated Trends

- Implementation of the 2003 CCA for Slickspot peppergrass could help ensure the viability of slickspot peppergrass through out the region. The agreement includes conservation measures related to fire management, recreation, invasive non-native plant species, land use authorizations and land exchanges, livestock trampling, and military training. While this is only a voluntary agreement, it increases protection of the species on Federal, State, and private lands. In addition to protecting slickspot peppergrass, populations of other SSP species within the slickspot peppergrass management areas would also benefit.
- While most environmental agencies and regulations protect SSS on Federal and State lands, there are very few mechanisms to protect those communities found on private land. Based on current building trends in the region, it is these private lands that are being developed at the greatest rate. With few restrictions to protect SSP species in these areas, it is likely to see more plant species added to the SSS list in the region.

Cumulative Effects

Special Status Plants: Alternative A

As the population increases within the region, the number of users and type of uses on public, State, private, and other lands is likely to increase appreciably. In many cases, increased users and reduced resource availability would further intensify adverse impacts to upland vegetation (see vegetation above) throughout the region, which is likely to impact SSP species. Adverse impacts associated with increased consumptive uses (agriculture, devel-



opment, livestock grazing, recreation, and other soil disturbing activities) in and around the NCA could include: increased concentration from livestock and wildlife, altered fire regimes, and increased populations of invasive species and noxious weeds. Based on the current measures taken to protect SSS populations and residual native communities throughout the region, current downward trends of are likely to continue or accelerate.

The basic impacts of restoration efforts on SSPs would be as described in the upland vegetation section. Restored areas could potentially provide suitable habitat for sensitive plant species over the long-term as competition from invasive non-native species is eliminated and desirable functional and structural components are restored. As larger areas are restored, the potential for connectivity between individual sensitive species populations increases resulting in a long-term improvement in population and species viability. However, since planning areas outside the NCA have not identified large-scale restoration projects, rehabilitation through ESR projects would be the primary restoration tool; therefore it is unlikely that large continuous habitat would be reestablished to increase connectivity between NCA populations and those outside.

However, there are some beneficial impacts that could result from increased restoration projects associated with adjacent planning areas, as well as incentives for private restoration and increased public awareness of invasive and noxious weeds. In addition, as recreation needs increase and desirable resources become increasingly limited for public use, the probability of the public becoming more aware of, and more educated on, resource issues would increase. In addition, agricultural lands adjacent to the NCA are being developed into residential and commercial properties. If these trends were to continue, the amount of WUI in and around the NCA would increase; therefore, management practices associated with WUI of public lands, fire suppression, fuels treatments, and stabilization

and rehabilitation efforts would likely be enhanced. These efforts, in addition to restoration projects and increased education, could have beneficial cumulative impacts on SSS populations. However, increased rates of development and use of sites in and around the NCA, as well as the increased potential for the introduction of invasive weed or human-caused fires would likely offset those gains unless proactive measures are taken.

Special Status Plants: Alternative B

The overall impacts to SSS from influences outside the NCA would be the same under all alternatives (see above). However, changes in vegetation treatments (restoration, noxious weed, and fuels reduction), livestock grazing, recreation and transportation, IDARNG training, and others (See Chapter 3) would reduce the overall adverse impacts to SSS within the NCA by increasing protective measures for the remaining perennial communities and potentially restoring historically degraded sites. This would not be on a large enough scale to benefit SSPs region-wide and therefore would not contribute to the impacts region-wide.

Special Status Plants: Alternative C

The overall impacts to SSS from influences outside the NCA would be the same under all alternatives (see above). However, appreciable increases in the number of acres of vegetation treatments (restoration, noxious weed, fuels reduction), as well as large-scale reductions in livestock grazing, recreation and transportation, IDARNG training, and others (See Chapter 3), would reduce the overall adverse impacts to SSS within the NCA by appreciably increasing the protective measures for the remaining perennial communities and potentially restoring large areas of historically degraded sites. However the impacts would be mainly within the NCA and would not have a cumulative effect region-wide.

Special Status Plants: Alternative D

The cumulative impacts would be the same as Alternative C.



4.4.6 Soil Resources: Cumulative Impacts

Region of Influence

- Boise District including Owyhee, Bruneau, and Four Rivers Field Offices.

Past and Current Trends

- Soils within the region are particularly susceptible to wind and water erosion, with approximately 75% of soils on BLM/U.S. Forest Service (USFS) lands susceptible to wind erosion (USDA and USDI 1997). Saline soils are prevalent and are susceptible to shrinking and swelling from drying and wetting. Based on the characteristics of the soils within the region, they are highly susceptible to management-induced disturbances (USDA and USDI 1997). Livestock grazing, agriculture, urbanization, and other soil disturbing activities have degraded structural and functional components of soils throughout the region. In addition, the establishment and spread of invasive and noxious weed species have altered vegetative components, which further impact soils. Historic uses have resulted in an adverse overall trend for soils. However, increased management actions and Federal policy changes associated with soil stabilization by State and Federal agencies has reduced the overall rate of decline, and in some cases even reversed it.

Future Anticipated Trends

- Based on regional active stabilization of soils impacted by human uses, the implementation of BMPs, and the increased compliance with Federal and State laws/regulations regarding watershed health/condition and water quality, localized erosion problems would likely be reduced.

Cumulative Effects

Soil: Alternative A

Impacts on soils can occur through increased loss and alteration of vegetation, as well as long-term affects from changes in grazing, military use, and fire regimes. Adverse cumu-

lative impacts include soil erosion due to loss of vegetation and increased mechanical impacts due to soil disturbance. Conversely, beneficial impacts may result from continued revegetation/reclamation projects and reduced occurrences of fire in reestablishment sites. As restoration efforts within the NCA are underway there would be a reduction in AUMs during the restoration period. This could potentially result in a slight localized increase in soil damage outside of the NCA if the affected permittees transfer these AUMs to their private property. As development expands in the surrounding region of influence there will be an increase in short-term impacts related to surface disturbance and changes in run-off patterns. This activity along with loss of vegetative cover in the NCA will result in slight short-term impacts to the regional soil resource. Long-term conversion of open land to residential and commercial use along with the change from agricultural use to residential there will be reduction in bare ground and subsequent erosion. As the surrounding region develops and the population increases the likelihood of man-cause fires will increase. Fire suppression efforts would focus more resources at protecting life and structures at the expense of natural resources such as native plant communities. This could have the adverse impact of increasing the loss of perennial shrub communities that help to stabilize soils.

Vehicle travel is currently managed according to motorized vehicle area designations throughout the region, and route designations are being completed for the Owyhee, Bruneau and NCA planning areas. These route designations would limit motorized vehicle use, resulting in long-term beneficial impacts. Beneficial impacts would be due to a reduction of disturbance to soils, biological crusts, and the protective vegetative cover. This would also reduce compaction impacts as well. There is an increasing demand for the activity and this use may be displaced to areas that are currently not being used for this activity. This could result in an increase in adverse impacts to soils in those areas.



Continued use of the NCA for military training, livestock grazing, and the continued loss of native vegetation due to fire would result in soil degradation. Although this impact would be moderate within the NCA, it would be a slight contribution to soil impacts on a regional basis. This is particularly true in light of the anticipated upward trend for the region as a whole, resulting from the transition from agriculture to residential use. This transition would reduce the amount of bare land and reduce the size and severity of fires across the region.

Soil: Alternative B

The cumulative impacts would be the same as in Alternative A.

Soil: Alternative C

The restoration and rehabilitation of up to 230,000 acres would have moderate to high beneficial impacts within the NCA (See Section 4.2.7.) and have a moderate potential beneficial impact to the anticipated upward trend within the region. The loss of grazing opportunity within the NCA could most likely not be accommodated on private lands outside the NCA and therefore would be lost having no cumulative impacts to soils.

Soil: Alternative D

The cumulative impacts would be the same as in Alternative C as a result of vegetation management and the same as Alternative A for livestock grazing and other resource uses.

4.4.7 Upland Vegetation: Cumulative Impacts

Region of Influence

- Boise District Boundary of the BLM, including public, State, private, and other lands within the Owyhee, Bruneau, and Four Rivers Field Offices. Wyoming big sagebrush and salt desert shrub communities in the 7-10” precipitation zone in the Snake River plain, generally less than 4,000 feet in elevation, between Glens Ferry and the Oregon border. Maintenance or improvement of these communities

would ensure the genetic interchange and long-term viability of SSP species that occur in the NCA and the region of influence. These species may be considered the vegetative equivalent of the canary in the coalmine; if they survive and flourish, then the system may be considered functional and healthy.

Past and Current Trends

- Shrub steppe communities, such as Wyoming big sagebrush and salt desert shrub, were historically the dominant upland vegetative communities in the Snake River Valley (Vale 1975; Fremont 1845; Townsend 1839). However, a variety of human activities (i.e., conversion to agricultural or urban uses, livestock grazing, recreation, and the introduction and spread of invasive and noxious weed species) have combined to alter the structural and functional components of these systems. The culmination of these activities has been the augmentation of fuel loads from annual grasses, and the subsequent change in fire regimes, resulting in an enhanced rate of degradation throughout the region. More specifically, the replacement of approximately 50% of native communities with reseeded desirable perennial species or monocultures of annuals since European settlement (Knick 1999). In addition, remnant shrub communities are generally fragmented with understories dominated by annual grass, which increases their risk for fire and conversion to exotic annual dominated communities. While native perennial communities persist within the Snake River Valley, their populations continue to have an overall downward trend.

Future Anticipated Trends

- Future trends associated with: increased awareness and education of shrub steppe ecosystems; proactive fuels and weed management programs; and increased emphasis on rehabilitation and restoration of degraded or disturbed sites to a natural status could slow or reverse current trends in shrub steppe loss. However, based on



the current population trends and the need for greater access to natural resources, the overall impact to upland vegetation in the region is likely to increase appreciably; therefore, conservation measures would need to increase at a rate equal to or greater than consumption in order to maintain or improve the condition of remnant shrub steppe communities. If these communities were maintained or improved, the genetic interchange and long-term viability of SSP species that occur throughout the region could also be improved.

Cumulative Effects

Upland Vegetation: Alternative A

As the population increases within the region, the number of users and type of uses on Federal, State, private, and other lands is likely to increase appreciably. In many cases, increased users and reduced resource availability would further intensify adverse impacts to upland vegetation (see above) throughout the region. Adverse impacts associated with increased consumptive uses (development, livestock grazing, recreation, and other soil disturbing activities) in and around the NCA could include the loss of SSP species, increased concentration from livestock and wildlife, altered fire regimes, and increased populations of invasive species and noxious weeds. Based on the current measures taken to protect residual shrub and desirable grass populations, or to restrict use levels throughout the region, current downward trends of upland vegetation are likely to continue or accelerate. In addition, adjacent agricultural practices, including the application of herbicides and pesticides could adversely impact upland vegetation as well.

However, there are some beneficial impacts that could result from increased restoration projects associated with adjacent planning areas, as well as incentives for private restoration and increased public awareness of invasive and noxious weeds. In addition, agricultural lands adjacent to the NCA are being developed into residential and commercial properties. If these trends were to continue, the amount of WUI in and around the NCA would

increase; therefore, management practices associated with WUI of public lands, fire suppression, fuels treatments, and stabilization and rehabilitation efforts would likely be enhanced. These efforts, in addition to restoration projects and increased education, could have beneficial cumulative impacts on upland vegetation. However, increased development and use of sites in and around the NCA, as well as the increased potential for the introduction of invasive weed or human-caused fires would likely offset those gains.

Upland Vegetation: Alternative B

The overall impacts to upland vegetation from influences outside the NCA would be the same under all alternatives (see above). However, changes in vegetation treatments (restoration, noxious weed, and fuels reduction), livestock grazing, recreation and transportation, IDARNG training, and others (See Chapter 3) would reduce the overall adverse impacts to upland vegetation within the NCA by increasing protective measures for the remaining perennial communities and potentially restoring historically degraded sites. Therefore, cumulative impacts would be more beneficial than Alternative A.

Upland Vegetation: Alternative C

The overall impacts to upland vegetation from influences outside the NCA would be the same under all alternatives (see above). However, changes in vegetation treatments (restoration, noxious weed, and fuels reduction), livestock grazing, recreation and transportation, IDARNG training, and others (See Chapter 3) would reduce the overall adverse impacts to upland vegetation within the NCA. This might result in some localized expansion of shrub communities into degraded areas outside of the NCA by appreciably increasing the protective measures for the remaining perennial communities and potentially restoring large areas of historically degraded sites. Therefore, cumulative impacts under alternative C would be the most beneficial for upland vegetation. The result would be there is no adverse cumulative impact and the benefits would be restricted to the NCA.



Upland Vegetation: Alternative D

The overall impacts to upland vegetation from influences outside the NCA would be the same under all alternatives (see above). The cumulative impacts would be the same as Alternative C.

4.4.8 Water Quality, Riparian, and Wetlands: Cumulative Impacts

Region of Influence

- Surface water encounters different management as it flows over the landscape and through parcels of diverse ownership. Cumulative affects will be analyzed in terms of 4th field hydrologic units. A hydrologic unit is one of a nested series of numbered and named watersheds arising from a national standardization of watershed delineation. Idaho Department of Environmental Quality (DEQ) frequently uses the fourth level of this delineation, commonly called sub basins when writing total maximum daily loads (TMDL). This analysis considers impacts to three units collectively: the Mid-Snake/Succor Unit (#17050103), the Lower Boise Unit (#17050114), and the C.J. Strike Unit (#17050101). When viewed together, these areas form a large contiguous area that encompasses the NCA and areas outside the NCA where cumulative effects may/have logically occur(ed). These collective hydrologic units will be referred to as the “zone of impact” for the purposes of this cumulative effects analysis.

Past and Current Trends

- One indication of water quality is pollutant load. Total maximum daily loads (TMDL) of pollutants in waters on Federal, State, and tribal lands have been developed and are published every two years by the DEQ and approved by the U.S. Environmental Protection Agency (EPA). A TMDL is an estimation of the maximum pollutant amount that can be present in a water body and still allow that water body to meet water quality standards. TMDL are water body and pollutant-specific.

TMDL trends for the Snake River have been relatively static over the last 10 years, in terms of sediment and dissolved oxygen problems. This is largely due to diversion and flow alteration (Pers. Comm. Pam Smolczynski 2005).

- Projects that take place on the Snake River, upstream of the NCA may affect water quality and riparian vegetation within the NCA. On the Snake River, flow alteration and diversions have altered the quality of water and riparian vegetation in the NCA over the last 100 years. Impoundments increase water temperatures and reduce dissolved oxygen content resulting in adverse effects to water quality. Agricultural practices adjacent to water bodies deliver increased amounts of sediment and other pollutants from runoff. These practices have adversely impacted the waters of the Snake River during the last century and continue today.
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- Existing water quality programs for non-point source pollutant reductions are available for private landholders In Ada, Owyhee, Canyon, and Elmore Counties, cooperators may make improvements on their own or seek cost-share funds from one of the many programs available. Most of the agricultural programs are either State or federally funded through the Idaho Soil Conservation Commission (ISCC) or the Natural Resource Conservation Service (NRCS). These programs are targeted at the agricultural community to assist with conservation practices. For example, the Owyhee Soil Conservation District (SCD) and the Canyon SCD have Water Quality Program for agriculture money available to address on-the-farm pollutant reductions although Canyon



SCD has not yet had any State or Federal project areas in the Mid Snake River/Succor Creek watershed. Other State and Federal funding sources include the State §319 grant program, the Resource Conservation and Rangeland Development Program, the USDA Environmental Quality Incentive Program, the Wildlife Habitat Incentives Program, and IDWR agricultural loans. Participation from local operators is voluntary.

- Programs developed by the State of Idaho Soil Conservation Commission (SCC) are available to protect and enhance the quality of water in Idaho. The Water Quality Program for Agriculture (WQPA) was created to protect and enhance the quality and value of Idaho waters by controlling and abating water pollution from agricultural non-point sources.
- The State of Idaho uses a voluntary approach to address agricultural non-point pollution sources. However, regulatory authority can be found in the water quality standards (IDAPA 58.01.02.350.01 through 58.01.02.350.03). IDAPA 58.01.02.054.07 refers to the Idaho Agricultural Pollution Abatement Plan (Ag Plan), which provides guidance to the agricultural community and includes a list of approved BMPs (IDHW and SCC 1993). A portion of the Ag Plan outlines responsible agencies or elected groups (Soil Conservation Districts) that will take the lead if non-point source pollution problems need to be addressed.
- All riparian areas and water bodies on BLM land within the region will be managed to meet or exceed State of Idaho water quality standards. This management will have benefits to water quality and riparian functioning condition throughout the region. The condition of riparian areas on BLM land within the region has been assessed (USDI 1999). Table Water Quality 4.1 shows a representative number of these streams.

Water Quality Table 4.1. Representative Functioning Condition Ratings on BLM Stream Miles Outside of the NCA, but within the Region.

Stream Name	Miles Rated in PFC	Miles Rated Not in PFC
Hardtrigger Creek	0	8
Jump Creek	3	2
McBride Creek	0	3
Pickett Creek	0	5

SOURCE: USDI 1999

Future Anticipated Trends

- Population growth and development of the area will increase over the life of the plan. The demand for water will increase correspondingly. Pumping from wells drilled into the Snake River Aquifer will likely increase. The effects of increased pumping from the Aquifer would depend on the degree of pumping and are unknown at this time.
- The Biological Opinion that addressed grazing impacts to Idaho springsnail habitat resulted in grazing restrictions along the Snake River, and tributaries. Riparian vegetation would likely benefit from these restrictions.

Cumulative Effects

Water Quality, Riparian, and Wetlands: Alternative A

Adverse regional impacts to riparian vegetation under Alternative A would be significant in areas of the Lower Boise Sub-basin due to population growth and development. Adverse impacts from development will be only marginal for the Middle Snake/Succor Sub-basin. Surface disturbing activities within the region would create potential habitat for noxious weeds. Water quality would not be improved region-wide by replacing agricultural lands with residential and commercial development because run-off from these developed properties contains pesticides, petroleum products, and other pollutants that are not normally treated, and therefore enter the affected water bodies. The limited number of riparian areas



and slight impacts of management actions on riparian areas within the NCA would not appreciably contribute to cumulative impacts in the region

**Water Quality, Riparian, and Wetlands:
Alternative B**

Impacts from population growth and development will be identical to those described under Alternative A. Restoration of riparian areas within the NCA for wildlife would not have cumulative impacts that affect the larger region.

**Water Quality, Riparian, and Wetlands:
Alternative C**

Impacts from population growth and development would be the same as those described under Alternative A. Livestock grazing on private, State, or Federal land surrounding the NCA could increase as a result of elimination of grazing. Riparian pastures that receive elevated grazing pressure could be adversely affected. Water quality could also be reduced on site-specific areas in these pastures outside of the NCA. Improvements to riparian areas within the NCA would have beneficial impacts within the region, but these impacts would not be significant enough to off-set the regional adverse impacts.

**Water Quality, Riparian, and Wetlands:
Alternative D**

Adverse impacts associated with population growth and development would be the same as those described under Alternative A. Management actions identified in this alternative would not contribute to the adverse regional impacts.

**4.4.9 Visual Resources: Cumulative
Impacts**

Region of Influence

- The region will include Canyon, Ada, Owyhee (northern), and Elmore counties.

Past and Current Trends

- The Snake River Plain in the area is characterized by rolling hills of sagebrush and

grasslands with very few trees. The project area is generally surrounded by open space with a few areas of development. Ada and Canyon counties have the most development while Owyhee and Elmore counties have the least. While the majority of the landscape is open, past developments have transformed parts of the viewshed from open space with expansive views, to a somewhat developed suburban landscape. Agricultural fields are a common feature within the region, resulting in a change in the color and texture of the landscape while retaining the expansive quality.

- Past projects associated with the Snake River include bridges, impoundments, roads, and homes. In Elmore County, C.J. Strike Dam has turned the valley of the confluence of the Bruneau and Snake Rivers into a reservoir. In Ada County, Swan Falls Dam is visible from the Canyon. As the Snake River enters Canyon County, the character of the landscape becomes less rugged. It remains open, but changes to more of an agricultural setting where irrigated fields are common.

Future Anticipated Trends

- Development around urban and suburban areas is expected to continue during the life of the plan. Development would likely occur around areas that have been developed in the past and extend outward. The highest amount of growth is projected in Ada and Canyon counties. Impacts on visual resources would result as land use patterns change in these counties from agricultural to residential. Homes and subdivisions will be built, along with associated roads and other infrastructure.

Cumulative Effects

Visual Resources: Alternative A

Visual resources within the region would be adversely impacted by development and population growth. The alternative does not designate additional utility corridors within the NCA. Utility companies may be forced to route corridors around the NCA making im-



pacts to visual resources more apparent elsewhere should the existing corridor not meet the future needs of the region. This could have a slight adverse contribution to the overall cumulative impacts in the region.

Visual Resources: Alternative B

Visual resources within the region would be affected by population growth and development as stated in Alternative A. The designation of an additional utility corridor under this alternative could have beneficial cumulative effects overall, if the corridor would reduce the overall length necessary for a transmission line. Restoration and fuels management projects within the NCA may have beneficial cumulative effects if these efforts coincided with restoration of neighboring lands (i.e., private, State, etc.). No restoration projects on neighboring lands are known at this time. There would be no appreciable cumulative impacts to visual resources.

Visual Resources: Alternative C

Visual resources within the region would be affected by population growth and development as stated in Alternative A. Aggressive restoration efforts within the NCA may have beneficial cumulative effects if these efforts coincided with restoration of neighboring lands (i.e., private, State, etc.). No restoration projects on neighboring lands are known at this time. The additional utility corridor proposed in this alternative would have cumulative impacts the same as Alternative B. Livestock grazing would be eliminated within the NCA. Livestock operators may seek forage elsewhere within the region which would likely result in slight, localized adverse impacts to visual quality. There would be no appreciable cumulative impacts to visual resources.

Visual Resources: Alternative D

Visual resources within the region would be affected by population growth and development as stated in Alternative A. Aggressive restoration efforts would have impacts identical to those mentioned in Alternative C. Util-

ity corridor designation within the NCA would have impacts identical to those described under Alternative A. There would be no appreciable cumulative impacts to visual resources.

4.4.10 Idaho Army National Guard: Cumulative Impacts

National Guard activities would neither be significantly affected by, nor from non-military activities state-wide.

The IDARNG has facilities in 26 Idaho communities. Given the dispersed nature of IDARNG employment, communities throughout the state would probably not be adversely affected by the relatively small loss of OTA training capability reflected in the proposed alternative.

4.4.11 Lands and Realty: Cumulative Impacts

Region of Influence

- The area considered in this analysis includes Ada County, Canyon County, Elmore County, and northern Owyhee County.

Past and Current Trends

- The number of land use authorizations, particularly rights-of-way and permits, has been a function of demand for these uses.

Future Anticipated Trends

- In response to population trends, increased development would result in increased needs for access roads and utility infrastructure on Federal, State, and private lands, which would increase the need for rights-of-way, easements, etc. to construct those facilities. Large-scale land ownership consolidation, as would occur through a major land exchange between BLM and the State of Idaho, would affect land use in the affected areas, since land use regulations and management objectives and requirements differ between agencies.



Cumulative Effects

Lands and Realty: Alternative A

Requests for easements and rights of way would increase across the region of influence as development and resource user demands increase; however, the overall environmental impacts would be slight. The cumulative economic impact of easements and rights-of-way could be significant when one considers the extent to which development and use depends on the existence of road and utility easements and related infrastructure. Over the long-term, land consolidation could reduce the amount of easement and ROW requests, but would have slight to negligible impacts region-wide. This alternative has the smallest avoidance area, which would have negligible impacts region-wide.

Lands and Realty: Alternative B

Same as Alternative A.

Lands and Realty: Alternative C

Easements, rights-of-way and land consolidation would have the same impacts as described under Alternative A. Placement of a Utility Corridor south of the Snake River immediately adjacent to the northern boundary of Saylor Creek Bombing Range, as described in Alternative C, could negatively impact use of the MOAs [Military Operating Areas] and training ranges. The proposed boundary change would have beneficial, but negligible impacts region-wide. The proposed utility corridor

Lands and Realty: Alternative D

Easements, rights-of-way and land consolidation would have the same impacts as described under Alternative A. Placement of a Utility Corridor south of the Snake River but two miles north of the Saylor Creek Bombing Range Lands Map 2), would provide the additional benefits of a second corridor while not adversely affecting use of the Saylor Creek Air Force Range. The proposed NCA boundary change would have the same impacts as described under Alternative C.

4.4.12 Livestock Grazing: Cumulative Impacts

Region of Influence

- Boise District Boundary

Past and Current Trends

- Livestock grazing has been present in and around the NCA since as early as 1836 (Gibbs 1976). Mismanagement, over use, and drought conditions caused range conditions to degrade in the early part of the century (Yensen 1982; Joyce 1989). However, increased range management and incorporation of grazing systems have improved range conditions over time (Joyce 1989). Within the region, the bulk of livestock grazing occurs on public lands; however, grazing is also present on State and private lands.

Future Anticipated Trends

- Population trends and the associated need for residential, commercial, and industrial property development are expected to increase over the life of the plan. As land development increases, impacts to vegetation, other resources, and recreation increase. The Owyhee RMP reduced the overall number of available AUMs by approximately 29,000 (USDI 1999b). Other decisions in the region related to sensitive resources (i.e., SSPs and animals) have had similar effects of reducing AUMs or adjusting seasons/durations of use in compliance with Idaho S&Gs (Appendix 3). As public needs shift and resource use increases, conflicts between livestock grazing and human development/use will increase. Long-term, increasing conflicts are likely to result in more intensive livestock grazing management and overall AUM reductions region-wide. In addition, livestock operators on private lands are not required to comply with Federal or State BMPs for protecting and enhancing riparian areas and water quality.



Cumulative Effects

Livestock Grazing: Alternative A

The overall regional impacts to livestock grazing would be the same under all alternatives. As more private lands in the region are developed for residential, commercial, and industrial purposes, and as dispersed recreation becomes more pervasive across the landscape, the land available for livestock grazing is reduced, and interactions between livestock and other human uses increase. Current grazing management would not contribute to the cumulative impacts to regional grazing management.

Livestock Grazing: Alternative B

The overall regional impacts to livestock grazing would be the same as Alternative A. However, there would be a short-term loss of up to 4,400 (15%) actual use AUMs as a result of post-treatment rest and deferment periods following habitat restoration and rehabilitation projects. Improvements in rangeland health would result in long-term beneficial effects of increased and more stable forage production.

Livestock Grazing: Alternative C

The overall regional impacts to livestock grazing would be the same as Alternative A. When combined with outside influences, the cumulative impacts of complete exclusion of livestock from the NCA would be extremely adverse for livestock grazing.

Livestock Grazing: Alternative D

The overall regional impacts to livestock grazing would be the same as Alternative A. This alternative would result in a short-term loss of grazing during restoration as a result of post-treatment rest and deferment periods. The loss of grazing would not be large enough to have appreciable impacts on the region.

4.4.13 Mineral Resources: Cumulative Impacts

Region of Influence

- This cumulative effects analysis will account for impacts within a specific region

of influence, which includes Ada, Canyon, Elmore, and northern Owyhee counties.

Past and Current Trends

- The NCA-enabling legislation withdrew the NCA from hard-rock mineral location and oil and gas and geothermal leasing. It does allow the disposal of mineral materials (sand, gravel, rock, clay, and building stone) from existing mineral material sites. However, it does not allow the establishment of new mineral material sites. Meanwhile, mineral material demands have increased in the region of influence to meet the needs of road, residential, and commercial construction associated with the increased regional population.

Future Anticipated Trends

- Development of commercial and residential properties will continue within the region of influence. Substantial utilization of available mineral material resources from public and private sources within and outside of the NCA would continue. Limitations on mineral material extraction within the NCA could put additional demand for mineral materials on private sources, as well as other agencies that provide minerals programs, such as the State of Idaho or USFS.

Cumulative Effects

Minerals: Alternative A

No effects.

Minerals: Alternative B

No effects.

Minerals: Alternatives C and D

Alternatives C and D propose NCA boundary changes that could impact the opportunity to create new mineral extraction sites on public lands that would be included within the new boundary. Conversely, public lands that are excluded from the NCA through a boundary change could be available for the establishment of new mineral material sites. As the surrounding region is developed there could



be an increased demand for sand and gravel. Limitations on mineral material sites could have a negligible cumulative impact on the local availability of these materials.

4.4.14 Recreation: Cumulative Impacts

Region of Influence

- No definitive boundary was used to analyze the region of influence for recreation. The top two destination counties in Idaho are Ada and Canyon, which are adjacent to the NCA and represent the largest influence for cumulative impacts. It is assumed that most recreation users come from population bases surrounding the NCA.

Past and Current Trends

- The 2003-2007 Idaho Statewide Comprehensive Outdoor Recreation and Tourism Plan (Idaho SCORTP) determined that outdoor recreation is on the rise in Idaho, and support for recreation education is very strong.
- As population growth increases in the area surrounding the NCA, recreation use increases. The latest census ranked Idaho population growth as 4th in the nation. Most of the population growth has been focused around urban centers. Public lands adjacent to growing population centers will logically experience greater adverse impacts from increased recreation demands and conflicts caused by increased pressure on limited natural resources.
- The route designation process that will be conducted in the NCA, Bruneau, and Owyhee field offices will have long-term direct beneficial impacts to the region by helping to meet public demand for motorized vehicle activities in a manner that provides for public health and safety, minimizes user conflicts, and reduces associated resource damage.

Future Anticipated Trends

- Population growth projections to 2025 in the Ada County area are from 13% in Kuna to 15-21% in southeast and south-

west Ada County. Southeast and southwest rural Ada County is projected to grow by 225% and 693%, respectively, by the year 2025. These extreme growth areas in Ada County are the closest population areas to the NCA, and would impact recreation levels region-wide.

Cumulative Effects

Recreation: All Alternatives

Continued population increase in the Treasure Valley area is expected to lead to an increase in recreational use in and around the NCA. As recreation use increases, so will the demand for diverse recreational opportunities. In many cases, increased numbers of users reduce overall resource availability, which further intensifies recreation conflicts throughout the region. The route designation process will have the same impacts described above under all alternatives.

Restoration, fire, and fuels management have the potential to have beneficial and adverse slight impacts to recreation within the region depending on the number of acres restored, burned, or treated and the areas that may be closed as a result. These impacts would generally be short-term.

Recreation: Alternative A

Long-term recreation demands would not be met in the NCA, forcing the public to recreate elsewhere in the region. This alternative allows for maintenance and expansion of existing facilities, but no new recreational developments, which would not likely accommodate the expected increase in recreational use due to growing population. Restoration activities in the NCA would be the least under this alternative. Over the long-term, this would result in the least improvements to the quality of recreation experiences. There would be a slight adverse cumulative impact over the long-term to the quality of recreation by the lack of facility development.



Recreation: Alternative B

The overall acres for roaded natural recreation opportunities would decline; however, this would result in an increase in acreage for semi-primitive non-motorized opportunities. This alternative allows for developments of two new recreation facilities and existing sites would be maintained and in some cases expanded, which would accommodate some of the increase in recreational use due to growing population. The short-term closure of habitat restoration areas to recreation use in the NCA could increase recreation pressure outside of the NCA, and could also result in long-term improvements to the quality of recreation experiences within the NCA. The reduction in roads, when considered with the increase in demand for motorized vehicle opportunities, could contribute to the regional cumulative loss of recreation opportunities.

Recreation: Alternative C

The acres for roaded natural recreation opportunities would decline the most under this alternative; however, this would result in an increase in acreage for semi-primitive non-motorized opportunities. One of the largest increases in recreation is in motorized vehicle use. This would not meet the demand and would result in displacement of the activity to other areas within the region, resulting in a slight adverse cumulative impact. This alternative allows for the development of up to four new recreation facilities, and existing sites would be maintained and in some cases expanded, which would accommodate some of the expected increase in recreational use due to growing population.

Recreation: Alternative D

The acres for roaded natural recreation opportunities would decline slightly; however, this would result in an increase in acreage for semi-primitive non-motorized opportunities. This alternative allows for the most new developments of recreation facilities and existing sites would be maintained and in some cases expanded, which would accommodate the expected increase in recreational use due to growing population. The impact of short-term

closures of habitat restoration areas would be the same as Alternative B, but the effect would be greater due to more acres being treated. There would be no more than a negligible adverse cumulative impact.

4.4.15 Transportation: Cumulative Impacts

Region of Influence

- No definitive boundary was used to analyze the region of influence for transportation. The top two destination counties in Idaho are Ada and Canyon, which are adjacent to the NCA and represent the largest influence for cumulative impacts. It is assumed that most motorized vehicle users come from population bases surrounding the NCA.

Past and Current Trends

- The 2003-2007 Idaho Statewide Comprehensive Outdoor Recreation and Tourism Plan (Idaho SCORTP) determined that outdoor recreation is on the rise in Idaho and support for recreation education is very strong.
- As population growth increases in the area surrounding the NCA, recreational use of motorized vehicles increases. The latest census ranked Idaho fourth in the nation for population growth. Lands located adjacent to rapidly expanding population centers will logically experience higher levels of resource pressure and adverse impacts resulting from increased demands for ORV-related recreation.
- Currently, a route designation process is being conducted in the NCA, Bruneau, and Owyhee Field Offices in an attempt to reduce the affects from motorized vehicle use on natural resources, including upland vegetation. Route designation on other lands in the region has been a low priority and is primarily conducted in conjunction with efforts on surrounding public lands. However, State and other Federal agencies are starting to restrict unlimited ORV use, adopting designated route systems, or eliminating ORV use altogether, which



could add to impacts in areas of concentrated use. Based on the continued population increases in the region, conflicts between ORV users and other recreation users are likely to continue at current or greater levels in these areas.

- Depending on their size and location, habitat restoration and fuels treatment projects in the region could have a short-term impact on the transportation network. Some, if not all routes located in areas undergoing restoration or fuels treatment could be closed to public access for periods varying from a few to many years in order to allow successful restoration.

Future Anticipated Trends

- A continued increase in population within the Treasure Valley area would lead to an increase in recreational motorized vehicle use in the NCA. As ORV use increases, so will the demand for routes.

Cumulative Effects

Transportation: All Alternatives

Although the cumulative impacts to transportation from the route designation process will be unknown until the process is completed, it would generally benefit transportation management by designating routes as open, limited, or closed to help meet public demand for motorized vehicle activities, protecting natural resources, providing for public health and safety, and minimizing conflicts between user groups. The closure of some areas that are currently used for open motorized vehicle activities would have slight cumulative impacts regionally by displacing the activity to other areas. Overall the USFS and State Parks have begun to develop route designation processes, which could further limit opportunities in the region for cross country ORV use. Since ORV use is currently not authorized in the NCA, the limited amount of area used for open motorized vehicle use within the NCA would have a slight contribution to this cumulative impact.

None of the Alternatives propose closing major access routes and therefore there would be no cumulative impact to regional access needs.

4.4.16 Utility and Communication Corridors (Land Use Authorizations): Cumulative Impacts

(See Lands and Realty Section 4.4.10).

4.4.17 Wildland Fire Ecology and Management: Cumulative Impacts

(See Upland Vegetation Section 4.4.6).

4.4.18 Social and Economic Conditions: Cumulative Impacts

Region of Influence

- The region of influence considered in this cumulative impact analysis includes four counties: Ada, Elmore, Canyon, and northern Owyhee.

Past and Current Trends

- Social and economic trends in the region of influence have changed dramatically during the last 15 years. Populations in Ada and Canyon counties in particular, have increased (see General Discussion of Regional Influences section) due largely to migration from areas outside the region of influence. Private sector investment opportunities have increased, leading to a corresponding influx of investment dollars from outside the area.
- Subdivision and rezoning has influenced social and economic conditions within the region of influence during the last 15 years. Land use patterns continue to change resulting in corresponding changes to the regional economy. The demand for housing and business properties has increased, resulting in many agricultural properties being transformed into residential and commercial use.

Future Anticipated Trends

- The primary driver of past and current trends is population growth. The rate of population growth is expected to increase within the region of influence during the next 20 years.
- The growth rate for this area has been averaging around 45% over a 10-year period and is expected to continue.



Cumulative Effects

Economics: Alternative A

Increases in population and development would continue and the economy would diversify correspondingly. Rapid population growth will be accompanied by increased pressure to develop land. Most of the NCA is adjacent to private land, and some of the private land that abuts the NCA may be developed for housing or rural residential acreage. Development of land adjacent to the NCA combined with rapid population growth may also undermine the traditional cultural patterns (i.e., ranching, and farming) and rural lifestyle of gateway communities to the NCA. Continued increases in real estate values will likely accompany the rapid population growth. Current real estate prices in most of Southwest Idaho make it financially unprofitable to purchase land for ranch expansion. Continued real estate price increases will put pressure on ranching operations to sell out to developers.

Adverse impacts resulting from a failure to meet user demands for recreational facilities would be negligible due to the numerous sectors of spending associated with the region of influence. Military spending and livestock grazing would continue at current levels. Overall, the cumulative effect of the alternative would be negligible.

Economics: Alternative B

The change in the OTA training area and associated loss of jobs would result in a slight adverse impact over the long-term; however, this adverse impact would be easily overshadowed by regional growth and economic development.

Livestock grazing actual use would be reduced by roughly 15% over the short-term potentially resulting in slight adverse impacts. Development of surrounding areas would have a much greater impact on the historic custom and culture than changes resulting from NCA management. The negligible adverse impacts to the economy would be off-set by growth in other sectors. Recreation management would

result in beneficial impacts within the region due to the creation of SRMAs and possible W&SR designations; however, the impact would be negligible.

Economics: Alternative C

Adverse impacts related to reductions in military spending within the region of influence would be slight over the short-term and negligible over the long-term. Adverse impacts from reductions in staffing would be offset over the long-term as the expanding population continued to grow the economy. There could be negligible adverse impacts to IDARNG units outside the region of influence.

The elimination of grazing in the NCA would have slight adverse economic impacts within the region. As operators reduce herd size or shift their herds to secondary pastures outside the NCA, a lag-time in production and earnings could be expected. Reductions in livestock grazing coupled with the loss of lands to development would result in greater impacts to custom and culture than in Alternatives A, B or D. Because the market rate for AUMs is not reflected in the BLM pricing, operator spending for forage would either increase, or be eliminated through herd reductions.

As land use patterns change in the area, so will perceptions of the social condition within the Boise-Nampa-Caldwell area (i.e., the Treasure Valley). Cumulatively, the area may be perceived as less appropriate for agricultural activities. This perception may exist already exists to a certain extent in the Region where urbanization is occurring resulting in pressure to the ranching industry. This shift in the perception will likely be accompanied by a gradual shift in the demographic makeup and socio-economic status of the region.

Intensive management of recreation would have slight beneficial impacts to the region. As population increases and open space decreases, demand for recreation in remaining open spaces will also increase.



Economics: Alternative D

Military spending within the region would be adversely impacted due to a decrease in employment associated with the OTA. The type of cumulative impacts would be the same as described under Alternative C; however, the degree of impact would be negligible.

The short-term reductions in AUMs associated with restoration would result in negligible adverse economic impacts to the region. Social and economic impacts would be the same as described in Alternative B.

Region-wide impacts from recreation would be negligible. Social impacts would be the same as described under Alternative C; however there would be slightly more opportunities for motorized recreation.

4.5 SUMMARY OF CUMULATIVE IMPACTS

Alternative A has the potential to cumulatively affect the following resources and resource uses at a moderate level when combined with other actions and trends within a greater region of influence: upland and riparian vegetation, soils, water quality, cultural resources, and wildlife habitat. Population growth and change from agricultural use to residential development along with the continued loss of native vegetation within the NCA would result in loss of habitat for raptors and their prey as well as other wildlife, an increase in human-caused fires, and the associated loss in native vegetation, could result in the potential for increases in soil erosion. The NCA contribution to these overall cumulative impacts would be moderate.

Alternative B would increase vegetation treatments, reduce loss of vegetation and increase management activities to accommodate use of the NCA relative to Alternative A, resulting in a slight adverse overall cumulative impact.

Alternative C has the highest level of vegetation treatments and protection of natural resources and would not contribute to regional

habitat loss. Successful restoration efforts would meet the needs of raptors and their prey and help off-set the regional loss of habitat. There would be negligible regional adverse cumulative impacts from reductions in livestock grazing and IDARNG activities; however, these would be off-set by negligible to slight beneficial cumulative impacts based on recreation, vegetation treatments, wildlife habitat improvement, and general economic growth.

Alternative D has the same level of vegetation treatment as Alternative C and also provides a high level of protection of natural resources and would not contribute to regional habitat loss. Successful restoration efforts would meet the needs of raptors and their prey and help off-set the regional loss of habitat. There would be no regional adverse cumulative impacts. However, there would be slight beneficial cumulative impacts based on recreation, vegetation treatments, wildlife habitat improvement, and general economic growth.

4.6 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires a discussion of any irreversible or irretrievable commitments of resources, which would result from an implemented proposal. An irreversible resource commitment is final and cannot be changed (e.g., the extinction of a species or destruction of cultural resource values). An irretrievable resource commitment is one in which the resource or its use is lost for a period of time (e.g., dedication of an area to military maneuver training). Implementation of any of the alternatives would result in surface disturbing activities, including livestock grazing, military training, dispersed recreation, facility development, fuels management, and habitat restoration. These surface-disturbing activities would alter soil structure, remove vegetation, and potentially damage cultural resources. In some cases, these impacts would be permanent. Raptor and raptor prey populations that are dependent on the affected habitats could be displaced and the stability of their populations could be af-



ected. However, management actions prescribed under Alternatives B, C, and D are intended to reduce the impacts to raptor and raptor prey populations and restore soil, vegetation and associated wildlife habitat. Facility construction and some military training activities, such as off-road maneuver training would result in additional irretrievable loss of habitat.

Irretrievable resource commitments center mainly on IDARNG areas designated for off-road training and fuels management projects that remove or limit expansion of shrubs. In military off-road maneuver training areas, opportunities for habitat restoration would be precluded as long as the areas are used for that purpose. Because of this, BLM plans no habitat restoration in the OTA under any of the alternatives. Under Alternative B, an additional 20,400 acres would be dedicated to military maneuver training to replace off-road restrictions placed on 22,300 acres. Under Alternative C, 3,900 acres would be removed from the OTA; and under Alternative D, there would be a 4,100-acre increase to mitigate the off-road restrictions placed on 22,300 acres. A portion of the 4,100 acres would be designated for off-road maneuvers and thus the impacts would be irretrievable so long as used for that purpose. The training area is critical to meeting IDARNG training requirements, which help to achieve State and National military objectives and contribute to the local economy. As such, there would be no reasonable expectation that the IDARNG need for maneuver training areas would reduce over the long-term or increase over the short-term.

Fuels projects involve maintaining the 136 miles of fuel breaks under Alternative A, 144 miles under Alternative B, and 148 miles under Alternatives C and D. This results in a loss of perennial habitat within the fuel breaks and could contribute to fragmentation of small mammal habitat. The decrease in the size and severity of fires in perennial vegetation communities resulting from fuel breaks would have a greater benefit for wildlife than the loss of habitat reflected in the fuel breaks themselves.

The authorization and use of mineral material sites represent an irreversible commitment of resources ranging from 496 to 693 acres, depending on the alternative. These sites represent a loss of habitat values and reduced wildlife carrying capacity. Recreation facilities, including the transportation network would also represent an irretrievable impact. Alternative A would have the greatest number of routes with Alternatives B and D having reduced numbers of routes and Alternative C having the least.

4.7 UNAVOIDABLE ADVERSE IMPACTS

Section 102 (C) of NEPA requires disclosure of any adverse environmental effects that cannot be avoided following implementation of a proposal. Unavoidable adverse impacts are those that remain following the implementation of mitigation measures or impacts for which no mitigation measures exist. Some unavoidable adverse impacts would occur as a result of RMP implementation. Others are a result of public use of lands within the NCA.

Surface disturbing activities would cause localized unavoidable impacts. Although these impacts would be mitigated to the extent possible, unavoidable damage is inevitable. The constructions of recreation or military facilities would reduce the amount of native vegetation available for wildlife. Although these impacts are unavoidable, they would be concentrated in generally localized areas previously disturbed by fire. By managing these uses there would be a reduction in the spread of impacts to other areas, in particular to intact native shrub communities that have the highest value for raptor and raptor prey populations. The greatest unavoidable adverse impact would result from habitat fragmentation due to the inability to restore non-shrub areas in designated maneuver training areas of the OTA.

In some circumstances, the loss of sagebrush steppe habitat either by direct disruption or by the spread of noxious weeds or other invasive species would be irreversible. In other instances, reversing the loss of habitat would



take many years to complete, thus irreversibly affecting wildlife that depend on these habitats.

Inadvertent damage to or loss of cultural resources from increased visitation and surface disturbing and disruptive activities is unavoidable. Although mitigation measures could be implemented for scientific data recovery, the impacts to the area during rehabilitation, restoration and facility development could not be mitigated. The number of sites that could be inadvertently damaged is unknown, but the likelihood of damage or disturbance is directly proportional to the acreage affected.

Conflicts between user types, such as individuals who seek more primitive types of recreation and motorized vehicle users who share recreational areas, are unavoidable adverse impacts. Although attempts are made to provide for a variety of recreational uses, as recreation demand increases, recreational use would disperse to other areas of the NCA, which could create conflicts with previous uses of those areas.

Numerous land use restrictions imposed throughout the NCA to protect sensitive resources and other important values, by their nature, would impact the ability of permittees, individuals, and groups who use the public lands to do so freely without limitations. Although attempts are made to minimize these impacts by limiting the protection level necessary to accomplish management objectives and by providing alternative use areas for impacted activities, unavoidable adverse impacts would occur.

4.8 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Section 102(C) of NEPA requires discussion of the relationship between local, short-term uses of man's environment and the maintenance and enhancement of long-term productivity of resources. As discussed in the introduction to this chapter (4.1) short term impacts are those changes that are caused by ground-

disturbing activities that generally revert to pre-disturbed conditions within a few years. Long-term impacts persist beyond a few years.

Under all alternatives, short-term disturbances of soils, vegetation, wildlife habitat, and possibly visitor enjoyment of the NCA from vegetation treatments and facility construction would be more than offset by the long-term productivity of the restored sagebrush-steppe habitat and the enhanced facilities available for visitor use. This would be particularly true for Alternatives C and D, with their greater emphasis on long-term restoration of habitat. Management actions to improve soil, water, riparian, vegetation, and habitat resources would improve the productivity of wildlife and SSS habitats throughout the NCA. These activities are directed toward achieving long-term improvement in ecosystem productivity to meet the needs of raptor and raptor prey populations.

Long-term impacts to soil structure and vegetation would occur in areas where concentrated recreational use is directed and where off-road military training activities occur. However, concentrating recreational use to certain areas would limit the adverse impacts from extending to other areas of the NCA. In addition, limiting military off-road vehicle maneuver training to areas with less than 10% shrub canopy cover would limit long-term impacts to shrub communities in the OTA, but would ensure that non-shrub areas would continue to incur long-term soil and vegetation disturbance from off-road military activities.



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5.1 INTRODUCTION

The success of the Snake River Birds of Prey National Conservation Area (NCA) resource management plan (RMP) will be measured by the degree to which it is implemented and the degree to which the Desired Future Conditions (DFC) are met. This chapter provides a framework to implement and monitor the various components of the proposed alternative described in Chapter 3 through an adaptive management process.

5.2 ADAPTIVE MANAGEMENT

The complexity and interconnectedness of natural processes and resource uses makes it impossible to completely understand all the components that make up the NCA and how they interact. Not only is our knowledge incomplete, but the systems themselves are constantly changing through both natural and human caused mechanisms. A dynamic planning process allows managers to apply new knowledge and understanding of processes to address these unknowns. Adaptive management is a continual process of planning, implementation, monitoring, and evaluation/assessment to adjust management strategies (Figure 5.1). Using the best available data, scientific information, and professional judgment, adaptive

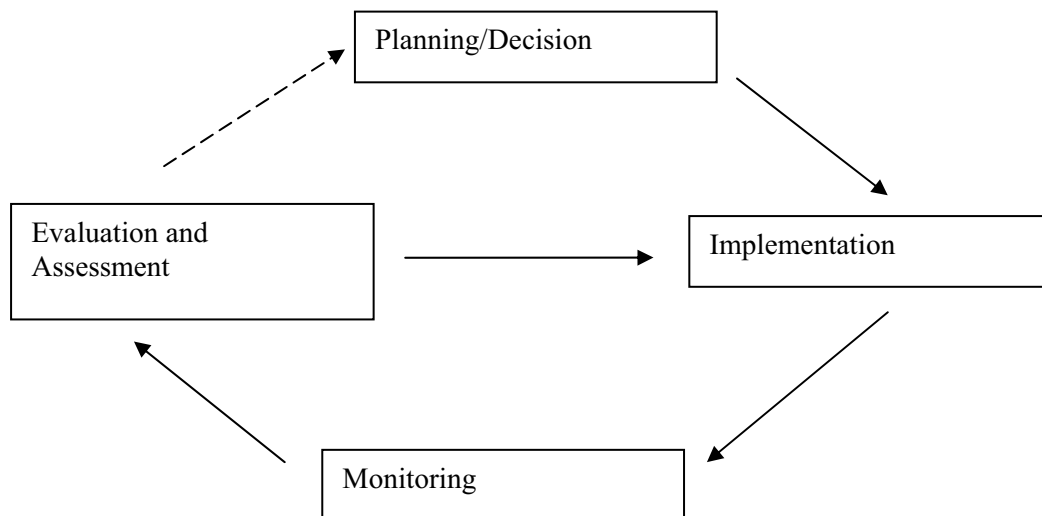
management allows managers to meet DFC and objectives by adjusting management throughout the life of the plan. Adaptive management improves the effectiveness of the plan by permitting dynamic responses to new data, changes in public expectations/desires, and a changing landscape.

5.3 IMPLEMENTATION

Implementation is the process of putting plans and decisions into effect. Following the adoption of the RMP, many of the actions identified will require implementation plans such as the designation of routes within areas identified as limited to designated routes, or a management plan for a Special Recreation Management Area (SRMA). These plans will provide the site specific management emphasis necessary to fully achieve the RMP objectives for that area.

In implementing this plan, BLM would focus its resources on the highest priority issues determined to have the greatest significance in meeting the needs of raptor and raptor prey populations. Other issues would be deferred until priority programs and projects are implemented. In setting priorities the following factors would be evaluated:

Figure 5.1. The Adaptive Management Process.



- Is this a primary purpose for the NCA?
- What geographic area would show the greatest return for the time and money invested?
- Will the project benefit special resource values, such as SSP or cultural resources?
- Does monitoring show we are making progress toward achieving the DFC?

Implementation decisions represent the final approval of the ground actions needed to implement the decisions identified in the RMP. These types of decisions generally require site-specific planning and NEPA analysis. The following are examples of implementation:

- *Fire Management* – Site specific fire and fuels management practices that are needed to meet the RMP decision to increase the number of acres receiving fuels treatments.
- *IDARNG* – Developing support facilities or infrastructure based on changes in training.
- *Lands and Realty* – Ensuring that authorized realty actions occurring in avoidance areas are consistent with the protection of the identified sensitive resource(s).
- *Livestock Grazing* – Identifying allotment-specific grazing management practices for lands designated as open for livestock grazing.
- *Recreation* – Developing SRMA management plans
- *Transportation* – Designating the travel management network for all areas identified as limited to designated routes in the RMP.

The rate of implementation and overall management would be guided by budget allocations and would be developed in consultation with other agencies, Tribes, government entities, and collaborators. Specific priorities would be further refined during development and NEPA analyses of implementation and project plans. Priorities would be reviewed annually to help develop the work plan commitments for the coming years and would be

driven in part, by our success in making progress toward achieving the DFC.

5.4 MONITORING

RMP monitoring differs from activity or program specific monitoring in that it looks at progress on a landscape basis and focuses on trends in achieving objectives that will move closer to the DFC. Monitoring would focus on how the plan is implemented (implementation monitoring) and the effectiveness of the actions implemented (effectiveness monitoring). Although some program specific monitoring currently occurs (i.e., livestock utilization, traffic counters), a comprehensive monitoring plan will be developed to insure adequate progress toward the goals and objectives for the selected alternative.

Implementation monitoring would record what, when, where, and how the plan has been followed, including legal requirements and agency policies. Implementation monitoring would occur at one-year intervals and would provide a basis for annual budgeting.

Effectiveness monitoring would focus primarily on vegetation resources (for DFC) and secondarily on other resources (for objectives). Most resources and resource uses depend on the type and ecological condition of existing vegetation communities. The DFC generally calls for maintaining or increasing the amount of perennial grass and shrub cover. Effectiveness monitoring would focus on short- and long-term landscape-wide changes to perennial vegetation cover (Table 5.1). Key indicators would include the amount of:

- shrub or perennial grass dominated communities that are converted to annual dominated communities by fire or failed vegetation treatments (desirable vegetation lost);
- perennial grass/shrub or to a lesser degree, perennial grass communities (desirable vegetation) present; and
- connectivity between desirable vegetation communities (degree of fragmentation).



Table 5.1. Landscape-level Measures of the Effectiveness of Implementing the NCA RMP. Changes in these Indicators Would Help Determine Progress Toward Meeting DFC.

Indicator	Management Area (BLM acres)	Current	10-year	20-year	Trigger(s)
Desirable Vegetation Lost	Entire NCA		<15,000 acres	<30,000 acres	Loss of >7,500 acres in a 5-year period.
Desirable Vegetation Present ¹	Entire NCA (476,600) ²	39	46	58	Failure of >20% of treatments over a 5-year period.
	NCA outside the OTA (341,600)	42	52	66	
	1 (96,700)	66	75	90	
	2 (190,800)	35	45	60	
	3 (54,100)	30	35	45	
	OTA (134,900)	32	32	39	Loss of 10% in 10 years.
Degree of fragmentation	1	Moderate	Moderate	Low	Increase in the expected level of fragmentation.
	2	Moderate to High	Moderate	Moderate to Low	
	3	High	High	Moderate	
	OTA	Low to High	Low to High	Low to High	

¹ Expressed as a percentage of the area.

² Total of the following general vegetation classifications: shrub/cheatgrass, cheatgrass, exotic annuals, Sandberg bluegrass/cheatgrass, shrubs, seeded, and bare ground.

Although 230,000 acres of vegetation treatments would occur in the proposed alternative, the 10- and 20-year projected values for desirable vegetation present account for funding problems or unforeseen catastrophic events (i.e., fire, drought).

Monitoring intervals would vary because of different responses to treatments or disturbances. Fire would result in the immediate conversion of shrublands to grasslands; therefore, changes can be monitored on a yearly basis. However, because fire conditions vary considerably between years, the trigger for change would occur at a longer interval. Establishing perennial grass and shrub communities through vegetation treatments would occur at a slower rate; therefore, changes from fuels and restoration treatments could be expected

to be measurable at five-year intervals. Increasing the size and connectivity of perennial communities would occur over the long-term, and measurable changes could be expected at 10- or 20-year intervals.

The triggers are meant as guidelines and could change as inventory, research, and experience indicate.

Objectives to be monitored are organized by resource or resource use (Table 5.2). Monitoring is intended to identify broad trends that indicate improvements or changes that need to be addressed and is not intended to be site specific or address all objectives, activities, and resources. The objectives listed generally follow those identified in Chapter 3; however, some have been paraphrased or combined



where appropriate. They are listed under the resource most directly affected by the action. Monitoring of key elements of the plan does not constitute a BLM decision, but merely provides the basis for adaptive management.

Monitoring would be implemented over a period of years, and would be conducted in a cost-effective manner, often using data currently collected for other purposes, such as rangeland trend data. Monitoring may also

include sampling, modeling, or remote sensing to analyze landscape-wide progress. Monitoring methods would follow BLM or other appropriate protocols.

The monitoring program would not be static, but would be periodically evaluated and adjusted as appropriate to ensure that the monitoring questions and standards remain relevant. As part of regular plan maintenance, some monitoring items could be discontinued and others added as knowledge and issues change.

Table 5.2. Landscape-level Measures of the Effectiveness of Implementing the Snake River Birds of Prey National Conservation Area RMP. Changes in these Indicators Would Help Determine if Objectives are Being Met.

Cultural	Objective	<i>Manage cultural resources by emphasizing mitigation and public interpretation.</i>	Indicator/Trigger for Adaptive Management
	Monitoring Method and Frequency	Monitor a representative sample of significant cultural sites (including sites within the OTA) at least once every three years (1-3 year). Create a mitigation plan based on the results of the monitoring. Monitor the Guffey Butte – Black Butte Archaeological District and the Oregon Trail for recreation, OHV, fire suppression, and rehabilitation/restoration impacts (annually).	Impacts to cultural resources that detract from the characteristics that make a site eligible for the National Register.
Fish and Wildlife	Objective	<i>Emphasize protection and enhancement of raptor, raptor prey and other wildlife populations and habitats and expand areas useable by raptor prey and big game.</i>	Indicator/Trigger for Adaptive Management
	Monitoring Method and Frequency	Monitor raptors and raptor prey populations to determine whether treated and untreated vegetation communities are meeting their needs (1-3 years). Use monitoring data provided by IDF&G (1-5 year intervals) for waterfowl, upland game, and big game species to identify population trends. Monitor the colonization of successfully rehabilitated and restored uplands by representative wildlife species beginning 15 years after treatment.	Consistent downward trends or persistent instability in populations.



Table 5.2. Landscape-level Measures of the Effectiveness of Implementing the Snake River Birds of Prey National Conservation Area RMP. Changes in these Indicators Would Help Determine if Objectives are Being Met.

Special Status Animals	Objective	<i>Emphasize maintenance, protection, and enhancement of raptors and other sensitive wildlife populations and habitats.</i>	Indicator/Trigger for Adaptive Management
	Monitoring Method and Frequency	<p>Monitor representative select sensitive species (avian, mammalian, aquatic) in representative habitats (1-3 year intervals).</p> <p>Monitor the colonization of successfully rehabilitated and restored riparian/wetlands by representative special status species beginning 15 years after treatment (1-3 year intervals).</p>	Consistent downward trends or persistent instability in populations.
Special Status Plants	Objectives	<i>The distribution, abundance, and vigor of special status plants would be maintained or improved.</i>	Indicator/Trigger for Adaptive Management
	Monitoring Method and Frequency	Monitor select populations of Type 1 and 2 special status plants for disturbance from livestock trampling and grazing, OHV activity, fire (suppression and ESR activities), and exotic plant invasion (1-5-year intervals). Slickspot peppergrass occurrences would be monitored annually using the habitat integrity protocol (as described in the CCA).	For slickspot peppergrass, 10% surface disturbance on 10% of slickspots on a transect would trigger a management change. Other species do not have specific triggers.
Vegetation	Objectives	<p><i>Watersheds would have stable vegetative communities that provide for proper hydrologic function, nutrient cycling, energy flow, and soil stability.</i></p> <p><i>Limit further loss of existing native shrub habitat to no more than 30,000 acres and increase the acres of restored shrub habitat.</i></p>	Indicator/Trigger for Adaptive Management



Table 5.2. Landscape-level Measures of the Effectiveness of Implementing the Snake River Birds of Prey National Conservation Area RMP. Changes in these Indicators Would Help Determine if Objectives are Being Met.

	Monitoring Method and Frequency	Use satellite imagery to monitor landscape changes in desired plant communities related to fire, recreation, livestock grazing, military training, and other activities to assess potential impacts to raptor prey species (5-year intervals). Monitor livestock utilization following use periods. Vegetation trend monitoring in the OTA. Monitor condition, viability, and effectiveness of fuel breaks (annually).	Greater than expected loss of remnant perennial vegetation communities.
Recreation	Objective	<i>Provide a diversity of quality, resource based recreational opportunities, while protecting resource values, minimizing user conflicts, and promoting public safety.</i>	Limits of Acceptable Change (LAC) thresholds are exceeded.
	Monitoring Method and Frequency	Obtain visitor use estimates from other State agencies (e.g. IDF&G, IDP&R) and private entities (e.g. Idaho Power Company) (annually). Conduct visitor satisfaction surveys. Evaluate other monitoring data (vegetation, wildlife) to determine if resource values are being adequately protected.	

5.5 EVALUATION AND ASSESSMENT – FUTURE CHANGES TO THE RMP

Evaluation and assessment is the point where plans and monitoring data are reviewed. This phase of adaptive management is used to: 1) judge the success of existing actions in meeting objectives and making progress toward achieving DFC; 2) make recommendations for mid-course corrections; and 3) help set priorities for management and research. The understanding gained through a comprehensive review of all the monitoring data is critical to managing sustainable, healthy, and productive habitats.

Evaluation and assessment would occur at five-year intervals. Tables 5.1 and 5.2 identify indicators or triggers (conditions that reflect a movement away from DFC) that may indicate a need to change or adjust management. Results from program specific monitoring could provide additional indicators for change. Conditions that might warrant a change in the RMP include:

- New information or circumstances that provide for interpretations not known or understood when the RMP was completed that could significantly affect ongoing actions.



- RMP decisions that are no longer valid based on new information or changed circumstances.
- Implementation decisions that are no longer valid based on new information or changed circumstances.
- Effects of proposed or ongoing actions that are substantially different than those projected in the Environmental Impact Statement (EIS).
- Inconsistencies that arise between RMP actions and other resource-related plans.

Minor changes, refinements, or clarifications in the plan are maintenance actions that incorporate data from monitoring. Plan maintenance actions would not expand the scope of resource uses or restrictions or change the terms, conditions, or decisions of the approved NCA RMP/EIS. Maintenance actions do not require formal public involvement, Tribal con-

sultation, or interagency coordination. Major changes to the plan, however, would require a plan amendment, formal public involvement, interagency coordination, and Tribal consultation, and NEPA analysis.

5.6 COLLABORATION IN IMPLEMENTATION AND MONITORING

Although BLM has primary responsibility for management of the NCA, opportunities exist to work with a variety of cooperating entities (i.e. Idaho Army National Guard (IDARNG), U.S. Geological Survey's Biological Resource Division) during plan implementation and monitoring. For example, The IDARNG monitors vegetation plots annually to determine habitat trend. And provide information regarding the status of vegetation in the OTA.



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6.1 INTRODUCTION

The Bureau of Land Management (BLM) conducted this planning process in accordance with requirements of the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations, and Department of Interior (DOI) and BLM regulations and policies. NEPA and the associated regulatory/policy framework require Federal agencies to involve interested publics in their decision-making, consider a range of reasonable alternatives to proposed actions, and prepare environmental documents that disclose the potential impacts of proposed actions and alternatives.

Title II, Section 202 of the Federal Land Policy and Management Act (FLPMA) directs BLM to coordinate planning efforts with American Indian Tribes, other Federal agencies, and State and local governments as part of its land use planning process.

This chapter documents the collaborative approach undertaken by BLM throughout the process of developing and releasing the Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the Snake River Birds of Prey National Conservation Area (NCA). In developing the NCA RMP, BLM sought to do more than provide information and solicit feedback. BLM implemented a process that enabled stakeholders to participate at the level and to the degree that best met their needs and interests. Those interested in obtaining updates had the opportunity to do so via newsletters and open houses; while those interested in developing products and engaging in discussion and issue resolution had that opportunity as well. The distinction between public involvement, which is based on information sharing and feedback, and collaboration, which provides engagement in product development, is instrumental in understanding and appreciating BLM's approach.

6.2 COLLABORATIVE PLANNING PROCESS

In seeking to implement a collaborative approach to developing this RMP, the BLM sought assistance from the U.S. Institute for Environmental Conflict Resolution (Institute). The Institute provides professional neutral process expertise designed to “assist parties in resolving environmental conflicts ... that involve Federal agencies or interests.” Specifically, its primary objectives are to:

“Resolve Federal environmental, natural resources, and public lands disputes in a timely and constructive manner through assisted negotiation and mediation, increase the appropriate use of environmental conflict resolution (ECR) in general and improve the ability of Federal agencies and other interested parties to engage in ECR effectively, and engage in and promote collaborative problem-solving and consensus-building during the design and implementation of Federal environmental policies to prevent and reduce the incidence of future environmental disputes.”

After publishing the Notice of Intent (NOI) on August 7, 2001, BLM entered into an inter-agency agreement with the Institute in November 2001 to design and implement a process that would address and potentially reduce stakeholder polarization

The purposes of this partnership were to: (1) assess opportunities for collaboration in development of the RMP, (2) develop a collaborative approach and strategies based on the results of the assessment, and (3) provide neutral facilitation.

In June 2002, the assessment report, entitled *Assessing Prospects for Collaborative Planning and Public Participation for the Bruneau and Snake River Birds of Prey NCA Resource Management Plans*, was completed and made available to the public. The Assessment was based on comprehensive interviews of numerous individuals with interests in and ties to the planning area(s).



The Assessment became the foundation for a document that outlined the rationale and approach for BLM’s planning process: *A Collaborative Process for Resource Management Planning* (Collaborative Plan). Based on Assessment results, the Collaborative Plan identified the following seven key principles to guide the process and all related activities throughout the project:

1. Realistically match internal resources to commitments;
2. Identify what is fixed and what is open for input and influence by the public;
3. Be clear and consistent;
4. Educate about the RMP process and how it links to future site-specific decisions;
5. Link to national strategies and policies (and court precedents) in order to focus on what is open for discussion and minimize debate on issues that are already decided;
6. Follow through on commitments, both procedural and substantive; and
7. Be publicly accountable for seeking input from the public.

The Collaborative Plan articulated the process goal: “To make better decisions with a greater base of public understanding, support and ownership.” To accomplish this goal, the Collaborative Plan identified six process objectives:

1. To learn as much as possible from stakeholders to improve BLM decisions. Use stakeholders to help create a good information base.
2. To understand the agency’s roles and responsibilities, and what is and is not negotiable (laws, regulations, requirements, previous decisions, etc.).
3. To engage stakeholders in product development (e.g., issue identification, issue bundling, alternatives development, review of draft EIS).
4. To provide a variety of involvement opportunities that enable stakeholders to engage at the level that best suits their level of interest.

5. To provide the public an accounting of how their input is used.
6. To seek as much consensus and common ground as possible.

6.3 STRUCTURED CHECKPOINTS

The collaborative process resulting from this guidance used “structured checkpoints” so stakeholders knew who would have input into product development and at what stage in the process. Using this iterative process of structured checkpoints, draft products were developed; then circulated through the structured checkpoints. These checkpoints provided for consistency with other planning efforts, met public expectations, and provided a two-way understanding of the actions and their impacts. Checkpoints included:

1. Product development by the Interdisciplinary (ID) Planning Team.
2. Review of products by Tribes.
3. Review of products by Resource Advisory Council (RAC) and Intergovernmental Coordination Group (ICG).
4. Public Input.
5. ID team product refinement – assimilate new information into product.

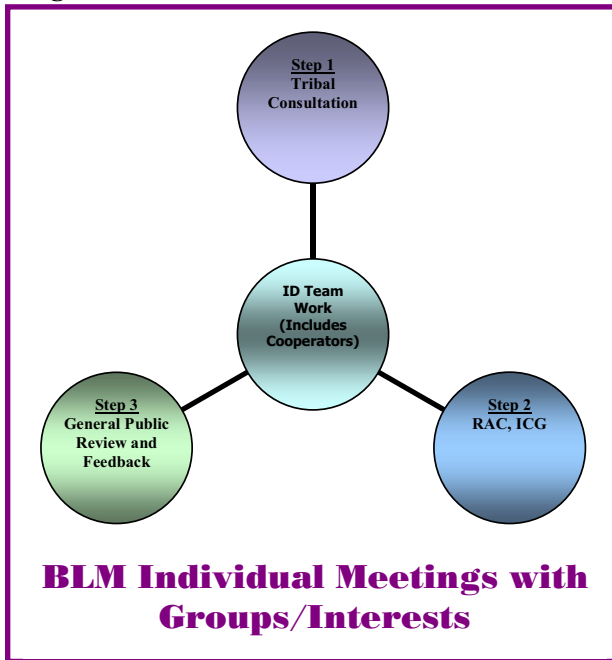
6.3.1 Interdisciplinary Team

Products circulated through each checkpoint were resubmitted to BLM’s ID Team – a team of resource specialists responsible for development of components of the plan that fall within their expertise and purview within the agency. Typically, the ID Team accepted all of the input and suggestions generated through the various checkpoints and considered, addressed and refined the product(s) as appropriate. In a number of instances, specific collaborative events were convened that provided stakeholders and the public an opportunity to work with and interact directly with the ID Team.

The following diagram illustrates the iterative nature of the process and the integration of structured checkpoint activities into the ID Team’s development of products. This iterative activity was the foundation of the collaborative process.



Figure 6.1. The Collaborative Process.



6.3.2 Tribal Consultation

In keeping with Tribal preferences, applicable laws, regulations and policies, regular and ad hoc consultations were held with Tribal officials. From a regulatory standpoint, the BLM must use the consultation process to “identify the cultural values, the religious beliefs, the traditional practices, and the legal rights of Native American People which could be affected by BLM actions on Federal lands.”

At the outset of this planning process, meetings were held with the Shoshone Bannock and the Shoshone Paiute Tribes to determine consultation procedures, format, and key junctures.

In March 2001, the BLM Boise District entered into a Memorandum of Understanding with the Shoshone-Paiute Tribes of the Duck Valley Reservation, formalizing the consultation process through an existing venue initiated by the Shoshone-Paiute Tribes and the Boise District several years ago to facilitate their government-to-government relationship. In addition to the regular monthly consultation, special ad hoc meetings were held to discuss issues related to the RMP/EIS.

The Shoshone-Bannock Tribe chose to be involved on both a government-to-government and staff-to-staff basis. Shoshone-Bannock Tribal staff participated in a workshop with BLM personnel. The Tribe provided an orientation on the Tribal perspective and together the group identified appropriate methods for addressing Tribal issues. The Shoshone-Bannock Tribal Council also invited the BLM to formally provide information at its Council meetings. The Shoshone-Bannock Tribe and the BLM work to maintain the coordination at both levels.

All Tribal consultation and input occurred through direct interaction between BLM staff and Tribal representatives. BLM’s ID Team incorporated Tribal perspectives into products under development.

Resource Advisory Council (RAC)

The Boise District RAC is a fifteen-member Federal Advisory Committee Act-chartered group responsible for providing consensus-based advice to BLM. The RAC received briefings and was afforded opportunities to comment on product and process at their regularly scheduled meetings. The RAC has been actively involved with product development, hosting public meetings, participating in workshops where the group worked to address input, developing alternatives, and providing a unique perspective relative to other collaborative processes. The RAC appointed a land use planning sub-committee in 2001 to assist with this process.

Intergovernmental Coordination Group (ICG)

NEPA requires the BLM to work toward consistency between management plans and the “officially approved or adopted resource-related plans, policies and programs of other Federal agencies, State and local governments, and American Indian Tribes.”

Relative to the above requirement, the ICG is a process innovation. Convened by the BLM, this group is comprised of representatives from State and Federal agencies, counties and



congressional staffs who meet periodically to review plan development and issues, provide for consistency review from their respective agency perspectives, and help resolve inter-agency issues that may be in conflict, not only with BLM but also among participating entities. The ICG met numerous times over the course of this planning process, and while some participated to a greater degree than others, many participants became actively involved by:

- Providing for consistency review of the BLM product with their own plans, and seeking understanding and addressing consistency issues between their own and other participants' plans;
- Providing resource-specific expertise to similar elements and issues of the BLM product;
- Attending and interacting with individuals at public meetings on issues related to their areas of expertise;
- Participating in workshops to develop planning products; and
- Reviewing and commenting on the document.

ICG Representation:

- Ada County Parks and Waterways
- Ada County Planning and Zoning
- Canyon County Commissioners
- Idaho Department of Environmental Quality
- Elmore County Commissioners
- Governor's Office
- Idaho Army National Guard
- Idaho Department of Fish and Game
- Idaho Department of Lands
- Idaho Department of Parks and Recreation
- Idaho Department of Water Resources
- Idaho Soil Conservation Commission
- Idaho Department of Agriculture
- Idaho Office of Species Conservation
- Mountain Home Air Force Base
- National Marine Fisheries Service
- Owyhee County Commissioners
- U.S. Fish and Wildlife Service

The formal 60-day consistency review by the Governor will occur when this document is published.

6.3.3 Other Formal Consultation

U.S. Fish and Wildlife Service (USF&WS)

The Endangered Species Act of 1973 (ESA), as amended, directs Federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the existence of any listed species or destroy or adversely modify critical habitat (50 CFR 400). The ESA authorizes Federal agencies to enter into early consultation with the USF&WS to make those determinations. BLM entered into an agreement with USF&WS on April 17, 2002 and periodic meetings have taken place throughout the planning process. In addition, USF&WS staff has attended ICG meetings, providing comment and feedback at key junctures.

State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation

The SHPO must be consulted concerning any resource management proposals that might affect a cultural property listed on or eligible for the National Register of Historic Places. Consultation with the SHPO is a normal part of the planning process.

6.3.4 Cooperating Agencies

Cooperator status was offered to the Idaho Army National Guard (IDARNG) and County officials from Ada, Canyon, Elmore and Owyhee Counties. To be a cooperating agency, there must be jurisdictional overlap with BLM, the agency must be able to offer special expertise, and their involvement should enhance coordination and consistency. The IDARNG and Owyhee County signed formal cooperating agency agreements and their representatives participated on a regular basis as members of the ID Team. They also participated in the ICG.

6.3.5 General Public and Other Collaborative Activities

The project *Assessment* advised the BLM that different people and stakeholders will prefer



different levels of involvement, and that multiple types of opportunities should be available so that individuals and entities can participate at the level that best suits them. Therefore, opportunities for involvement were designed to range from simple information sharing and feedback to involvement in product development. The venues were selected to meet specific stakeholder needs and their desired level of involvement in the process.

The participation and engagement of special interests groups, landowners, the general public and all stakeholders was solicited throughout the process. A variety of venues for participation were made available, including public open houses, community meetings, a data fair, and focused large and small group work sessions.

One of the notable events of the collaborative process was the assemblage of the RAC, ICG, and the ID Team to assimilate information collected during the scoping meetings and use that information, in combination with the desired future condition statements, to initiate the drafting of a range of alternatives. The public was invited to observe the meeting and was afforded an opportunity to comment and provide suggestions.

Personal contacts, news releases, newsletters, e-mail notices, the BLM planning website, and Federal Register notices were the primary tools used to communicate with stakeholders and collaborators. Upon request, BLM provided presentations and had informal discussions relative to specific issues of concern.

Through collaboration, processes and products were built upon those that came before. As a result, RMP/EIS alternatives were designed, to the extent possible, to achieve the desired future conditions, which were developed in consideration of the issue statements.

6.4 COLLABORATIVE ASSESSMENT

Important components of the collaborative process were the periodic assessment activities conducted by the neutral facilitators to assess

stakeholder perspectives of the process and products to date. Based on this information, facilitators would identify process adjustments, and would provide BLM recommendations for appropriate adjustments. While much of this assessment was conducted through informal conversations, structured interviews were conducted and documented (without attributing comments to specific individuals) in January 2003 and March 2005.

6.5 ADDITIONAL COLLABORATION

The collaborative process will continue through the completion of the NCA RMP and during development of an implementation plan that will begin once the ROD is signed. Future public involvement will be based on existing understandings, processes, and structured checkpoints.

- Public notifications will be made via newsletter announcements, media releases, web postings, and key contacts with stakeholders. Such communications will continue throughout the release of the ROD.
- Community meetings, will be held to clarify information and help the public understand the proposed actions. As decisions are implemented, public meetings will be held, as appropriate, to keep the public informed and allow communities to help identify opportunities to collaborate on future management.
- Formal consultation, with Tribes, USFWS, and SHPO will occur throughout the duration of the RMP process and as appropriate during plan implementation.
- Ongoing coordination with local governments and special interests will continue as appropriate.
- Changes between the Draft and Proposed RMP were made based on public comment. These changes were reviewed by the RAC, ICG, cooperating agencies and Tribes. Those who provided comments on the draft plan were contacted regarding the responses to their comments and meetings were held as appropriate to keep organiza-



tions and special interest groups aware of changes.

- Proposed RMP/Final EIS addressed, where appropriate, substantive written comments received during the comment period, and incorporated changes resulting from the collaborative revision process. The Record of Decision (ROD) will be issued by BLM after the release of this document, the Governor’s Consistency Review, and resolution of any protests to the Final RMP/EIS.
- Formal mediation services will be available if needed.

6.6 LIST OF RECIPIENTS

The following is a partial list of the agencies, organizations, and individuals who expressed interest in the RMP/EIS during the preparation of this document. Each will be sent a notice of availability and, upon request, either the summary of the Proposed RMP/EIS, the entire document, or notification of where the document may be viewed on the BLM planning website.

6.6.1 American Indian Tribes

- Shoshone-Bannock Tribes
- Shoshone-Paiute Tribes

6.6.2 Government Agencies and Representatives

- Ada County Commissioners
- Ada County Planning and Zoning
- Boise City Public Works
- Canyon County Commissioners
- Canyon County Planning and Zoning
- Department of Agriculture – Boise and Payette National Forests
- Department of Defense – Washington, DC
- Department of Defense – Mountain Home Air Force Base
- Department of Defense – U. S. Army Corp of Engineers
- Department of Energy – Washington, DC
- Department of Interior
- Department of Interior – Bureau of Indian Affairs – Idaho and Nevada

- Department of Interior – National Park Service
- Department of Interior – U.S. Fish and Wildlife Service
- Elmore County Commissioners
- Elmore County Growth & Development
- Elmore County Planning and Zoning
- Idaho Air National Guard
- Idaho Army National Guard
- Idaho Department of Agriculture
- Idaho Department of Commerce
- Idaho Department of Environmental Quality
- Idaho Department of Fish and Game
- Idaho Department of Health and Welfare
- Idaho Department of Lands
- Idaho Department of Parks and Recreation
- Idaho Department of Water Resources
- Idaho Environmental Council
- Idaho Farm Bureau Federation
- Idaho Fish and Game Commission
- Idaho Geological Survey
- Idaho Migrant Council
- Idaho State Historical Society
- Office of the Governor
- Owyhee County Commissioners
- Owyhee County Natural Resources
- Owyhee County Planning and Zoning
- State Historic Preservation Office
- State of Idaho Elected Officials – Local Area
- U.S. Environmental Protection Agency
- U.S. Senator Larry Craig
- U.S. Senator Mike Crapo
- U.S. Congressman (now Governor) C.L. “Butch” Otter
- U.S. Congressman Mike Simpson

6.6.3 Business Organizations and Other Groups

In addition to the specific businesses, interest groups, and other organizations listed below, numerous individuals expressed an interest in the RMP/EIS and requested to be notified of the availability of the RMP/EIS.



- American Endurance Riders
- American Hiking Society
- Association of Idaho Cities
- Audubon Society
- Blue Ribbon Coalition
- Bogus Creek Outfitters
- Boise District Grazing Advisory Board
- Boise District Resource Advisory Council
- Boise State University
- Boise Valley Point Dog Club
- Capital Trail Vehicle Association
- Chamber of Commerce –
Local Communities
- Committee for Idaho’s High Desert
- Desert Bighorn Sheep Council
- Desert Raiders
- Desert Rats of Idaho, Inc.
- Elmore County Motorcycle Club
- American Ecology (Envirosafe)
- Far & Away Adventures
- Foundation for N American Sheep
- Foundation for N American Wild Sheep
- Friends of the Mustangs
- Friends of the West
- Gem/Boise Economic Development
- German Shorthaired Pointer Club
- Heritage Program
- High Desert Coalition
- Idaho Association of Counties
- Idaho ATV Association
- Idaho Bird Hunters Association
- Idaho Brittany Club
- Idaho Capital Trail Association
- Idaho Cattle Association
- Idaho Conservation League
- Idaho Ducks Unlimited
- Idaho Gem Club
- Idaho Gold Prospectors Association
- Idaho Native Plants Society
- Idaho Outfitter and Guides Association
- Idaho Power Company
- Idaho Rangeland Resources Committee
- Idaho Rivers United
- Idaho Rural Partnership
- Idaho Soil Conservation Commission
- Idaho Snowmobile Association
- Idaho Trail Machine Association
- Idaho Water Users Association
- ID Whitewater Association
- Idaho Watershed Project
(Western Watershed Project)
- Idaho Wildlife Council
- Idaho Wildlife Federation
- Idaho Wool Growers
- Ilowan’s Children
- Institute for High Desert Studies
- International Society for the Protection of
Horses & Burros
- Juniper Mountain Outfitters
- Libraries – Local Public and University
- Little Gem Motorcycle Club
- Mile High Outfitters
- Nampa Gold Prospectors Association
- National Wildlife Federation
- Natural Resources Defense Council
- Owyhee Back Country Horsemen
- Owyhee Cattlemen's Association
- Owyhee County Historical Complex
- Owyhee Gem & Mineral Society
- Owyhee Land Use Planning Commission
- Peregrine Fund World Center for BOP
- Resolution Advocates
- River Odyssey's West
- Sevey Guide Service
- Sierra Club of Idaho
- Snake River Alliance
- Snake River Outfitters
- Snake River Raptor Volunteers. Inc.
- Sportsmen for Fish & Wildlife
- Squaw Butte Backcountry Horsemen
- Stanley Potts Outfitters
- The Nature Conservancy
- The Wilderness Society of Idaho
- Treasure Valley Trail Machine
Association
- Trout Unlimited
- Western Range Service
- Western Whitewater Association
- Whiskey Mountain Outfitters
- White Cloud Outfitters
- White Horse Associates
- Wild Rockies Inc.
- Wilderness River Outfitters
- Wildlife Management Institute
- Woolgrowers Association of Idaho



6.7 KEY COLLABORATIVE EVENTS FOR NCA RESOURCE MANAGEMENT PLAN

Table 6.1. Key Collaborative Events.

Topic (# of Meetings)	Audience	When
Scoping (6) and stakeholder comment	All stakeholders (Tribes through formal consultation)	Nov 2001 – Jan 2002
Collaborative Process/ Issue Development (4)	All stakeholders (Tribes through formal consultation)	July 2002
Review and comment on issues	All stakeholders (Tribes through formal consultation)	July – August 2002
Issue Refinement (1)	Interdisciplinary Planning Team/RAC/ICG with public observation and input	September 2002
Review and comment on Planning Criteria	All stakeholders (Tribes through formal consultation)	Fall 2002
Desired Future Conditions (3)	All stakeholders (Tribes through formal consultation)	December 2002
Data Fair (3)	All stakeholders	June 2003
Objectives and Management Actions (5)	ID Team/RAC/ICG with public observation and input (Tribes through formal consultation)	Sept – Nov 2003
Preliminary Draft Alternatives (3)	All stakeholders (Tribes through formal consultation)	June – July 2004
Draft Alternatives (3) – Traveling Coffee Shops – Alternatives, Questions and Answers and How Comments were Incorporated	All stakeholders/RAC/ICG (Tribes through formal consultation)	June – July 2005
Public Comments (numerous) – Phone conversations and briefings	Individuals Providing Comments on the Draft EIS. RAC/ICG/Congressional Staff (Tribes through formal consultation)	Jan-Feb-Mar 2007



6.8 LIST OF PRINT AND BROADCAST MEDIA

Local and regional newspapers and radio stations disseminated information on the NCA

RMP/EIS scoping and planning process. Press releases were provided to the following media outlets.

Table 6.2. List of Print and Broadcast Media Used to Disseminate Information.

Newspapers	
Idaho Statesman – Boise	Times News – Twin Falls
Owyhee Avalanche – Homedale	Kuna-Melba News – Kuna
Boise Weekly – Boise	Capital Press – LaGrande, OR
Messenger Index – Emmett	Mountain Home News – Mountain Home
Idaho Press Tribune – Nampa	Weiser Signal American – Weiser
KBCI Channel 2 – Boise	KTVB Channel 7 – Boise
KTRV Channel 12 – Nampa	KIVI Channel 6 – Meridian
KAID Channel 4 – PBS	
Radio	
KBOI-AM-670 – Boise	KBSU-AM-730 (NPR) – Boise
KGEM-AM-1140 – Boise	KIZN-FM-92 Country – Boise
KTSY-FM-89.5 – Caldwell	KQFC-FM-98 Country – Boise

A series of newsletters and project specific flyers were mailed to approximately 600 individuals, organizations, agencies, American Indian Tribes and elected officials.

- November 2001 (Newsletter on RMP process and scoping meeting schedule).
- March 2002 (Newsletter on scoping comments and call for Special Designations).
- August 2002 (Newsletter on Issue Development).
- November 2002 (Newsletter on Planning Criteria, Desired Future Conditions and meetings).
- March 2003 (Newsletter on Public Involvement, Desired Future Conditions and Alternatives).
- August 2003 (Newsletter on Alternative Development and public meetings).
- June 2004 (Newsletter on Preliminary Alternatives, Route Designations and public meeting schedule and process).
- August 2004 (RMP Update on Preliminary Draft Alternatives).
- December 2004 (RMP Update on schedule and staffing changes).
- June 2005 (Newsletter on Route Designations, Mid-Course Assessment, Proposed

Alternatives and schedule for Traveling Coffee Shops).

- December 2005 (Newsletter on the RMP Process and an Outline of the Four Alternatives).
- June 2006 (Newsletter on availability of the NCA Draft RMP/EIS).
- 2007 (Newsletter announcing availability of the Proposed RMP/Final EIS and Protest Procedures).

6.9 RESPONSE TO COMMENTS

During the public comment period, 17 individuals and/or groups provided comments relative to the Draft RMP/EIS. These comments, which are paraphrased for brevity and to reduce redundancy, were sorted by topic and include the BLM response to each. Comments concerning general editorial changes (i.e., spelling, punctuation, etc.) were incorporated in the document, but are not included as a comment/response. Original letters (without attachments) have been included as Appendix 20. Some of the comment letters provided additional information as attachments to their letters. The attachments may be viewed during regular business hours at the BLM Boise District Office, 3948 Development Ave., Boise ID 83705.



LETTER NUMBER CROSS REFERENCE			
Letter Number	Last Name	First Name	Organization
1	Nielsen	Rep. Pete	House of Representatives State of Idaho
2	Binder	Angelia M.	Mountain Home Air Force Base
3	Reichgott	Christine	U.S. EPA Region 10
4	Cook	Jeff	Idaho Department of Parks and Recreation
5	Swanson	John R.	Individual
6	Whitlock	Clair	Snake River Raptor Volunteers, Inc.
7	Taylor	Bill	Idaho State 4x4 Association
8	Richards	Jeff	PacifiCorp
9	Culver	Nada	The Wilderness Society
10	Steenhof Kochert	Karen Michael N.	USGS Snake River Field Station Forest and Rangeland Ecosystem Science Center
11	Taylor Davidson	Bill Nate	Idaho State 4x4 Association
12	Black	Doug	Joe Black and Sons
13	Nordstrom	Jenifer	Western Watersheds Project
14	Belt	Doug	Western Elmore County Recreation District
15	Turner	Terry	Military Affairs Committee
16	Smith	Bradley	Idaho Conservation League
17	Chatburn	John	Idaho Department of Agriculture

Cultural Resources Management

Comment: Sec. 4.2.2, page 4-4: Natural weathering and erosion are adverse effects, as is neglect. Adverse effects to cultural resources must be mitigated, no matter the cause, as required under the National Historic Preservation Act, and protected as required by the Archaeological Resources Protection Act, and other cultural resource laws. There is an ongoing tolerance, and seemingly acceptable current and anticipated level of adverse effects to cultural resources throughout this entire section. (Ltr 2)

Response: Section 4.2.2 includes an assumption that cultural sites would continue to be impacted by natural weathering and erosion. As a minimum, Bureau of Land Management (BLM) must comply with cultural resource laws and regulations (Appendix 2). To the extent possible, we will attempt to reduce weathering and erosion by improving the ecological conditions in the NCA. However, even in those situations where we have the greatest success, weathering and erosion will still occur. These are natural processes over which

BLM has no control. For significant cultural resources BLM may undertake specific protective measures. These measures would be site specific and would not require a Resource Management Plan (RMP).

Comment: Idaho Army National Guard (IDARNG) Activities, page 4-8: Adverse effects to cultural resources from military training (and from all proposed actions) must be identified and mitigated. Expansion of an impact area could only occur after Cultural Resources sites are mitigated. (Ltr 2)

Response: None of the alternatives proposes expansion of the Impact Area. BLM has proposed expansion of the Orchard Training Area (OTA) under two of the alternatives. The referenced section discusses only unidentified cultural resources, the impacts to which would also be unknown. Any development would involve cultural resource clearance consistent with laws and regulations. The site-specific impacts to cultural resources will be addressed through monitoring and mitigation. The IDARNG has a very active cultural resource program that includes surveys, monitoring,



education and when necessary, mitigation. See Affected Environment (IDARNG 2.2.12 Cultural Resource Management)

Comment: Cultural and Tribal Table 3.1 Last Management Action: We believe education of the public regarding cultural resources to be very important. We think interpretation can be done in a manner that will not jeopardize the integrity of sites while still relating the relevance of sites to today's world. This can be done regardless of whether the site/resource is pre-historic or historic. (Ltr 6)

Response: The BLM also believes that public education is important; however, when sites are interpreted, some religious or research values are traded off for values of public education and interpretation. There is a fine line between interpretation that increases respect and appreciation and interpretation that results in vandalism through exposing sites to the public. There is concern that the interpretation of cultural sites will increase vandalism and lead to the loss of some of the intrinsic (religious) values of these sites. Comments ranging from fully supporting interpretation to no interpretation were received. This range of perspectives was analyzed through the various alternatives.

Comment: The RMP fails to commit to inventory and protection of cultural resources. (Ltr 9)

Response: As identified in the planning criteria (Appendix 2), there are numerous laws to provide for the protection of cultural resources. The RMP has identified a Desired Future Condition (DFC) for cultural resources (Section 1.6.2) and management actions have been developed to achieve that condition. BLM will continue to inventory for cultural resources on a project-by-project basis, and complete additional surveys as funding allows.

Comment: The RMP should establish a timeline for conducting a complete inventory of the cultural and historical resources present in the NCA and commit to managing these resources when they are located. The BLM should also complete a Cultural RMP providing for inventory and monitoring to ensure

protection of cultural, historical, and tribal resources. (Ltr 9)

Response: The IDARNG has a Cultural RMP for the OTA that includes monitoring and surveys. The BLM has a Cultural RMP for the NCA and site-specific plans for areas such as the Oregon Trail. These plans will be updated as necessary following the completion of the RMP. A complete inventory of the NCA is important; however, funding is not available.

Energy and Utility Corridors

Comment: PacifiCorp would like to encourage the BLM to leave open the option of wind resource development and be willing to review any future proposals based on the current technology and potential resource impacts. The BLM should not preclude this renewable resource (wind energy) because existing and future technologies for siting and operation of proposed wind turbines and associated facilities may not have a negative impact on raptor populations within the NCA. (Ltr 8)

Response: Decisions can only be made based on the most current state of technology. Based on research and monitoring of wind developments worldwide, a significant amount of data suggests that these developments can adversely affect raptor populations. As such, we have no recourse but to restrict an activity that has the potential to affect the densest nesting raptor population in North America, at the very least until the wind energy industry can show that their developments are compatible with the protection, conservation, and enhancement of raptor populations and habitats, as required by the NCA enabling legislation. We believe this decision will have little effect on the wind energy industry, as Southern Idaho is replete with wind energy sites that are suitable (and available) for development.

Comment: The DFCs for lands and realty include a provision that all wind energy sites would be located within an identified right-of-way use area (DRMP/EIS, p. 1-16). However, this approach is not consistent with the NCA requirements to manage these lands to protect raptors and their prey or with the Record of Decision (ROD) for Wind Energy Develop-



ment on BLM Lands. Wind energy development in the NCA would be inconsistent with the purpose of the enabling legislation to protect raptors, raptor prey species, and their habitat. 16 U.S.C. [section] 406-iii(5)(D). In addition, wind energy development is prohibited by the ROD governing wind energy development on BLM lands. The RMP should state that wind energy development is not permitted within the NCA. (Ltr 9)

Response: DFCs were developed by the public during the initial RMP scoping process. Although BLM made a commitment to carry the DFCs forward throughout the planning process, BLM later determined that wind energy development was incompatible with the purposes of the NCA, which rendered that portion of the DFC moot. As such, wind energy developments will not be allowed.

As for energy corridors, the alternatives propose the continuation of the existing corridor, as well as new corridors. The preferred alternative in the Final RMP will include a revised energy corridor proposal that is consistent with the WWEC Study.

Comment: We request that BLM consider not only our existing rights and uses but the potential for future energy development, which would require ROW on federal land identified in the EIS and RMP for NCA. PacifiCorp believes that the EIS and RMP should better emphasize and promote issues related to electrical energy development. PacifiCorp's existing rights must be recognized and maintained. The company requests that we be notified if lands are planned for disposal. (Ltr 8)

Response: All land use proposals, whether RMP or project-level, are subject to valid existing rights. BLM will continue to recognize rights that have been previously granted to access, develop, and maintain various facilities. If public lands are proposed for disposal, affected parties are provided an opportunity to comment on the proposal, and land ownership is always transferred subject to valid existing rights.

Comment: PacifiCorp has concerns about granting additional rights-of-way (ROW)

within existing utility ROW or adjacent to an existing ROW. PacifiCorp has concerns about the potential for conflict and overlap when a new ROW is added to a utility corridor. PacifiCorp recommends the EIS and final RMP include guidelines for ROW clearances. For transmission lines, we recommend a ROW width of at least 100 feet. To avoid conflicts and overlaps, BLM should adopt procedures that require all existing entities to be notified when there are plans for an applicant to install a new ROW in a utility corridor to be sure the issues do not conflict with each other. (Ltr 8) The RMP should include the definition of an Electrical Emergency Condition. (Ltr 8)

Response: Applications for ROW on public land are reviewed by BLM through a site-specific environmental analysis, which includes an opportunity for potentially affected parties, such as other right-of-way holders, to review and comment on the proposal. Since adequate clearance heights and widths between facilities could vary significantly depending on the location and type of facilities, there appears to be no benefit in prescribing fixed ROW clearance guidelines. Site-specific conflicts between authorized and proposed right-of-way facilities will continue to be resolved during the application process. "Electrical Emergency Condition" is an industry term that BLM does not use, and does not need to be included in the RMP.

Comment: Table 3.1, page 3-68: Placement of a Utility Corridor south of the Snake River immediately adjacent to the northern boundary of Saylor Creek Air Force Range, as described in Alternative C, could negatively impact use of the Military Operating Areas and training ranges. Placement of a Utility Corridor - 1-2 miles south of Mountain Home Air Force Base (MHAFB) could negatively impact aircraft operations. (Ltr 2)

Response: To be consistent with alternatives proposed in the WWEC study, Alternative D has been amended to include an energy corridor south and west of the Snake River. The specific alignment was discussed with and agreed to by Air Force representatives. The proposed corridor would run east and west



about two miles north of the Saylor Creek Bombing Range, and would then run north-west on the west side of Highway 78. (See Lands Map 2)

Comment: We urge a prohibition of cell towers be included in the Rational section until there is data on impacts on raptors that shows no effect. (Ltr 6)

Response: We are unaware of research that shows that cell towers (generically) have a significant effect on raptors. However, if information to that effect is forthcoming in the future, the RMP can be amended to exclude them. Until then, BLM has discretionary authority to not authorize construction of facilities that an environmental analysis finds would adversely affect raptors (or other sensitive resources).

Comment: PacifiCorp generally supports most components of alternative D but has concerns with the no new energy corridor and that all transportation systems "would be located within the existing utility corridor" (pg 3-68 table 3.1). PacifiCorp would prefer to see alternative D include the new energy corridor as proposed in alternative C and continued use of existing road network transportation language as described in alternative B (pg 3-65). Please refer to the enclosed table for our extended comments on the Draft Resource Management Plan (DRMP). (Ltr 8)

Response: Proposals in the RMP are subject to valid existing rights. The referenced language refers only to new utility transportation systems being located within the existing corridor. PacifiCorp would be allowed continued access to their facilities, as provided by their existing right-of-way; however, the specific alignment of that access may be affected by the route designation process. To be consistent with the WWEC Study, Alternative D has been amended to include an energy corridor south and west of the Snake River.

Comment: PacifiCorp recommends that the BLM take active steps to work with stakeholders at the federal, state, and local level to expand the concept of federal Corridors to

statewide utility corridors that include state and local government lands. These corridors should be identified in RMPs as they are updated or renewed. In addition to addressing existing energy needs, the established of statewide utility corridors must take into consideration reasonable foreseeable development. (Ltr 8)

Response: As stated above, Alternative D has been amended to include a utility corridor south and west of the Snake River, much like that originally proposed in Alternative C. This change was initiated for the purpose of consistency with proposals being analyzed in the WWEC Study, which is evaluating future energy corridor needs across the entire western U.S. and which would automatically amend all affected land use plans.

Comment: PacifiCorp recommends that the BLM designate areas that are currently occupied by high voltage electric transmission lines as energy corridors. The existing 500 kV line occupies a 160' ROW and this route as well as 1/4-1/2 mile wide area on either side of the line should be designated as an energy corridor for future uses. This designation would be in addition to the other energy corridor alternatives proposed in the RMP. (Ltr 8)

Response: Energy corridors will not be designated along existing transmission lines simply because the lines already exist. The purpose for energy corridors is to provide locations for future utility development, while at the same time, protecting and conserving sensitive resources and resource uses.

Comment: The RMP should include a specific provision stating that ROW facilities will not be placed adjacent to each other if issues with safety or incompatibility or resource conflicts are identified. All utilities must be placed so as to meet reliability and safety standards, particularly with an eye toward reducing the risk of losing all lines due to a common disaster (lightning strike, earthquake, etc.) within a single corridor. The Western Electric Coordinating Council recommends that that interconnected transmission systems should be planned to avoid outages due to the



loss of any two-transmission circuits in a common corridor. (Ltr 8)

Response: This is a project-related issue that needn't be addressed at the RMP level. Applications for ROW on public land are reviewed by BLM through a site-specific environmental analysis, which includes an opportunity for potentially affected parties, such as existing right-of-way holders, to review and comment on the proposal. Since adequate clearance heights and widths between facilities could vary significantly depending on the location and type of facilities, there appears to be no benefit in prescribing fixed guidelines for ROW clearances. Site-specific conflicts between previously authorized and proposed right-of-way facilities will continue to be addressed and resolved during the application process.

Comment: Lands Map 3 – avoidance area – The map does not show some existing facilities. PacifiCorp is concerned that the proposed avoidance area could include portions of its existing 500 kV transmission line right-of-way. The avoidance area should not include the existing line; it should allow for designation of a 1/2 mile wide energy corridor that could accommodate future needs. Lands Map 4 - the avoidance area appears to include the additional utility corridor alternative B. T1S R1W and T2S R1W just north of the Snake River. Avoidance area should be amended to exclude the new utility corridor shown as alternative B. Lands Map 5 - the avoidance area appears to include the additional utility corridor alternative B. T1S R1W and T2S R1W just north of the Snake River. Avoidance area should be amended to exclude the new utility corridor shown as alternative B. (Ltr 8)

Response: There is no need for the avoidance area maps to show existing facilities, since the alternatives affect only future utility developments, and then only major developments. The utility corridor in Alternative B lies immediately adjacent to the boundary of the avoidance area, and the affected maps have been corrected to reflect this. There is no conflict on Lands Map 5, since the utility corridor shown in Alternative B would not exist in Alternative

C. Alternative C includes only the proposed corridor south and west of the Snake River.

Comment: Alternative C with 187,200 acres of Visual Resource Management (VRM) II classification appears to strongly conflict with Alternative B Proposed utility corridor location. One of the objectives of a VRM II classification is that, "management activities may be seen, but should not attract the attention of the casual observer", as defined on page A-163. Therefore, the utility corridor presented as Alternative B would be in direct conflict with meeting the objective Alternative C for VRM

Alternative D with 298,600 acres with VRM III classification could conflict with Alternative B Proposed Utility Corridor location. Class III VRM categorically states that any management change to the landscape should be "subordinate to the existing characteristic landscape. Structures located in the foreground distance zone (0-1/2 mile) often create contrast that exceeds the VRM class." (pg. A-163). The Proposed Utility Corridor for Alternative B could also be in conflict with the viewshed of 1-1/2 mile. (Ltr 8)

Response: Proposals within a specific alternative are evaluated only against the objectives of that specific alternative, and thus, cannot conflict with proposals in another alternative. The analysis of different alternatives is necessary to determine potential impacts and to identify a preferred alternative and its ability to meet the DFCs. We would only have a concern if proposals within the same alternative were in conflict.

Comment: Timing and spatial stipulations for sensitive biological resources should be regarded as guidelines only and not as definitive dates and distances. A one-size fits all approach puts an undue burden on the applicant. The Agency should present recommendations for controlling surface disturbing and disruptive activities as guidelines, not as mandates. (Ltr 8)

Response: The RMP contains no timing or spatial stipulations for sensitive biological resources. In the criteria proposed for evaluating routes during the route designation process,



distances from various resources were identified as triggers to denote a potential need for more critical analysis. However, the distances were not meant to be stipulations to be imposed on authorized land uses.

Comment: Recreation Alternative B: PacifiCorp must be allowed access to inspect, maintain, operate, or repair its structures and facilities without vehicle access restrictions. Any special management designations should not preclude or impede any existing uses, rights or future reauthorizations. (Ltr 8)

Response: Any and all management actions and special designations proposed in the RMP would be imposed subject to valid existing rights. As such, under all alternatives, PacifiCorp would retain the authority under their BLM right-of-way to access, operate, maintain, and repair their existing facilities.

Comment: The preliminary map of proposed corridors WWEC Study appears to show a corridor running along the southern edge of the NCA, similar to that shown for Alternative C on Lands Map 2. DRMP, p. A-101. BLM should encourage the WWEC PEIS team to utilize this existing corridor as opposed to designating a new corridor near or through the NCA. National Conservation Areas and critical wildlife habitat are two such areas; both factors are present in this situation to guide against permitting any additional corridors to be designated in the NCA. (Ltr 9)

Response: Because ongoing development in the region will require additional electrical transmission lines and petroleum pipelines, the most appropriate locations for these future facilities must be determined. It is desirable to have physical separation of energy corridors for safety and health, as well as for system redundancy. Thus, to be consistent with the WWEC Study, Alternative D has been modified to include an energy corridor located south and west of the Snake River, much like that proposed under Alternative C, with a slight modification to reduce impacts to the Saylor Creek Bombing Range air space restriction (Lands Map 2). Most of the proposed corridor would be outside of the NCA. We

believe that the proposed energy corridor is located far enough south of the Snake River to significantly reduce potential impacts to raptors and their prey. However, this analysis will be completed in the WWEC EIS.

Fire and Fuels Management

Comment: We request that the preferred alternative not include 100,000 acres of fuels management projects. (Ltr 13)

Response: Fuels management would be applied to annual dominated grasslands to reduce their susceptibility to wildfire, and thus, help to protect the monetary and ecological investments we make in habitat restoration projects. Shrublands will not be managed with fire; however, greenstrips will be improved, fire breaks will be developed, and intensive livestock grazing and any other necessary measures will be used to return shrubs and perennial grasses to their former dominance in the NCA.

Comment: The DRMP states that the northern harrier is "unaffected by wildfire..." However, the DRMP immediately refutes the conclusion within the very same sentence, continuing ". . . and nest in burned habitats significantly more often than expected. They also prefer to nest in patches of Russian thistle and stands of tumble mustard that have invaded disturbed areas." Therefore, the species is not "unaffected" by wildfire, but is apparently beneficially impacted by wildfire that disturbs shrub overstory and the ecological condition of the range. (Ltr 12)

Response: The narrative has been clarified to state that "Although we have no statistical evidence that northern harrier populations benefit from wildfires, they have been found nesting in burned habitats significantly more often than expected."

Hunting/Shooting

Comment: Shooting would absolutely be allowed on this land [Canyon Creek OHV area], if proper steps are taken to improve safety. Additionally, shooting is allowed almost everywhere adjacent to this land and most anywhere on State and Federal Land. Further, in



compliance with the request from the BLM, shooting will only be allowed in this area if a facility is constructed for the purpose of range shooting. This facility would have to comply with NRA guidelines and all plans will have to get approval from the Idaho State 4x4 Association as well as be open for public input and approval. Any costs, plans or implementation of this facility would be at no expense to the Idaho State 4x4 Association; however, we openly offer our support and volunteer our time towards fundraising for this cause. (Ltr 11)

Response: Although the approximate 300 acre Canyon Creek site is intensively used by OHV users, it will not be designated for off-road vehicle activity unless and until an acceptable management plan is developed by local entities or government that provides for management, maintenance, and supervision. Because shooting in this area would be a major safety issue, particularly if promoted for OHV use, an acceptable management plan would stipulate that no hunting or recreational shooting of any kind would be allowed in the area.

Comment: Recreational shooting is not consistent with the purposes for which the NCA was established. The NCA enabling legislation "emphasizes management, protection, and rehabilitation of habitat for raptors and other resource values of the area to the extent consistent with the maintenance and enhancement or raptor populations and habitats." Recreational shooting poses the potential for direct mortality of raptors within the NCA due either to intentional shooting or stray bullets. Recreational shooting also poses the potential to reduce raptor security within the NCA, thereby causing raptors to vacate portions of the NCA. Indirect effects to raptors may result from impacts to raptor prey species in the NCA associated with recreational shooting. (Ltr 16)

Response: We have no data to suggest that recreational shooting is causing harm or jeopardy to raptor or raptor prey populations. Lacking supporting evidence, we will not issue a determination that recreational shooting is incompatible with the NCA-enabling legislation.

Lands Management

Comment: We request that the RMP and ROD include the recommendation to Congress to change the boundaries of the NCA so as to exclude (at least) the entirety of the Browns Gulch Allotment. To this extent, we support the Lands Alternative C, Map 6. (Ltr 12)

Response: The location of the NCA boundary was based initially on the foraging requirements of raptors, with some modification to reflect land ownership and management needs. Proposed boundary modifications along Highway 78 northwest of Grandview, as well as along Pleasant Valley Road south of Boise were included in the DRMP to address the need for enhanced management resulting from increasing resource degradation caused primarily by off-road vehicle activity within and adjacent to the NCA. We have not experienced this issue in the Browns Gulch Allotment to a degree that would warrant a boundary adjustment. A boundary modification proposed merely to benefit a private landowner would be contrary to the intent of the NCA-enabling legislation and as such, your proposal is not included in the Final RMP.

Comment: Lands and Realty 3.1 Management Actions: In the third Management Action we suggest that the phrase - or at least not adversely affect - be stricken. We are concerned that there will not be a net loss of acreage from the NCA after the proposed boundary adjustments are made by the Congress. Of major concern is the need to trade out the state lands for BLM lands outside of the NCA. We are also aware that an existing major exchange proposal for the Boise Front includes the conveyance to private ownership of State Section 16, T. 3 S., R. 1 E. This is a key state section that straddles the Snake River and should be in Federal ownership. We urge BLM to take steps to make certain this section is removed from the Boise Front proposal so it can be acquired when the Lands and Realty portion of the plan is implemented. We also urge the NCA staff to give high priority to implementing the state land exchange portion of the plan. (Ltr 6)



Response: BLM manages a number of resources and programs that could potentially benefit from land consolidation. The phrase “or at least not adversely affect” was included to recognize those instances when BLM might pursue a land exchange for purposes other than improving raptor and raptor prey habitat, for example, to acquire significant cultural resources or recreation values. In those cases, we believe this language will ensure that (at the very least) the exchange will not adversely effect raptors populations and habitats. No wording change needed.

The proposed boundary adjustment in the Preferred Alternative would actually add about 10,000 acres to the NCA, and private and State lands would be unaffected. General support has been expressed for the proposal to adjust the NCA boundary for the purpose of enhancing both public use and BLM management. The boundary adjustment would require an amendment to the NCA-enabling Act, so it is possible that the proposal could change somewhat before the boundary adjustment is written into law.

A land exchange with the Idaho Department of Lands would be a high priority, since it would allow BLM to consolidate land ownership by acquiring several thousand acres of scattered State land in the NCA. The State section you reference, however, is part of the Boise Front Exchange, which in November 2006, became a legislated land exchange under the title of “Idaho Lands Enhancement Act”. As we understand it, the exchange would result in the referenced State section being exchanged into private ownership, and the private landowners would subsequently donate the property to the Peregrine Fund. Since the land is owned by the State of Idaho and is included in a legislated land exchange, BLM has no jurisdiction over disposition of the property.

Livestock Grazing Management

Comment: Livestock Grazing, Alternative C, page 4-69: In what way does removal of grazing result in a moderate to high long-term benefit to perennial communities? Please cite

long-term landscape scale studies that support this assumption. What are the slight benefits to annual communities? Is a benefit to an annual community something that would decrease the distribution and density of annual plants? (Ltr 2)

Response: We believe the positive effects of livestock removal are adequately shown by Anderson and Holte (1981) and Anderson and Inouye (2001), who reported that the removal of grazing for over 25 years at the Idaho National Engineering Laboratory in southeast Idaho led to increased plant vigor, increased availability of seeds, and increased species richness and habitat diversity. We have incorporated these citations into the *Indirect Impacts* portion of the “How Activities Affect Upland Vegetation Resources” section of Chapter 4. The statement regarding benefits to annual communities has been deleted.

Comment: Conclusion-Grazing Alternative C, page 4-99: Eliminating grazing would be highly adverse to what over the short- and long-term? Adverse to grazing or to the landscape? (Ltr 2)

Response: The statement has been changed to read “Eliminating grazing, with the exception of intensively managed grazing for fuels management, would highly adversely affect livestock grazing permittees across the NCA.”

Comment: Livestock Grazing 3.1 Standard Operating Procedures/Management Actions: We suggest that there be a statement in the SOP section Page 3-48 that addresses the need for livestock graziers and the Bureau to work closely to attain the DFC. (Ltr 6)

Response: The RMP deals only with actions that BLM authorizes or otherwise has ownership in. While BLM desires to cooperate with permittees to attain DFC, we cannot require their cooperation.

Comment: We recommend an enclosure be built around occupied slickspot peppergrass habitat in the OTA and Kuna Butte area (to prevent livestock grazing). (Ltr 9, 16)

Response: Large grazing enclosures would not significantly increase protection over and



above the conservation measures contained in the 2003 slickspot peppergrass candidate conservation agreement (CCA). The vast area across which slickspot peppergrass exists in southern Idaho essentially makes grazing enclosures unworkable as a management tool for protecting the entire population. Although we cannot prevent livestock trampling, annual monitoring has shown that implementation of the conservation measures has significantly reduced trampling. BLM will continue to monitor known occurrences of the species and make appropriate adaptive management decisions, as provided for in the 2006 BLM/(U.S. Fish and Wildlife Service) F&WS conservation agreement. If conditions warrant, this could include fencing of specific populations. However, additional fencing would increase the local accumulation of tumbleweeds, which could necessitate prescribed burns to remove the weed build-up. While beneficial for weed removal, prescribed burning could potentially affect nearby slickspot peppergrass plants or habitat

The 2003 slickspot peppergrass CCA provides the most comprehensive set of conservation measures aimed at ensuring that authorized activities do not jeopardize slickspot peppergrass populations or habitats. In its January 8, 2007 news release regarding its decision not to list the plant as threatened or endangered, the F&WS stated that:

“While the quality of some of the plant’s known habitat has decreased, the current population trends do not appear to be significantly influenced by this habitat degradation. It appears that the lack of spring rain is the major limiting factor for the plant’s population growth, but as survey efforts continue, new occurrences of the plant are being discovered.”

Every known slickspot peppergrass element occurrence is monitored annually to determine whether the plant or its habitat has been affected by various land uses, including livestock grazing and off-road vehicles. Further,

the 2006 conservation agreement between BLM and F&WS incorporates an adaptive management process that, based on the results of annual monitoring, identifies triggers for additional restrictions.

Comment: Since the Standards and Guides (S&Gs) are the key tools for allocating forage for livestock and managing vegetation, we urge you to give them prominent attention somewhere in the document. (Ltr 6)

Response: Standards for Rangeland Health and Guidelines for Livestock Grazing Management, which was developed by BLM Idaho’s Resource Advisory Council in 1997, has been included in the Final RMP as Appendix 3. Changes to forage allocations are the result of an adaptive management process that incorporates data from allotment assessment, monitoring, and evaluation.

Comment: The DRMP fails to specify a mechanism to determine changes in livestock permitted use if S&Gs are met on a grazing allotment, or determine changes in permitted use if the S&Gs are not met on such allotment. In other words, what method quantifies such change? Although the document claims that livestock stocking rates will be determined via the "S&G process", such process is not a process which can provide a quantification of livestock grazing capacity. This lack of specificity results in a failure to inform and assess for the public the quantifiable changes in permitted livestock operation that may be predictable within the foreseeable future. (Ltr 12)

Response: An RMP does not determine stocking rates or forage allocations. This is done through an adaptive management process that incorporates data from allotment assessment, monitoring, and evaluation. If an allotment is meeting S&Gs, permitted use would only be increased if monitoring showed sufficient additional permanent forage production to merit an increase in AUMs. The mechanism that would be used if an allotment was not meeting S&Gs is set out in the following regulations. Preference would only be affected if monitoring and evaluation showed that the allocated



stocking rate was not supportable by the allotment's average annual forage production.

Title 43 Code of Federal Regulations (CFR) Part 4100, Section 4180.2 S&G for grazing administration, subsection (c) states:

The authorized officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards and conform with the guidelines that are made effective under this section. Appropriate action means implementing actions pursuant to subparts 4110, 4120, 4130, and 4160 of this part that will result in significant progress toward fulfillment of the standards and significant progress toward conformance with the guidelines. Practices and activities subject to S&Gs include the development of grazing-related portions of activity plans, establishment of terms and conditions of permits, leases and other grazing authorizations, and range improvement activities such as vegetation manipulation, fence construction and development of water.

43 CFR 4110.3 Changes in grazing preference, subsections (a) through (c) state:

- (a) The authorized officer shall periodically review the grazing preference specified in a grazing permit or lease and make changes in the grazing preference as needed to:
 - (1) Manage, maintain or improve rangeland productivity;
 - (2) Assist in making progress towards restoring ecosystems to properly functioning conditions;
 - (3) Conform with land use plans or activity plans; or,
 - (4) Comply with the provisions of subpart 4180 of this part.

(b) The authorized officer will support these changes by monitoring, documented field observations, ecological site inventory or other data acceptable to the authorized officer.

(c) Before changing grazing preference, the authorized officer will undertake the appropriate analysis as required by the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 et seq.). Under NEPA, the authorized officer will analyze and, if appropriate, document the relevant social, economic, and cultural effects of the proposed action.

Comment: 2.2.14 Livestock Grazing. Permitted Use (Brown's Gulch) is erroneously shown as 1,056 AUMs. It is 4,300 AUMs (subject to the Federal Court Order). Please also note that Appendix 9, p. A-35 incorrectly reports that no S&G determination has been conducted for the Browns Gulch Allotment. Appendix 9, p. A-35 reports correctly that our season of use is 3/1 to 2/28, but fails to note that we do not use the Allotment throughout the year, and that we rotate use of areas of the allotment through water manipulation (turning water troughs on and off). (Ltr 12)

Response: Appendix 10 (previously appendix 9) has been amended to incorporate the correct AUM figures with a footnote that clarifies that the actual use and type of grazing system are not identified.

Comment: Many allotments are grazed in the fall and winter, so that the ground squirrels and other small mammals get "first shot" at the year's yearly forage growth, whether it be perennial or annual species, and many of the allotments are not grazed until after the Piute ground squirrels have completed their annual above-ground activities and aestivated/hibernated. Therefore, in (at least) these circumstances, competition does not exist from the viewpoint of the small mammals, because they are already afforded unfettered access to the available forage. What actions will be taken to minimize competition between ground squirrels and livestock? (Ltr 12)



Response: Conflicts between livestock and raptor prey may not be a problem in most allotments; however, the purpose for the RMP is to set the management direction that BLM will follow if and when we need to address this situation in the future. Since the NCA was created “...to provide for the conservation, protection, and enhancement of raptor populations and habitats...” it follows that the primary food source for raptors must be of sufficient quantity and quality to support the resident and migrant raptor populations. Therefore, any action that might tend to reduce that food source must be mitigated. Through monitoring, we would determine whether livestock grazing is affecting ground squirrels. If so, site-specific actions would be taken through adaptive management to minimize that effect.

Comment: The DRMP reports that areas treated under restoration or rehabilitation projects would be rested from livestock grazing until they achieve the desired resource objective. However, the DRMP does not specify what such objective is to be. (Ltr 12)

Response: The DRMP identifies landscape-level DFCs; project-specific objectives are developed to help move toward achieving the DFC. Prior to a vegetation treatment project BLM would develop a project specific restoration plan. The plan would include specifics pertaining to the implementation of the project: i.e., description and rationale for treatment(s); resource objective(s); time of implementation; NEPA documentation (including a site-specific environmental assessment); monitoring protocol(s); and description of quantifiable measurements to be used to define success.

Comment: The DRMP does not specify by what means BLM will quantify the livestock grazing capacity, or make determinations as to related livestock management actions such as rotation use, etc. (Ltr 12)

Response: The DRMP identifies areas open and closed to livestock grazing and does not set stocking rates or determine site-specific management actions, which are actions addressed through the allotment assessment and

evaluation process. That process would employ standard rangeland assessment protocols to quantify forage production, including clipping studies, to determine annual production, and establish initial carrying capacity for the treated area. Available forage would be allocated in accordance with watershed protection, as well as the needs of wildlife and livestock.

Comment: The DEIS fails to address the indirect impacts from livestock associated changes to vegetation and to address livestock grazing in a manner that would make the practice compatible with PL 103-64. In order for the RMP to meet the mandate to make compatibility determinations for domestic livestock grazing within the NCA with the revision of each RMP the BLM must accurately and quantitatively determine how much forage (i.e. forage capacity) is currently available. On top of this, the RMP DEIS must properly allocate that forage to watershed and stream protection, wildlife habitat and food, then to livestock if available. The NCA DRMP and Environmental Impact Statement fail to do this, and therefore violate NEPA and FLPMA. (Ltr 13)

Response: We know of no information that would suggest that, generically, livestock grazing is incompatible with the conservation, protection, and enhancement of raptor populations and habitats. The appropriate question is what level of livestock grazing is most compatible with the purpose of the NCA? That question will be answered through the allotment assessment and evaluation process. RMPs no longer allocate forage, but rather identify which lands are either available or unavailable for grazing.

Comment: The DEIS fails to define what constitutes a sustainable level of livestock grazing that conforms to the requirement to protect, conserve, and enhance raptor habitat within the NCA discussion fails to include allowable use S&Gs and/or objectives that are paramount to achieving or maintaining the above listed standards, including those for sensitive and/or threatened and endangered species. More importantly, the DEIS fails to take the required "hard look" at the impacts of domes-



tic livestock grazing. The DEIS fails to scientifically and accurately determine those lands which are capable and suitable for livestock grazing. The RMP fails to provide for long-term rest to facilitate recovery. (Ltr 13)

Response: We know of no data that shows that sustainable livestock grazing, at some level, is incompatible with the purposes of the NCA. The purpose of the S&G process is to determine what levels, locations, seasons and types of grazing are appropriate. The RMP is a landscape level document that merely identifies lands available or unavailable for livestock grazing.

Livestock grazing has been reduced or eliminated along the Snake River and its tributaries to protect the endangered Idaho springsnail and its habitat. In addition, conservation measures from the 2003 slickspot peppergrass CCA have been incorporated as a management action common to all alternatives to protect and conserve this sensitive species. The emphasis on habitat restoration will benefit raptors as well as the prey populations on which they depend.

As for long-term rest, the RMP states that areas treated for habitat restoration or fuels management will be rested for whatever time is required to ensure the treatments are adequately established and that treatment goals have been reached. The length of the rest period will continue until project objectives have been reached as determined on a project basis through monitoring. We recognize that this will likely take longer than two growing seasons.

Comment: The requirement to focus on improvement of range condition is explicit in the Public Rangeland Improvement Act (PRIA), which provides that the goal of public land range management is to improve range condition. The DEIS fails to address the lowered productivity found in the NCA and to adjust livestock grazing accordingly. The DEIS shows that domestic livestock grazing is not compatible with the purpose of the NCA, and has resulted in many negative impacts to the

ecosystem. This is particularly disturbing because, as the BLM admits, "anything that reduces the already small populations of raptors is especially critical to their survival (Marti 2002, p. 1)" (DEIS p. 2-11). (Ltr 13)

Response: BLM conforms to the requirements of PRIA through the allotment assessment and evaluation process, in which range improvement and subsequent livestock utilization are determined. The RMP does address lower productivity through management actions related to restoration and fuels management. Any changes to grazing permits would occur through the allotment assessment and evaluation process. We disagree that the DEIS shows grazing as incompatible with the purposes of the NCA. Grazing-related impacts to soils and vegetation certainly exist and will be addressed through the allotment assessment and evaluation process. However, these impacts fall short of an incompatible determination.

Comment: Under actual field conditions, light grazing (25% or less by livestock) is most appropriate to meet BLM's mandate for sustainable use and to meet the requirement for conserving, protecting, and enhancing raptor habitat. These utilization rates are the minimum needed to ensure proper functioning condition, which is the minimum acceptable condition. The BLM would do well to require at least minimum compliance with these standards in the RMP until these standards can be evaluated at the site-specific level. (Ltr 13)

Response: As stated above, forage allocations and utilization levels are set during the allotment assessment and evaluation process, not in the RMP.

Comment: Special status species in the project area include peregrine falcon, short-eared owl, and burrowing owl. Domestic livestock grazing is known to have negative impacts to these species that are not discussed in the DEIS. The FEIS should be expanded to include these negative impacts and should show how management of these species complies with the BLM Sensitive Species Manual. (Ltr 13)



Response: Peregrine falcons are spring and fall migrants in the NCA, and are likely not significantly affected by livestock grazing. Burrowing owls prefer open habitat. King (1996) found that 85.3% of occupied burrowing owls nest sites were in open grassland dominated by cheatgrass and tumble mustard. Only 17.6% of the owls had mature sagebrush growing within a 300m radius of their nest burrow. Short-eared owls may benefit from reduced grazing levels, as they are ground nesters and are usually more abundant when ground cover (in which they nest) increases from two consecutive wet springs. However, the NCA biologist has found territorial short-eared owls nesting both within and outside of the big sagebrush enclosure (constructed in 1980 north of Swan Falls) in the years following wet springs. This fact shows that the current grazing level in this area is compatible with the habitat needs of the owls. These observations are based on the NCA biologist monitoring this site a minimum of eight times annually during the breeding season (March to July).

Comment: The removal of livestock from sagebrush communities in less than satisfactory condition should be a seriously considered alternative in the RMP. Anderson and Inouye found that contemporary state-and-transition models do not fit the sagebrush ecosystem because viable remnant populations of native grasses and forbs are able to take advantage of improved growing conditions when livestock are removed. They found further that despite depauperate and homogenous conditions of permanent plots in 1950, after 45 years vegetation had been anything but static, clearly refuting claims of long-term stability under shrub dominance. Mean richness per plot of all growth forms increased steadily in the absence of domestic livestock grazing. Grasses and forbs increased significantly. (Ltr 13)

Response: Complete removal of livestock from the NCA is included as a part of Alternative C, even though livestock removal from areas dominated by annual grasses has not been shown to be an effective tool for restora-

tion. It is highly doubtful that cheatgrass-dominated sites will ever naturally recover in the NCA. There has been no visible change in the population of annual and perennial grasses in livestock exclosures built in 1980 (J. Doremus, pers com.). Cheatgrass production decreases in drier years and increases in wetter years, but for over 25 years there has been no sign that native grass is crowding out cheatgrass in the exclosures. In addition, density and canopy cover of remnant sagebrush stands have not been substantially reduced in the NCA except in areas affected by an aroga moth infestation. We believe that Anderson did much of his work at the Idaho National Laboratory (INL), which lies over 2,500 feet higher and receives more precipitation than the NCA. The NCA lacks the variety of native grasses and forbs found at the INL. The NCA is predominately cheatgrass and Sandberg's bluegrass with scattered squirrel-tail.

Comment: We request that all alternatives in the EIS include a provision for permanently retiring domestic livestock grazing allotments when conditions permit. (Ltr 13)

Response: Livestock grazing at some level is compatible with the conservation, protection, and enhancement of raptor populations and habitats. If an allotment is vacated in the future, we will determine through the allotment assessment and evaluation process whether maintaining the allotment in an ungrazed condition is desirable and meets the purposes of the NCA. The RMP states that the authorized officer will determine through the S&G process when, how, and to what extent livestock grazing will be authorized in a vegetation treatment area once it has been determined to be successful. If warranted, the resulting grazing decision would adjust authorized AUMs to reflect a new level of sustainable forage production. For example, in 1994, a grazing decision retired 2394 AUMs from the Sunnyside Spring/Fall Allotment.

Comment: Areas that are not capable of supporting grazing should be permanently retired. The BLM should address how it will handle the buy-out of grazing permits from willing



sellers by conservation and other organizations, and should work with permittees to identify those who are interested in retiring their permits or being relocated to prevent resource damage. (Ltr 16)

Response: Decisions to designate areas as unavailable for grazing are appropriately included in the RMP, and we have noted those areas where grazing will not be allowed. However, AUM reductions (through buy-outs or other means) are allotment-specific grazing decisions that result from allotment assessment and evaluation.

Comment: The FEIS must address in one or more reasonable alternatives establishing reference areas on all allotments that will not be grazed by livestock in the future. These reference areas need to include landscapes that are comparable with the portions of the allotment that remain authorized for livestock use so as to provide a comparison area for the rate of recovery of areas that do not currently meet standards for rangeland health. WWP recommends that no such reference area be less than 20% of an allotment area, and that to simplify their creation that existing units of allotments be chosen for closure to livestock as ungrazed reference areas to avoid any need for additional fencing. (Ltr 13)

Response: Forage allocation and stocking rates will be determined through the allotment assessment and evaluation process, and will be accompanied by a determination of whether livestock grazing at the determined level is compatible with the purposes for which the NCA was established. There is no requirement, however, to establish reference areas on allotments, or portions thereof. While they may be established on an allotment basis through the assessment and evaluation process, the RMP will not establish reference areas.

Comment: The "Decision Framework" for the FEIS must be enlarged from the DEIS to include the possibility that if the deciding official chooses to continue livestock grazing on these allotments that he or she shall also consider if a lower level of authorized numbers,

season of use, and total AUMs is needed. (Ltr 13)

Response: As discussed above, the livestock grazing section of the RMP states that the authorized officer will determine through the allotment assessment and evaluation process when, how, and to what extent livestock grazing will be authorized in a vegetation treatment area once it has been determined to be successful. If warranted, the resulting grazing decision would adjust authorized AUMs (either up or down) to reflect a new level of forage production.

Comment: The FEIS must address additional more restrictive standards of use for livestock grazing that will ensure the protection and recovery of all springs, seeps, wet meadows and aspen clones in the project area. The BLM appears to be choosing not to protect these areas adequately and an alternative showing how a more restrictive livestock use regime could accelerate the recovery of these areas is needed to comply with NEPA. (Ltr 13)

Response: We agree that springs, seeps, and other riparian areas need special management. However, there are few seeps and springs, and no wet meadows accessible to livestock in the NCA. Also, there are no aspen trees in the NCA. Two springs north of Hammett, Idaho have been diverted into stock water troughs. All other springs and seeps are protected from grazing by not allowing Cattle in the springs and seeps during the growing season. This action is addressed in an agreement with the permittees.

Comment: The FEIS must address in one or more alternative the conflicts between recreational users and livestock in the project area. For example recreation contact with livestock wastes and smells is a topic completely unanalyzed in the DEIS. (Ltr 13)

Response: Potential conflicts between recreationists and livestock was not raised as an issue during the RMP's public scoping process. Conflicts between recreationists and livestock have only been reported from the Snake River Pasture of the Melba Seeding Allotment, which lies immediately upstream from Cele-



bration Park. This conflict is being addressed by reducing the river frontage grazed in the Snake River Pasture from over six to about three miles.

Comment: The FEIS must analyze for each alternative the impacts of the deposition of livestock solid and liquid waste on the ecology of the permitted areas of livestock use including on water quality. Typically cattle and sheep deposit thousands of tons of waste on public lands every year and the Forest service never assesses, as required by NEPA, the effect of that waste on native plants, local ecology, wildlife and microfauna including insects, amphibians, fish and small mammals. (Ltr 13)

Response: As with recreation, the affect of the deposition of livestock solid and liquid waste on the water quality and ecology of the NCA was not raised as an issue during scoping. Furthermore, we know of no information, and have collected no data, that would support such an analysis. However, we have taken steps to reduce or eliminate livestock grazing along the Snake River and its tributaries through conservation measures developed in the Biological Assessment that addressed the potential effects of livestock grazing on bald eagles and the Idaho springsnail.

Comment: The FEIS must analyze for each alternative the impacts on potential wild ungulate numbers if no livestock grazing takes place and if 50% of current livestock grazing use were selected. The FEIS must address for all alternatives the impacts of livestock grazing on hiding cover for raptor prey species as well as the potential numbers of those prey species under differing alternatives. (Ltr 13)

Response: We are unaware of the requirement to assess the impacts of 50% grazing reductions on wildlife. Section 4.2.3. states that livestock grazing has the indirect effect of damaging or eliminating shrubs where livestock concentrate, or when resources are most susceptible to damage (i.e. moist soils). Further, livestock grazing results in trampling or defoliation of forage species. Although we recognize these potential grazing-related proc-

esses, the effects analysis states that implementation of S&Gs at a landscape level, as proposed in the plan, would result in a slight reduction of livestock related impacts to upland dependent species, such as ungulates and raptor prey. The limiting factors; however, for use of the NCA by big game are lack of water and green forage in the summer. The lack of water is being addressed by the placement of water catchments in the area. Green forage in the summer will be improved by establishing perennial bunchgrasses that stay green longer than Sandberg's bluegrass. Also, maintaining a minimal amount of residual litter in annual grass communities would provide minimum food and cover for small mammals and other ground dwelling species.

Comment: Sheep and cattle grazing should be defined as permitted livestock grazing to distinguish DFCs from other goals for large game, wildlife, and wild horses. BLM should ensure grazing conforms to the S&Gs by placing a priority on assessing areas to see if they are in compliance. If the areas are not in compliance, immediate action should be taken to rectify the grazing management. (Ltr 16)

Response: In the NCA, livestock grazing, by definition, includes only sheep and cattle. The NCA would contain no wild horse herd areas in the preferred alternative. By regulation, BLM's process dictates compliance with grazing standards through annual monitoring and subsequent modifications to grazing permits if needed. Permit modifications must occur by the beginning of the grazing season immediately following the issuance of a determination that a standard(s) is not being met.

Comment: The BLM should consider the timing and levels of grazing occurring on the restoration sites post-recovery. About 40-60% utilization is considered moderate grazing, and should be the maximum allowable utilization permissible on the allotments in the treatment areas by any livestock type. (Ltr 16)

Response: This is not an RMP level decision. Post recovery grazing will be addressed through the allotment assessment and evaluation process. The actual level of permissible



grazing would be based on the habitat objectives established for the treated site.

Comment: The BLM should not allow intensive grazing management systems of any kind, whether in riparian locations or in upland locations. Preferably, grazing should be eliminated from riparian areas as delineated by PACFISH S&Gs developed for the Interior Columbia Basin no summer grazing should occur in riparian areas when they are most susceptible to grazing impacts. Grazing should also be eliminated from all riparian areas where water quality standards are not being met in accordance with TMDLs, state water quality standards, and the Clean Water Act. (Ltr 16)

Response: Grazing systems are appropriately implemented through the allotment assessment and evaluation process and are not RMP level decisions. PACFISH standards do not apply to the river system in the NCA. With exception of the 96 miles of Snake River/Bruneau River shoreline, less than five miles of riparian area are located on public lands in the NCA. Most public land riparian areas are protected from livestock grazing by fencing, natural inaccessibility, or agreement with permittees. The only grazing allotment containing an identified riparian area that is actively grazed during the summer season is the Rabbit Springs (00837) allotment. The riparian area in the Rabbit Springs allotment is less than one-half mile in length. The permittee is presently authorized to use the area every other year between August 15 and August 29.

Comment: Livestock grazing schedules should include period(s) of rest during times of critical plant growth and re-growth. Year long grazing should not be authorized. Stocking rates must include consideration of topography, distance to water, forage availability, etc. to determine realistic stocking rates. Stocking rates must also consider long-term weather/moisture history and not overstock lands based upon optimistic single-year events. Mineral, protein, and other supplements, including forage should be placed at least a quarter of a mile away from riparian/wetland areas, springs, seeps, and peren-

nial streams and rivers. The location of such materials must also not impair important biological, geological, paleontological or cultural resources and their locations. (Ltr 16)

Response: The RMP is a landscape level plan and does not identify allotment specific management actions. The allotment assessment and evaluation process will address schedules, stocking rates, etc. All grazing permits for those allotments within the NCA that are known to support viable populations of perennial forage species contain some provisions for rest/rotation. Further, all grazing permits contain stipulations for the appropriate placement of salt/mineral supplement.

Comment: All allotments containing slickspots should be retired. (Ltr 16)

Response: Conservation measures from the 2003 slickspot peppergrass CCA have been imposed on affected grazing permits to promote conservation and protection of slickspot peppergrass. The protections from grazing provided by the CCA conservation measures were part of the basis upon which the USF&WS decided not to list the species as threatened or endangered. As such, if allotments are retired it would likely not be because they contain slickspot peppergrass or its habitat.

Comment: Late spring grazing will not always prevent bunchgrasses from completing their normal growth cycle or automatically lead to failure of the seeding. The final RMP should recognize such variables rather than make generalized statements. (Ltr 17)

Response: This statement is taken out of context. The referenced section (page 2-42) states “When moisture is limiting, late spring grazing can prevent bunchgrasses from completing their normal growth cycle.” We believe our original statement is correct in regards to the effects to bunchgrasses from late spring grazing when soil moisture is limiting. However, we modified the paragraph in the RMP to include the following statement:

“When adequate soil moisture is present after livestock removal bunch-



grasses can still complete their growth cycle. Therefore it is possible to utilize grazing systems that ensure that bunchgrasses are able to set seed every year or most years.”

Comment: Page 2-46 states that heavy livestock use may result in mechanical damage to sagebrush and allow root-sprouting species such as rabbitbrush to increase. Unless the BLM can cite specific examples of where livestock grazing is producing such results on the NCA statements such as these should be deleted. (Ltr 17)

Response: The purpose for Chapter 2 is not to discuss what type of management should occur, but rather to discuss or illustrate what is actually occurring in the NCA as a consequence of current and past management. Regardless of the reasons, we have experienced impacts to shrub communities from concentrated livestock use. However, the referenced sentence has been revised to read as follows:

“Mechanical damage (crushing/breaking) to sagebrush may occur in areas where livestock are concentrated, including salt grounds, watering sites, or areas where livestock are gathered and sorted.”

Comment: On page 2-47, the DRMP states the livestock consumption of cheatgrass may result in reduced soil productivity. Does cheatgrass deplete soil carbon and nitrogen more with the presence of livestock? ISDA suggests that the final RMP cite where this information comes from. It should also be acknowledged here or in the upland vegetation section that livestock grazing on cheatgrass can prevent cheatgrass from seeding if grazed at the right time, thus enabling native grasses an opportunity to establish themselves. (Ltr 17)

Response: Cheatgrass does not deplete soil carbon and nitrogen more with grazing. The referenced text on page 2-47 has been amended to read as follows:

“In most years, livestock grazing has a limited impact on exotic annual plant communities. However, when reduced forage production results from below normal precipitation, excessive removal of annual vegetative cover has led to reduced spring soil temperatures, reduced water-holding capacity, delayed seed germination, and increased soil loss from wind/water erosion.”

Comment: There are some confusing aspects about livestock grazing closures and seasonal grazing restrictions in the description of alternatives in Chapter 3. Alternative B on page 3-49 states that 3,400 acres at Kuna Butte would be closed to grazing and an additional 1,300 acres along the Snake River would have seasonal restrictions to reduce conflicts with spring recreation. Under Alternative D, Kuna Butte would be grazed only for fuels and weed reduction on an as-needed basis as it has been classified as chiefly valuable for purposes other than grazing (pg. 3-50). More information is needed here to justify these actions. Please explain why seasonal restrictions on 1,300 acres are put on the Snake River in Alternative B and not in Alternative D. If this restriction is not in the preferred alternative, is it really necessary have it be a part of another alternative?

Response: Alternatives B and D were meant to be the same except for the change in designation of the 3,400 acre Kuna Butte area. We have corrected the livestock grazing discussion for Alternative D, as well as Livestock Grazing Table 3.1 and Grazing Map 6.

Comment: BLM should disclose how it came to the determination that Kuna Butte is "chiefly valuable for purposes other than grazing." Why are "recreation, special status plants, and cultural resources" ranked above livestock grazing as far as their value on that allotment?

Response: The decision to classify Kuna Butte as chiefly valuable for uses other than grazing took into account the following conditions:



- The area has no boundary or internal fencing, and is bordered by Swan Falls and Kuna-Mora Roads, which represent serious safety hazards for the livestock as well as vehicle occupants.
- The area abuts several dairy farms and the Forrey Heights subdivision, which requires a more intensive herding effort to keep livestock out of those properties.
- The area supports occupied slickspot peppergrass habitat, which requires special management under the 2003 slickspot peppergrass CCA.
- The area contains the historic Boise to Silver City Road, an historic feature that is eligible for listing on the National Register of Historic Places.
- Because of its proximity to the City of Kuna, the area supports unusually large numbers of recreationists, many of whom operate off-road vehicles that disturb livestock.

The above conditions not only make livestock management difficult, but reduce the acreage usable by livestock. As such, permittees have chosen to graze their livestock on the area only once in the past 25 years. This, alone, indicates that the potential costs to be incurred by permittees in managing their livestock on the parcel exceed the value of the forage their livestock could harvest from the area.

Comment: Under the description of the "Livestock Grazing." portion of the alternatives in Chapter 3, we are concerned with the 10-year average time that areas would be rested from livestock grazing after being treated for restoration or rehabilitation (pg. 3-50). Though the DRMP states that this 10-year average is used for purposes of analysis, we feel that it is unnecessary and inappropriate to use this 10-year average even for purposes of analysis. The DRMP even acknowledges that this average is significantly longer than would normally be used. Instead, we suggest that the RMP use adaptive management for analysis purposes to determine when livestock grazing can continue on land that has been restored or rehabilitated. Restoration and rehabilitation pro-

jects can be extremely variable in their effectiveness and success depending on climate, soils, quality of seed, method used, condition of the area being treated, that even attempting to put an average time frame is purposeless. Using adaptive management to determine when livestock grazing should continue will give the BLM and the grazing permittees whom you are impacting more flexibility in making the determination as to when grazing can be re-initiated. (Ltr 17)

Response: We agree that, for any given vegetation treatment, the establishment period can vary greatly. However, for the purposes of analysis, we felt it was fair to assume a 10-year establishment period for upland projects. Although many projects might establish much faster, an average 10-year period would account for those projects that were unsuccessful or only partially successful, which would require follow-up actions that could significantly extend the establishment period. In practice, however, monitoring and adaptive management will be utilized to determine the appropriate time to re-establish land uses in the affected area. The use of monitoring and adaptive management, however, provides no consistent basis upon which to determine the relative effects of the different alternatives.

Comment: The discussions on "Livestock Grazing Management Activities" throughout the plan are an over simplification of the impacts livestock grazing. We suggest that the final RMP recognize that adverse impacts of livestock grazing on resources depends on how livestock are managed; therefore blanket statements about livestock grazing should be avoided. ISDA strongly encourages the BLM to state in this section that these adverse impacts can be mitigated through proper managed grazing and the S&G process. (Ltr 17)

Response: The "How Activities Affect..." sections are not a discussion of impacts, but rather are meant to inform the reader about the mechanisms and processes by which various effects occur. The actual effects of livestock grazing are discussed separately in each resource or land use section. The role of S&Gs and adaptive management in mitigating the



effects of improper livestock grazing has been clarified in Section 2.2.14 to include the following statement:

“...The purpose for S&G assessments is to determine whether allotments or portions of allotments are meeting the eight standards for proper rangeland health. If the assessments determine that one or more standards are not being met, grazing decisions are issued which include measures designed to mitigate the impact and to bring the allotments into conformance with the standards. These changes could include such measures as timing, seasons, duration, etc.”

Comment: The BLM needs to be cautious in the literature cited when discussing these adverse impacts in this section. For example, the RMP cites a study by Kimball and Schiffman (2003) to state that livestock grazing may benefit exotic species that are better adapted to grazing at the expense of native species. The Kimball and Schiffman (2003) study may not be applicable to southern Idaho or to every grazing system. The study was performed in California annual grasslands which is a different system than southern annual grassland with regards to biotic and abiotic factors. The researchers also clipped their plants manually rather than use livestock, which could make a difference in results. Other studies cited in this section have similar weaknesses and limited applicability ISDA suggests BLM carefully consider how it uses its literature cited in this section and others, and their limitations. (Ltr 17)

Response: We believe the study cited is applicable. We cited this study not because we believe the California annual grasslands reflect conditions in southern Idaho, but because annual grasses in arid environments respond much the same way regardless of where they occur.

Comment: Section 4.2.9 misrepresents impacts of livestock grazing to riparian/wetland areas. There are several key elements missing

in the RMP's discussion on how livestock grazing management activities impact on riparian areas and wetlands on page 4-73. The first bulleted item states, "Riparian areas can be affected by grazing in different ways depending on the season of use." How livestock affect riparian areas during a particular season of use also depends on the class of livestock, grazing intensity, duration, herding practices, other available water sources, etc. For example, even during times of high temperatures, sheep will not congregate in riparian areas if properly herded. Also, the last bulleted item of that section states, "Management actions that restrict or eliminate livestock use in riparian areas...would have beneficial direct and indirect impacts on riparian and water resources over the long-term." This, again, goes back to the idea of distinguishing between unmanaged and managed livestock grazing. There is an abundance of literature and technical references that describe grazing management schemes that benefit riparian areas without restricting or eliminating grazing (i.e. BLM Technical Reference 1737-14 1997, Grazing Management for Riparian-Wetland Areas). ISDA suggests this section be rewritten so as to not give the reader the impression that restricting or eliminating livestock grazing from riparian areas is the only way to realize positive impacts. This should also be done in the RMP's discussion on Indirect Impacts of Livestock Grazing Management Activities on Page 4-75. Section 4.2.14 "Livestock Grazing" has the same problem on page 4-96 when discussing indirect impact of livestock grazing to riparian/wetland management activities. (Ltr 17)

Response: The items you mention (class of livestock, grazing intensity, duration, herding practices, other available water sources, etc.) may exacerbate or moderate the processes discussed in the referenced section, but the processes still operate at some level. Section 2.2.14 has been clarified to show there are no sheep grazing permits that affect riparian areas in the NCA. In addition, the first sentence of the last bulleted item has been modified to read as follows:



“Management systems or actions that use grazing to modify vegetation in a prescriptive manner, including those discussed in BLM Technical Reference 1737-14, would have beneficial direct and indirect impacts on riparian and water resources over the long-term.”

Comment: In the discussion on livestock grazing and springsnails, page 4-25 states, "Livestock grazing restrictions and closures would benefit springsnails slightly at the landscape level over the long-term." There is no peer-reviewed literature to substantiate this claim. The literature contained in the two Biological Assessments cited in this paragraph have neither quantitative nor qualitative data to support adverse impacts on springsnails from grazing. The alleged threats of livestock grazing to springsnails in this literature are merely presumed. We suggest this paragraph and the paragraph on page 4-26 regarding springsnails and livestock grazing, be rewritten to recognize the limitation of data on adverse impacts of livestock grazing to springsnails; that impacts of livestock grazing on springsnails are not known. (Ltr 17)

Response: We know of no scientific literature discussing the effects of livestock grazing on Idaho springsnails. We based our discussion of potential effects to Idaho springsnail on what we believe is a reasonable and prudent assumption that fewer livestock in areas along the river and its tributaries will result in less soil disturbance, more residual standing litter, greater sediment capture, and reduced erosion and runoff. Direct benefits include reduced numbers of snails being crushed by livestock wading in and along the shoreline. Indirect benefits stem from fewer snails, eggs, and snail habitat being buried under or adversely affected by silt. We will continue to manage under this assumption until research or monitoring shows it to be in error. The last sentence in the subject paragraph has been changed to read as follows:

“...Lacking scientific evidence to the contrary, it is assumed that fewer livestock in areas along the

Snake River and its tributaries will result in less soil disturbance, more residual standing litter, greater sediment capture, and reduced erosion and runoff. Direct benefits include reduced numbers of snails being crushed by livestock wading in and along the shoreline. Indirect benefits stem from fewer snails, eggs, and snail habitat being buried under or adversely affected by silt. We assume these benefits to be landscape-wide, since only about one-eighth of existing riparian areas are now available for livestock grazing.”

Comment: On page 4-33, under "Livestock Grazing Management Activities," the DRMP states, "A lack of livestock grazing would result in a general improvement in habitat condition and quality over the long-term, which would be...slightly beneficial for SSA in annual communities." This paragraph neglects to mention the short-term benefits to livestock grazing in annual communities, which would not be realized under Alternative C. Page 4-16 states, "Reducing fuels through grading, plowing or intensive grazing along fuel breaks would result in additional short- and long-term impacts" such as preventing fire spread and "thereby precluding native habitat loss." we strongly encourage the BLM to add this language to the aforementioned paragraph on page 4-33. (Ltr 17)

Response: The following wording has been added to the referenced section. “A lack of grazing would allow hazardous fuels to accumulate, which could result in larger and more intense wildfires that have locally significant impacts on SSA and their habitat. Reducing fuels through grading, plowing, or intensive grazing along fuel breaks would result in additional short- and long-term benefits, such as reducing fire spread and associated habitat loss.”

Military Operations

Comment: Table 1.2, page 1-12: The USAF does not train in the NCA. The topic is



IDARNG and comments should pertain to the Guard's use of NCA. (Ltr 2)

Response: Table 1.2 reflects the Scoping Issues that were developed by the public during the scoping meetings. During this process, the Tribes brought forward the notion of Air Force activities having an impact on the entire area underlying their Military Operations Area. We agreed early on in the scoping process not to amend issues, but to address them to the extent possible. We have inserted a parenthetical statement at the end of the Tribe's issue, stating that there are no MOAs in the NCA.

Comment: Sec. 2.2.12, page 2-55: Military Operations Areas are not addressed in the Affected Environment or in the alternatives. If this is a non-issue, it should be stated that this issue will not be addressed by this Management Plan and EIS. (Ltr 2)

Response: Wherever "Military Training" is mentioned, it references only the activities of the IDARNG. We have clarified this in the Final RMP by adding the following comment in Section 2.2.12 of the Affected Environment Chapter: "Current training in the OTA is primarily conducted by IDARNG units, with National Guard and Reserve units from other States permitted on a space available basis. The MOU excludes active duty military units (such as Mountain Home Air Force Base) from training on the OTA except in support of the IDARNG."

Comment: Table 3.1, page 3-63: Military Training Sites should be avoided according to weapons safety footprints, as applicable. (Ltr 2)

Response: In describing the distance from training facilities, the safety zone is considered part of the facility. The distance represented in the table is beyond the safety zone.

Comment: IDARNG 3.1 Management Actions: We could not find any reference to the IDARNG taking responsibility for restoration of depleted vegetation sites within the OTA. We believe they should finance any work inside the OTA. It is also not unreasonable to

expect the IDARNG to help fund projects outside the Area. (Ltr 6)

Response: The IDARNG is mandated only to rehabilitate areas that they have disturbed through their activities. Through their environmental and fire suppression programs the IDARNG works to minimize the effects of their activities to natural resources (IDARNG 2.2.12) As stated in the RMP (4.2.8 Upland Vegetation), up to 80,000 acres of the OTA cannot be restored because of IDARNG's need for continued live firing and off-road military maneuver training. This is an unmitigated impact. BLM will work with the IDARNG to address the ongoing effects of IDARNG activities and to seek opportunities to resolve this unmitigated impact.

Comment: Ensure ongoing management to protect resources in the Orchard Training Area. (Ltr 9)

Response: We cannot respond to your comment without more specifics about which resource protections you believe are lacking. IDARNG conducts military training activities in the OTA under the authority of the 2002 BLM/IDARNG MOU. The MOU imposes on IDARNG the requirement to manage natural and cultural resources in the OTA pursuant to federal laws and regulations, including the NCA-enabling Act. Further, IDARNG is a signatory to the 2003 slickspot peppergrass CCA, which imposes on them the same management restrictions as all other signatories to the CCA.

Comment: Our concern with the military boundary changes lie with the impact this boundary change will have on the IDARNG's ability to monitor slickspot peppergrass and protect its habitat from fire. It is unclear in the preferred alternative if the IDARNG will be allowed to continue monitoring those populations of slickspot peppergrass that occur in the excluded military training area if it is removed from military training. Management decisions must ensure that the agency that has contributed the greatest amount of knowledge to slickspot peppergrass be allowed to continue monitoring the species. BLM should enter into



a MOU with the IDARNG to ensure that the IDARNG continues to monitor slickspot peppergrass habitat and populations in the Bravo area that are excluded from the training area. In addition, the MOU should specify that the IDARNG will continue to receive adequate funding in order to have the capability to quickly respond to all fires that threaten slickspot peppergrass habitat. (Ltr 9)

Response: Under the preferred alternative, IDARNG would not be excluded from the Bravo Area or any other part of the OTA. Their training activities, however, would be restricted, and would have to be conducted in a manner that protects sensitive resources, including slickspot peppergrass. The existing MOU between BLM and IDARNG specifies that IDARNG will:

“Conduct all training activities in accordance with [the NCA-enabling Act] and other applicable federal laws and regulations, as well as any Conservation Agreements and Conservation Strategies to protect special status plant and animal species.” Emphasis added.

The IDARNG environmental staff will continue to monitor cultural sites, as well as slickspot and Davis peppergrass, giant fairy shrimp, and other special status species to ensure that the above requirement is carried out. The MOU also requires IDARNG to suppress and control all fires occurring in the OTA. BLM, however, has no control over the State of Idaho and the National Guard Bureau funding mechanisms that provide for this capability.

Comment: We support restricting IDARNG training activities on 22,300 acres within the OTA to protect existing shrub communities, but providing additional acreage outside of the OTA is not compatible with the purposes for which the NCA was established and we request that this expansion be removed from the preferred alternative. (Ltr 13)

Response: The net result of the preferred alternative is a reduction of military training activities on thousands of acres, which we be-

lieve is highly beneficial ecologically. As such, when assessed at the landscape level, we maintain that the preferred alternative is compatible with the purposes of the NCA. The 4,100 acres that would be added to the OTA is an area that is already substantially degraded from wildfire, and as such, has reduced value for meeting the purposes of the NCA. Additional IDARNG presence in this area for fire suppression purposes, as well as their environmental management programs, is important for reducing impacts. Reducing the impacts on 22,300 acres and increasing impacts on 4,100 acres of degraded habitat is a net benefit to the overall management of the NCA.

Comment: Sec. 2.2.18, page 2-73: In reviewing MHAFB real estate records, the area was found to be a BLM permitted landfill site for MHAFB. The section should be re-written to reflect this new information. (Ltr 2)

Response: This section has been rewritten to reflect that the area was previously used as a landfill.

Monitoring and Inventories

Comment: Indicators should be provided in the implementation plan, so monitoring can be adequately measured. (Ltr 4)

Response: Chapter 5 discusses triggers and indicators. These are somewhat general in nature and are viewed on a landscape wide basis. As a part of implementation, site specific indicators will be used that address local impacts resulting from specific implementation actions, such as recreation facility development

Comment: The RMP objective for Recreation is to provide a diversity of quality, resource based recreation opportunities. Use estimates do not measure quality. A better indicator/trigger for adaptive management would be to ask, Are quality recreation opportunities on a downward trend? A visitor survey could help answer this question. (Ltr 4)

Response: Table 5.2 has been modified to include “visitor satisfaction surveys”.

Comment: We were surprised and concerned that the section on monitoring in Chapter 5 did



not call for any monitoring of raptor populations. Managers must define and monitor "success" at all trophic levels. The monitoring section in Chapter 5 does mention monitoring the two main prey species; we will be curious to see the specifics of the proposed approach, as prey monitoring can be very expensive. (Ltr 10)

Response: There will be monitoring at all trophic levels, and Table 5.2 has been modified to include raptor population monitoring.

Comment: It is critical for the planning team to review and update the draft information to reflect current conditions in Chapter 2, Affected Environment. We are also concerned with the DRMP's proposed implementation. A 20-year time frame for a comprehensive plan is a long time. Natural and social conditions can significantly change in 20 years. Adaptive management requires monitoring. These monitoring reports really determine whether an RMP needs to be amended or revisited. (Ltr 4)

Response: The final RMP/EIS includes the most current data available to the BLM. Information about the giant fairy shrimp was added to Chapter 2. Chapter 5 discusses monitoring and identifies triggers that will be used as a part of our adaptive management process to determine when management changes are needed to achieve the objectives. Although RMPs have a 20+ year life, there is a mechanism for amending the plans, if and when conditions warrant.

Purpose and Need

Comment: There exists no valid "Purpose and Need" to pursue the RMP, or certainly anything other than the "no action" alternative. The DRMP in large part fails to specify intentions relative to each resource, i.e., which grazing Allotment(s) - the actions and impacts are expected to occur, and this lack of specificity deprives the public of the opportunity to assess the accuracy of the "Purpose and Need" for the DRMP (Chapter 1), the purported Affected Environment (Chapter 2), the appropriateness of the Alternatives (Chapter 3), and the veracity of the purported Environmental Consequences (Chapter 4). (Ltr 12)

Any activity which does not meet the NCA legislation and other applicable laws should be discontinued within the NCA. In addition, maintaining and improving wildlife habitat and restoring degraded range conditions should be reflected in the purpose and need. (Ltr 13)

Response: Because it is a landscape level document, the RMP lacks the site-specific analysis found in project or site specific environmental documents. Section 1.3, Need for the RMP, states "Among the issues and concerns to be addressed in the NCA are: "...landscape level changes in ecological condition caused by the loss of shrub habitat...the expansion of invasive and noxious weeds contributing to landscape wide changes in plant communities and ecological processes." As stated in Section 1.2 of the DRMP, the 1993 enabling legislation stated that the NCA was to be managed for the conservation, protection, and enhancement of raptor populations and habitats. In essence, this requires the NCA to be managed for a dominant use, which is a significant change from the existing land use plans that prescribe multiple use management. However, dominant use does not preclude other uses. The enabling legislation allows for diverse and appropriate uses consistent with the purposes of the NCA. The emphasis on dominant use versus multiple use justifies a standalone plan for the NCA. The fact that the RMP will consolidate management from five different land use plans merely underscores the need. Maintaining and improving wildlife habitat and restoring degraded range conditions are processes that allow BLM to meet the legislative requirement to conserve, protect, and enhance raptor populations and habitats.

Comment: We understand the need to balance resource uses and assure they are sustainable over the long-term even when some uses may be in conflict. The document demonstrates that raptor conservation, protection and enhancement can be in conflict with recreation, military training and livestock grazing activities. Because Alternative C would provide the most protective management measures for the



NCA, we recommend that BLM select this alternative. (Ltr 3)

Response: As stated in Section 1.2 of the DRMP, the 1993 enabling legislation stated that the NCA was to be managed for the conservation, protection, and enhancement of raptor populations and habitats. In essence, this requires the NCA to be managed for a dominant use, which is a significant change from the existing land use plans that prescribe multiple use management. However, dominant use does not preclude other uses. The enabling legislation allows for diverse and appropriate uses consistent with the purposes of the NCA. Alternatives B, C and D meet the purposes for which the NCA was established. Alternative C has the greatest social and economic impacts because of the loss of livestock grazing and limitations on the IDARNG.

Recreation Management

Comment: Other new recreation activities such as geocaching and river surfing can increase much faster than the general population growth. The RMP needs to be adaptive enough to address new and emerging recreation activities over the next 20+ years. (Ltr 4,)

Response: While the increase in population may not be directly correlated with an increase in recreation use, the demand for recreational opportunities will increase as more people move into the Treasure Valley and as new recreational activities emerge. The overall goal of the NCA plan is to allow continued recreation while protecting raptor populations and their habitat. We believe that the identified management actions along with adaptive management monitoring have provided the needed flexibility. In most areas, we have not identified a level of detail that would emphasize a given recreational activity but rather identified an “experience” such as semi primitive motorized or a desired resource condition. This should provide sufficient flexibility to meet future needs. If a specific recreation event is determined to be more than casual use, then a Special Recreation Permit (SRP) would be required. Conditions under which a SRP is required are detailed in BLM Manual 2930-1.

Comment: We suggest that you have an option for finding and developing other recreation sites as the demand grows with our ballooning population growth on or near the NCA. (Ltr 4, 6)

Response: We believe that the areas indicated for development will meet the needs into the foreseeable future. However, we have added the following wording to alternatives B and D: “As necessary, small secondary sites could be developed to accommodate the ever increasing demand for recreation”. Future site-specific facility development will be considered as part of the overall objective of enhancing resource protection, providing for visitor health and safety, and providing for user demands.

Comment: BLM ROS definitions - The Idaho Department of Parks and Recreation recommends that semi-primitive be deleted from the RMP and just use non-motorized to describe these areas. (Ltr 4)

Response: Within the BLM ROS system there are two categories for a non-motorized experience; semi primitive non-motorized and primitive non-motorized. We concur that there is very little opportunity for a primitive non-motorized experience within the NCA. However, we believe there is opportunity for a semi-primitive non-motorized experience and therefore we propose managing the area for that type of experience (Appendix 17).

Comment: The DEIS states "Alternative C would provide the greatest diversity of recreation opportunities." on Page 4-108. Alternative C does not provide the greatest diversity of recreation opportunities. Alternative D provides more diversity because it provides on and off route non-motorized (hiking and equine use) travel. Alternative C greatly restricts existing motorized access in the NCA. Alternative D provides a balance between motorized and non-motorized access. (Ltr 4)

Response: The level of recreational diversity differs little between the various alternatives. While Alternative C provides for more non-motorized areas compared to Alternative D, the vast majority of the NCA (97 percent) is still accessible for motorized opportunities.



We believe this provides users with additional recreational diversity not found in Alternative D.

Comment: The NCA does not offer any semi-primitive non-motorized opportunities. The term should be changed to non-motorized opportunities. (Ltr 4)

Response: The DRMP uses traditional BLM terminology for the Recreation Opportunity Spectrum (ROS). These terms divide the ROS into six categories ranging from urban to primitive. While the Halverson Bar area may not meet the strict definition of semi-primitive non-motorized, it was the only term available, using traditional ROS terms, to describe the fact that non-motorized opportunities are available in the area. Recent planning efforts have used various other terms in an attempt to better describe the six ROS categories to the general public. Some examples of these terms include “front country”, “middle country”, and “back country”. However, these terms by themselves may not accurately describe exactly what types of uses are or are not allowed or other attributes of the area. The term “non-motorized” describes only that motorized uses are not allowed in the area. The term non-motorized could be used across a range of settings from wilderness to an urban park.

Comment: Transportation Section 3.2.18 on Page 3-66 outlines the transportation options offered under Alternative D. This alternative closes 4,400 acres to motorized use, sets a route density standard of 2 miles per square mile, and designates 428,000 acres as limited to designated routes for motorized vehicles. Is the route density standard an overall standard for the NCA or is it broken into different areas? Some areas in the NCA currently have more than 2 miles of road per square mile. We are concerned that this standard could be used to prevent motorized access. In general, the IDPR is supportive of eliminating duplicate routes or dead-end routes that don't lead to a recreation destination. (Ltr 4)

We are dismayed that the agency's preferred alternative lists a route density target of no

more than 2.0 miles per square mile when Alternative B, the access alternative lists a route density of no more than 1.7 miles per square mile. DRMP, pp. 3-65 - 3-66. We recommend BLM revise Alternative D to set a route density target of no more than 1 mile per square mile as the agency-preferred alternative, with lower route densities where appropriate for species of concern. (Ltr 9)

Response: Expressing route density objectives in number of miles of route per square mile left too much room for interpretation, since the figures were averaged across the entire NCA. We are currently working with our GIS specialists to define polygons that contain specific route density categories (i.e., low, medium, high) and then develop alternatives that show varying percentages of the NCA in each category. This percentage method will be incorporated into the final document.

Comment: Please seek input from EPA regarding soils within the project area – especially for reconfiguring of landscape soils, and sewer/toilet issues. There is a concern about groundwater contamination if sewage is not handled adequately. (Ltr 2)

Response: Installation of sewer systems and vault toilets will meet all Federal, State, and local health and safety standards and regulations.

Comment: We wonder if the Management Action concerning campfires may be too stringent considering the limited availability of developed camping facilities. We recommend you're considering seasonal restrictions that consider weather, ground moisture and location in regard to flammable vegetation. (Ltr 6, 16)

Response: Historically 2/3 of the fires within the NCA are human caused. The loss of vegetation has resulted in serious impacts to the raptor prey habitat and BLM efforts at restoration have, thus far, been minimally successful and costly. Considering the extensive resource damage and the limited demand for dispersed camping within the NCA, it does not seem too onerous of a restriction to close the area to fires outside of developed camping sites. This



management action is easier for people to understand and easier to enforce than an area or seasonal limitation or one based on moisture conditions.

Soils Management

Comment: Soil Condition and Trends (p. 2-40) The DRMP states that "in areas of the NCA where historic livestock grazing has degraded the watershed, an early- to mid-seral or disturbed vegetation condition now exists". However, we are unable to find any site-specific identification of any portion of any allotment which would permit substantive review and comment of this statement by the public. The DRMP lacks any specificity and any data to make such a broad conclusory statement. The DRMP makes generic statements regarding "mechanical disturbance" resulting in "compaction and structural breakdown", and purports (p. 2-41) that several studies consider heavy livestock trampling to be more harmful to the watershed than excessive grazing. Notwithstanding whether the two cited studies (both of which share the same author) constitutes "several", the DRMP again lacks any specificity so as to identify where (which pastures or areas of which allotments, if any) such generalization of potential impacts has been documented as being fact rather than a "potential". (Ltr 12)

Response: The RMP's landscape scale of analysis should not be confused with more site-specific or allotment-specific and detailed analysis used for S&Gs. The Affected Environment chapter is a generalized description of a given resource or land use, and is not meant to be allotment or pasture specific. The statements describing vegetative trend in the NCA are based on BLM studies, photo interpretation, fire history, and a number of other sources that verify that ecological conditions in the area have been degrading over time from vegetation communities that once supported shrubs with an understory of deep-rooted cool season bunchgrasses to communities that are now dominated by annual invasive grasses and short-rooted cool season bunchgrass with little or no shrub overstory. BLM recognizes that the level of grazing-related

impacts throughout the NCA, both positive and negative, vary by season and type of management.

Comment: The DRMP demonstrates an unsupported, unscientific, and unfounded bias regarding, "biological crust" at page 2-46, wherein the DRMP states, "Native communities are most susceptible to mechanical damage because their native biological soil crusts have not as yet been compromised." However, it is self-contradictory, because the passage follows a lengthy description of how the entire NCA has been severely disturbed by historic livestock grazing that forever altered the vegetative state and removed the desirable understory species, leaving only Sandberg bluegrass. The DRMP states that "Degraded areas would be restored to shrub/bunchgrass habitat with a forb component and biological soil crust to provide additional habitat for small mammals, invertebrates, lizards, snakes, and birds." However, we know of no evidence that "biological crust" is a necessary, nor even beneficial, habitat requirement for any animal species. The DRMP also lacks any specificity as to how or where "biological crusts" will be "restored". (Ltr 12,)

Response: A significant portion of the NCA has been impacted by historic livestock grazing, as well as wildfire, military training, and off-road vehicle activity. However, areas of native vegetation still exist and many of these have an intact or relatively intact biological crust component. The biological crust component is not usually referred to as a segment of the understory because it includes organisms such as lichens, fungi, and cyanobacteria that are technically not considered plants (vascular plants). A recent study (Serpe *et al.* 2005) revealed that a biological soil crust dominated by short mosses had a negative effect on seed water status and significantly reduced seed germination of cheatgrass. Many invertebrates, including insects and arthropods, are dependent upon soil crusts (lichens and bryophytes) for habitat (Serpe *et al.* 2005). Currently there is no well-established method for reestablishing soil crusts on a site. However, the RMP appropriately outlines a need to do



this restoration if and when suitable cost effective methods are developed. The priority identified in the DEIS for restoration focuses on the restoration of areas that at one time had a shrub component. Restoration would initially target areas with the greatest likelihood of successful restoration, primarily areas near existing shrub communities and areas that are being rehabilitated following wildfires. As technology advances and as opportunities arise, we will work toward the re-establishment of biological crusts as a part of our restoration.

Comment: Precipitation data needs to be updated to include the most recent years. Further, the precipitation data appears to hold no relevance unless compared "to" something else. Did the vegetative trend decline when the precipitation was below average? We know from the discussions regarding prairie falcons and golden eagles that the below-average precipitation years obviously had no impact on the "barometer" raptor species, so what is relevant about this statement? (Ltr 12)

Response: More recent data about precipitation trends for the NCA has been incorporated. Precipitation at the Bruneau weather station was 7.34", 5.67", and 10.21" in 2003, 2004, and 2005, respectively. Section 2.2.8 has been rewritten to include information relative to the affect of drought on raptors.

Comment: Soil Table 3.1 summarizes BLM's purported intention to "prevent the potential for future localized soil erosion process on all soils with a moderate to very high soil erosion potential", under all alternatives. It would appear that BLM intends to prohibit any and all activities that "might" have an impact on soil erosion, no matter how miniscule such impact may be. This is not rational, reasonable, nor realistic, and in fact conflicts with other management and objectives. (Ltr 12)

Response: We should have said "minimize potential soil erosion". This change has been incorporated in the Final RMP. The objective is specific to localized types of authorized activities on these soils, not natural processes. By "localized", the objective is referring to

site specific activities that can accelerate erosion and that can be mitigated by implementing Best Management Practices (BMPs) or by adding stipulations to permits, agreements, contracts, or other authorizations.

Special Designations

Comment: Table 3.1, page 3-60: Are there altitude restrictions/parameters that would be implemented for aircraft if a W&SR designation were made. Designation as W&SR could negatively impact MHAFB aircraft operations. (Ltr 2, Cmt 8, Federal Agency/Elected Official)

Response: Air space and altitude restrictions are imposed only by the Federal Aviation Administration (FAA), not the BLM. The outstandingly remarkable values identified for these sections of the Snake River are wildlife (raptors) and associated recreation (primarily raptor/bird viewing). If these river sections were designated by Congress as Wild and Scenic Rivers, the resulting management direction would be to protect the identified outstandingly remarkable values. Designation would only have negative impacts to MHAFB aircraft operations if the operations were shown to have negative impacts to the identified wildlife (raptors) or recreation (raptor/bird viewing) values.

Comment: BLM has severely restricted the public's ability to provide the agency with significant new information or to provide an alternative analysis. BLM readily admits that these four river segments are free-flowing and contain outstandingly remarkable values, BLM fails to explain how Alternative D will continue to protect these values, including protection from future dam construction, in light of the BLM's determination that these segments are not suitable for recommendation to Congress for WSR consideration. Instead of providing a detailed description of the management prescriptions BLM will use to protect the outstandingly remarkable values present on the 49 eligible miles of the Snake River within the planning area, the DRMP/EIS simply states, "The existing NCA legislation provides protection for the outstandingly remark-



able values associated with the Snake River Canyon" (pg. 3-58). BLM must provide specific and detailed descriptions of the management prescriptions it will use to protect outstandingly remarkable values and free flowing conditions of the Grand View, Indian Cove, Jackass Butte, and Swan Falls segments of the Snake River. (Ltr 9)

Response: For Wild and Scenic Rivers, the range of alternatives included one alternative where all eligible river segments were considered suitable for designation and one alternative where no river segments were considered suitable for designation. Alternative D determined that the four segments would not be recommended to congress for designation because the values that made them suitable are adequately protected under the proposed management identified in the RMP. The determination that each segment would qualify under the W&SR Act was based on a determination of eligibility and suitability at the recreational river level. This level of protection generally does not provide for any additional coverage over that provided by the NCA enabling legislation. The NCA legislation does not necessarily preclude future dam sites along the Snake River from being considered as a possible site for dam construction. However, based on discussions with Bureau of Reclamation and Idaho Power Company, we believe that possibility to be extremely remote. We believe that the VRM management class designations along with increased management emphasis for recreation will provide a similar level of protection to that provided by the NCA enabling legislation. Wild and Scenic River suitability determinations have been completed for the Snake River and will be included in the Final RMP/EIS.

Comment: I urge that this area be established as a wildlife fish plant habitat sanctuary preserve. To designate each of the following streams as a National Wild and Scenic River: Sand Creek, Rabbit Creek, Conden Creek, Squaw Creek, Canyon Creek, Rattle Snake Creek, Bennett Creek. (Ltr 5)

Response: Rabbit Creek and Conden Creek do not exist in the NCA. The other five creeks

do not meet the basic eligibility requirements for consideration as a Wild and Scenic River. As an NCA, the area is managed to protect the raptors and their habitat, which affords special protection over and above that provided on most public lands in the West.

Comment: Recreation Alternative C: The designations of Special Recreation Management Area (SRMA) for Snake River Canyon, Owyhee Front and Oregon Tail are in relative close proximity to PacifiCorp's line. The Wild and Scenic River (W&SR) designation could pose the same conflicts as the SRMA's making it impossible for PacifiCorp to renew our permit for the existing transmission line. (Ltr 8)

Response: SRMA and W&SR designations are proposed to protect special resource values or land uses, and would have no effect on prior existing rights, including your existing utility line. In making the determination that the designations are appropriate, consideration of existing facilities and uses are a part of the determination.

Comment: Enlarge the NCA to 726,813 acres, with a wilderness of 618,192 acres. (Ltr 5)

Response: We cannot respond specifically to your suggestion, since you did not identify which lands you want added to the NCA. The initial NCA boundary was based, in part, on the foraging area needed by raptors and we believe the boundary generally meets the intended purpose. The NCA-enabling legislation formally released the NCA from further consideration under the Wilderness Act. The boundary adjustment proposed in the preferred alternative would enlarge the NCA by about 10,000 acres.

Comment: The RMP fails to comply with FLPMA's requirement to "give priority to the designation and protection of areas of critical environmental concern (ACEC)" in order to ensure appropriate management of vulnerable resources such as slickspot peppergrass and the giant fairy shrimp. (Ltr 9, 16)

Response: ACECs are established to protect unique and sensitive resources from the effects of land use activities. BLM, however, will im-



pose no ACEC designation without understanding how and to what extent additional protection is needed to enhance the species or its habitat. Areas proposed for ACEC designation require an evaluation of both relevance and importance. While slickspot peppergrass may be both relevant and important, the protection provided by an ACEC designation within the NCA would be ineffective because: 1) the range of the species extends far outside of the NCA; 2) the species is currently managed under the 2003 CCA (Appendix 12) that contains specific conservation measures to protect the species; and 3) the NCA legislation already provides the protective segregative effect that would be provided through an ACEC withdrawal. The F&WS recently released slickspot peppergrass from further consideration as a listed species because in its view, "...current population trends do not appear to be significantly influenced by this habitat degradation." Slickspot peppergrass will continue to be protected through our imposition of CCA conservation measures on all applicable land use authorizations, as well as through our travel management planning process. Further, adaptive management protocols contained in the 2006 BLM/F&WS conservation agreement provide a mechanism for identifying those instances where additional management protections may need to be imposed.

We have incorporated a discussion of the giant fairy shrimp in Chapter 2 and management actions in Chapter 3. The giant fairy shrimp was recently identified as a new species. However, no data exists to suggest that the giant fairy shrimp or its habitat is threatened. Because we know virtually nothing about the species' range, its population biology, or its biological and ecological requirements, we are concerned that we could unknowingly harm the species in an attempt to protect it. For instance, we have been asked to fence out the two playas within which the giant fairy shrimp has been found. However, it is possible that tumbleweeds caught on the fence might pile up or otherwise accumulate in the playas, thus modifying existing ecological balances in a way that harms or jeopardizes the species. The

species has apparently tolerated historic and current land uses. However, we do not yet know whether current land uses are a benefit or detriment to the species, or whether there is any effect. Until we know more about the species' biological and ecological requirements, we cannot reasonably assess relevance, determine importance, or develop effective special management prescriptions, if indeed they are warranted. We fully expect that playas will be designated as off-limits to motorized vehicles through our travel management plan. The Final RMP includes the following management action in section 3.2.6.1: Giant fairy shrimp habitat would be managed with protection of the fairy shrimp as a priority. As more is learned about the fairy shrimp's biological and ecological requirements, BLM will incorporate appropriate protection measures.

Technical and Editorial Comments

Comment: Sec. 4.2.3 etc., page 4-12, etc.: "Assumptions" appear to be goals or objectives. Is this really adaptive management if the plan needs to make major assumptions to be valid? (Ltr 2)

Response: Assumptions listed for each resource or resource use are not goals or objectives, but rather provide "side boards" to proposed management actions, which help clarify the purpose, intent, and extent of the management action for analysis purposes.

Comment: Page 2-37. Please provide a reference for the statements "it is unlikely...that voles play a major role in short-eared owl densities away from agriculture or riparian areas. Density of vegetation is more likely the key to their nesting in upland areas." The 3-fold difference in Short-eared Owl density during the 1990s appeared to be related to vole abundance. (Ltr 10)

Response: The referenced statement was deleted.

Comment: The DRMP fails for the most part to reference the proposed and alternative actions to the maps and tables included within the document. It seems logical that if BLM can specify 10,000 acres to 130,000 acres



within a planning document, it has reasonable knowledge as to where it expects such acreage to occur, and it is incumbent upon BLM to report such knowledge in the DRMP document for public review and comment. The DRMP fails to do so. The DRMP fails to specify what "mosaics" of different seral states it anticipates as the DFC within the NCA, but instead is driven by a generic "restoration" goal. This lack of specificity of the DRMP renders it impossible for the public to provide adequate review and comment to the document. (Ltr 9, 12)

Response: The RMP is an umbrella planning document that sets the management direction for an area. The examples you cite provide direction to substantially increase restoration efforts within the NCA, which is appropriate for this level of planning. The exact location of proposed restoration projects will be determined on a site-by-site basis following RMP completion. The RMP states in Section 3.2.8 that restoration efforts would be prioritized using a variety of criteria, including soils, ecological types, and precipitation zones, as well as proximity to existing shrub communities, sensitive species habitat, raptor nesting sites, roads, and fences. At that time, the projects will be subject to public comment and site-specific analysis.

Comment: There are several areas of the DRMP that fall short of complying with the NCA enabling legislation and management goals directed by Congress, as well as with the BLM's obligations under FLPMA. Specifically, our concerns include the RMP's failure to commit to a sufficiently definitive approach to restoration. (Ltr 9)

Response: Specific restoration techniques were purposely not defined to ensure that the most current technology and available science was utilized in our restoration efforts. We have also provided for areas to be set aside for research purposes, specifically to encourage research that may help us improve our restoration efforts.

Comment: A review of page 4-14 reveals that the preparers of the document believe that any

and all livestock grazing creates negative impacts (e.g. "collapse of burrows"), notwithstanding the fact that ground squirrels plug their burrows themselves, and don't seem to have any difficulty digging their way out each spring), and that livestock grazing has absolutely no positive impact, under any circumstance (i.e. dormant season grazing, rotational grazing, etc). This section fails entire to recognize and report that livestock grazing at appropriate levels and time can reduce the likelihood of recurrent wildfires, which have more devastating impacts upon the forage and cover requirements of all wildlife species. By contrast, the section at page 4-16 attributes absolutely no adverse impacts, either short-term or long-term, to activities associated with "restoration activities". However, such restoration activities will almost certainly involve rangeland seeding, with rangeland drills and heavy equipment that are most certainly more likely to cause short-term "collapses of tunnels" and disturbance of surface soils. Likewise, the chemical treatment of areas to reduce cheatgrass and other species will in at least the short-term decimate the food base for countless Piute ground squirrels and other small mammals using the immediate area. In the case of Alternative D, this will likely entail 230,000 acres of habitat over 20 years (an average of 11,500 acres per year), with obvious short-term and possible long-term adverse impacts to the prey base populations. The DRMP also fails to specify and fully discuss the short-term and long-term impacts upon the raptors as a result of predictable, at least short-term, declines in prey base populations and their habitat as a result of "restoration" activities. (Ltr 12)

Response: The discussion in the "How Activities Affect..." sections has been expanded to include the statement "Restoration activities (including chemical treatment to reduce cheatgrass) that disturb soils and/or temporarily eliminate forage will cause at least short-term localized adverse impacts to raptor prey populations and potential short-term impacts to raptors that depend on them".



Comment: Fish and Wildlife Table 3.1 Management Actions: Since the work started on this RMP, the Bureau has acquired the property near Grandview temporarily known as the Bull Pasture. The acres of woodland to be planted should be increased from 100 to include the acres envisioned for this site. Also, there is an existing pond that will be renovated which should be reflected in this management action. (Ltr 6)

Response: The parcel you reference was acquired prior to the start of the RMP, and thus, is included in the 100 acres to be developed as woodland. The pond that exists on the parcel is part of the riparian area that is addressed as needing rehabilitation. The riparian rehabilitation will include sealing the bottom of the pond to enhance its water holding capability.

Comment: The DEIS claims on page 3-26 that "...where livestock grazing is permitted it would be managed through the S&G process." BLM is required to ensure that management plans and programs provide for the conservation of listed and sensitive species and their habitats. The development of S&Gs to ensure that this requirement is met should be completed at the RMP level as described in the manual. The FEIS should include this important step in the process. (Ltr 13)

Response: Allotment assessments and evaluations are not land use plan-level documents. Rather, they incorporate management direction from existing land use plans and relevant regulations and policies, and prescribe management that is meant to move affected grazing allotments toward their desired condition. In circumstances where listed or sensitive species are affected, adaptive management decisions would provide for livestock grazing management that ensures the continued conservation and protection of the species and its habitat.

Comment: The DRMP, on page 1-13, states that the plan will address the need for boundary changes to enhance the public's ability to use the NCA and BLM's ability to manage the area. We caution BLM in its approach to the proposed changes. Under the descriptions of

the alternatives C and D, the DRMP makes no mention of an effort to consult with landowners on this issue. The RMP in its current form does not analyze how changing the boundary to increase the size (Alternatives C and D) of the NCA will impact the value of the private land and the change of management of BLM lands from a multiple use to the purpose identified in the law that established the NCA. (Ltr 17)

Response: The NCA boundary adjustment proposal has been discussed with many groups and individuals throughout the planning process. In every instance, we received full support for the proposal once we explained the reasoning behind the proposal, and why we felt it would facilitate both BLM management and public use.

Section 4(h) of the NCA-enabling Act clearly states that "Nothing in this subchapter shall be construed as constituting a grant of authority to the Secretary [of Interior] to restrict recognized agricultural practices or other activities on private land adjacent to or within the conservation area boundary." Further, Section 6 (a)(3) states that "Nothing in this subchapter shall be construed as by itself altering the status of any lands that on August 4, 1993, were not managed by the Bureau of Land Management."

As such, there is no indication that Congress felt the NCA designation would adversely impact adjacent private land uses or their value.

Your recommendation to evaluate impacts on private lands from a change in management caused by a proposed NCA boundary adjustment is not possible, since comparable sales in the private sector would provide no information that would illuminate this effect, if it exists. If anything, having the NCA adjacent to private lands could potentially have a positive effect on their appraised value, since the landowner could count on the BLM lands being managed for a specific purpose over the long-term.



Comment: Why are all tables labeled Table 3.1? (Ltr 2)

Response: For simplicity (or so we thought), each separate resource or activity discussed in Chapter 3 has its own Table 3.1, which shows the objectives and management actions proposed for that specific resource or activity. For clarity, each Table is prefaced by the name of the resource or activity being discussed, such as Air Table 3.1, Cultural and Tribal Table 3.1, etc.

Comment: On Page 2-68 in Section 2.2.16, Recreation Sites, the DRMP states that the NCA only has two developed recreation sites (Cove and Dedication Point); however, the draft lists three sites (Cove, Dedication Point and Rabbit Creek). Celebration Park is also another developed recreation site within the NCA, but is managed by Canyon County Parks and Waterways. (Ltr 4)

Response: We have clarified in the Final RMP that three BLM-managed developed recreation sites exist on public lands in the NCA (Cove Recreation Site, Dedication Point, and Rabbit Creek Trailhead). Please note, however, that under Preferred Alternative, Rabbit Creek Trailhead would no longer be within the NCA.

Comment: Page 1-1. The text refers to the 1996 NCA Management Plan. The reference list shows the management plan as having been published in 1995. The copy we have in our office shows 1995 not 1996 as the publication date. (Ltr 10)

Response: Although the NCA Management Plan was published in December, 1995, it did not become final until the appeal period elapsed in February, 1996, after which the District Manager signed the ROD.

Transportation and Off-Road Vehicles

Comment: It is unclear whether Off-Highway Vehicle use to maintain power transmission and distribution lines is expressly authorized or otherwise officially approved. Right-of-way holders must be allowed access to inspect or repair their structures and facilities without vehicle access restrictions. These vehicles will

use existing roads and trails as much as feasible, but in some cases, the use of overland travel may be required. The definition of administrative tasks should be expanded to include power delivery operation and maintenance (O&M) activities and include emergency actions necessary to restore power. Authorization for travel access should be given within and outside of existing ROW on designated roads, trails or other routes as required. (Ltr 8)

Response: The RMP includes no provisions or proposals that would alter or reduce valid existing rights. Holders of authorized ROW are permitted access across public land to inspect, maintain, and repair their facilities according to the stipulations attached to their specific authorization(s). If no specific stipulations are attached, then the right-of-way holder is subject to applicable federal regulations. BLM could restrict right-of-way holders to specific access routes to protect sensitive resources, but would not preclude access altogether.

Comment: PacifiCorp generally supports most components of alternative D but has concerns that all transportation systems "would be located within the existing utility corridor" (pg 3-68 table 3.1). PacifiCorp would prefer to see the continued use of existing road network transportation language as described in alternative B. (Ltr 8)

Response: Proposals in the RMP are subject to valid existing rights. The alternative refers only to new utility transportation systems being located within the existing corridor. To be consistent with the WWEC Study, Alternative D has been amended to include an energy corridor south and west of the Snake River.

Comment: BLM should complete a comprehensive travel management plan or, at a minimum, commit to completing such a plan within one year. (Ltr 9)

Response: BLM is committed to begin the Travel Management Planning process following completion of the RMP.



Comment: The route evaluation criteria in the RMP should be strengthened to ensure that routes designated within the NCA are consistent with BLM's legal obligations and responsible management. The current arrangement of the eight criteria for route evaluation set out on pages 3-61 and 3-62 of the DRMP is skewed towards keeping roads open regardless of their impact on the ecosystem. The last criteria, "Is this consistent with the RMP and the intent of the NCA-enabling legislation", should be the primary criteria used for evaluating routes. We Recommend BLM use question number eight as a filter through which only those roads which are found to be consistent with the NCA enabling legislation can be further analyzed to be kept open in the TMP.

Response: We agree that question #8 on page 3-62 of the DRMP should be the primary consideration during the route designation process. We disagree, however, that the eight questions are skewed toward keeping roads open. Although the questions are not listed in priority order, we believe that answers to some of the questions are critical to determining whether designation of a particular route is consistent with the enabling legislation.

Comment: ARS Tree should eliminate yes/no questions, and remove the branches that imply an order of issues to be raised: By phrasing the data-gathering inquiries as yes or no answers and by placing them in the order shown, inquiries should be phrased to report all information on a route, including impacts. ARS Tree should incorporate information on potential cumulative impacts. In order to comply with NEPA, the ARS Tree must gather information regarding how-and to what degree-the designation of individual routes as either open or limited would cumulatively affect sensitive and non-sensitive resources. Laws require that motorized routes can only be located in a manner that minimizes impacts to soils, water, wildlife, and other recreational users. When presenting the information specify that any routes designated to be opened or to remain open are consistent with the laws, Executive Orders and regulations. ARS Tree should include description/evaluation of mitigation

measures. Further, monitoring is not an appropriate form of mitigation, because monitoring for expected damage does not actually reduce or alleviate any impacts. (Ltr 9)

Response: Many of these concerns are premature because the route designation process will not begin until the RMP has been finalized. BLM's intent in the RMP was to get public understanding and acceptance of the criteria (Transportation 3.2.18) that would later be used during the analysis and designation of specific routes. Reference to the ARS process has been deleted. BLM used the ARS software merely as a tool to sort and categorize data that will later be used to designate routes. BLM will determine the best method of analyzing data at the start of the route designation process. We will go forward with a route designation process as soon as possible following issuance of the NCA RMP ROD. While BLM will use the latest and most up-to-date information available, it is not reasonable to postpone decision making because of data gaps for which we are unaware. Rather, we will make decisions based on the best and most current information available, and then allow those decisions to be amended through adaptive management. Proposed mitigations will be developed during the route evaluation process.

Comment: BLM should follow the following eight travel planning principles and use an approach that ensures that only routes which comply with the NCA legislation and BLM's ORV regulations, and which truly serve a valid purpose for the public, remain open. Further, the involvement of ORV groups in the travel planning process should be limited in practice to obtain input from all users of the public lands and make informed, responsible designations of areas and routes suitable for ORV use. (1) Travel management is part of land use planning and should address both recreation and transportation needs from a landscape perspective; (2) Prior to conducting an inventory or designation of routes, BLM should assess the present resources, requirements for protection, and which uses for recreation and development are compatible with these resources, requirements and other users;



(3) BLM should use a legal definition of "road" when designating routes; (4) BLM's consideration of ORV use should take into account its potential damage to resources and other uses, including exclusion of other users; (5) Where BLM presents a baseline travel system, it must present route maps in a responsible manner that does not legitimize illegally-created routes; (6) BLM should include a detailed closure and restoration schedule in the plan; (7) BLM should include and implement a monitoring plan; (8) BLM should include and implement education and outreach in the plan. (Ltr 9)

Response: The eight principles outlined are good suggestions that will be incorporated as appropriate when BLM initiates travel management planning following the final RMP. We will not, however, limit the involvement of any interested individual or group in the travel management planning process.

Comment: BLM should use the information provided in "Habitat Fragmentation from Roads: Travel Planning Methods to Safeguard BLM Lands" (Appendix 1) or the criteria from the Dillon MT RMP to measure habitat fragmentation, then conduct a thorough fragmentation analysis and revise the route evaluation criteria that will be used when making road closure and/or other limitations on motorized use during implementation of the NCA RMP. (Ltr 9)

Response: Following the ROD, criteria will be refined during the route evaluation process. We encourage your involvement throughout this process.

Comment: In the Transportation Cumulative Impacts on Page 4-141, the DEIS states "Route designations in the Bruneau, Owyhee, and NCA could initiate or accelerate route designations on State and other land ownerships." This statement is inaccurate. Also on this page, the DEIS states "Overall the USFS and State Parks have begun to develop route designation processes, which could further limit opportunities in the region for cross country ORV use." The IDPR is not developing a route designation process, though we are

working cooperatively with federal and state agencies in their travel planning processes. (Ltr 4)

Response: The referenced comment was deleted.

Comment: The 4x4 community would ask to designate the canyon trail that leads north from the Simplot feedlot to the canyon rim for technical 4WD/Rockcrawling. We would suggest mitigation and management of this trail as follows: (1) Use of the trail would not be in the season of high fire impact; (2) Use of the trail would not be used during known raptor nesting periods; (3) Limitation of the number of vehicles that are on the trail during each visit; (4) Agree to limitation to season use and (5) The 4x4 community would provide trail maintenance as needed, under the guidance provided by the BLM. (Ltr 7)

Response: The referenced trail lies within an area that is proposed for OHV limited designation, in which vehicles would be limited to designated routes. As such, proposed use of the trail will be reviewed during the route designation process that follows the RMP. We encourage your involvement throughout that process.

Comment: Sec. 2.2.18, page 2-73: The reference to the "Air Force OHV Area" should be removed. The activity is not sanctioned by the Air Force or connected to the Air Force. Off-duty AF personnel may be using the area, but the area is heavily used by other non-AF OHV users. (Ltr 2)

Response: The narrative now references the area as being located along the Canyon Creek sand wash.

Comment: Several individuals and organizations have expressed an interest in maintaining the use of the Canyon Creek site for OHV activity. Current support of this management request by Elmore County and officials in nearby cities, gives the opportunity and possibility for a land swap that would exchange this land, value for value, with land that is a better candidate for conservation designation. We hope to secure the designation of this area as



an open motorized recreation area and implement management ideals that would satisfy most members of the public with an interest in this land. (Ltr 1, 7, 11, 14, 15)

Response: We have met on several occasions with individuals interested in keeping the area open for continued OHV use. Off road vehicle activity disturbs soil and displaces vegetation, both of which are detrimental to raptor populations and habitats which the NCA was established to protect. As such, these activities are incompatible with the purposes of the NCA, which is the reason the area has been designated as limited to designated routes and not open to cross country travel. However, we recognize that the activity has occurred in the Canyon Creek area for decades, and this area does not easily lend itself to restoration. Therefore, we will not limit use to designated routes for a period of one year after signing the ROD so that we can work with local government and/or user groups to establish a workable solution that will ensure impacts from the activities do not extend outside of the area. An acceptable management plan would require a local user group(s) or government entity to assume responsibility for management, maintenance and supervision of the area. Section 3.2.18 has been modified to include this information

Comment: On page 2-81, the DRMP states, "Socio-economic Tables 2.5 and 2.6 show that off-highway motorbikes and ATV registrations have had the largest increase compared to snowmobiles (22.7%)". The Idaho snowmobile registration increase has been driven by the non-resident registration requirement. Resident snowmobile registrations increased 10.1% between 1998 and 2002. Resident snowmobile registrations decreased 9.1% between 2001 and 2005. The 2004-2005 snow season was below average, which decreased registration sales. (Ltr 4)

Response: Tables 2.5 and 2.7 and the associated narrative have been modified to incorporate the latest available data. New data for Table 2.6 is not available.

Vegetation Management

Comment: Vegetation-Restoration bullet, page 4-5: Degradation and erosion are adverse effects that must be mitigated. There is thread through this section that seems to imply that natural processes acting on a [cultural] site that cause the loss of context and data are acceptable. (Ltr 2)

Response: Section 4.2.2 includes an assumption that cultural sites would continue to be impacted by natural weathering and erosion. We accept this reality even under the very best of conditions. However, the best of conditions is not the reality in the NCA. As such, to the extent possible, we will attempt to reduce weathering and erosion by improving the ecological conditions in the NCA. However, even in those situations where we have the greatest success, natural weathering and erosion will continue, over which we have no control.

Comment: Surface Disturbing Activities, pages 4-58, 4-59: Repeated localized impacts can limit the ability of desirable plants to re-establish and facilitate the establishment of undesirable plants, such as noxious or invasive species. (Ltr 2)

Response: Sentence was changed to read: "Repeated localized impacts can limit the ability of desirable plants to re-establish by reducing their numbers and reproductive capability, thereby facilitating the establishment of undesirable plants, such as noxious or invasive species."

Comment: Is green stripping not contemplated or will some of these new fire breaks actually be green strips? We believe that green stripping is as important for any fire protection plan where Cheat Grass is a major component of the landscape. (Ltr 6)

Response: The term "fire break" is a generic term that includes greenstripping. The actual fire break method to be used would be determined on a project-by-project basis. "Green-strip" was added to the glossary.

Comment: Winterfat doesn't show up as a particularly important shrub. The blocked up patches of this plant may be unique this far



north in Idaho. We suggest that this plant should be given higher status than just another shrub. The NCA may host the northernmost Winterfat monoculture patches in Idaho and it should receive extra attention as to how it is grazed and how it is protected from fire. We believe Winterfat should qualify as a SSP, or at least as a plant of significant concern. (Ltr 6)

Response: The patches of winterfat to which you refer are not monocultures, as many other plants species occur in these areas. Special status is generally inferred on those plant species that are rare, locally endemic, or significantly threatened in some way. Winterfat does not meet these criteria. However, it is an important component in the NCA and critical for the prey base as a food source. We consider winterfat as an important component of the shrub community that we are trying to protect.

Comment: The RMP alternatives provide no management solution to ensure the future of slickspot peppergrass. The slickspot peppergrass populations in the NCA are relevant and important. These nominations meet the relevance requirement as a significant wildlife resource because they involve the protection of habitat for a sensitive species and a natural process. This nomination meets the importance requirement for ACEC nominations because of the crucial role the slickspot peppergrass populations in the OTA and near Kuna have in ensuring the future survival of this species. In order to ensure that the best-known populations of this rare plant species are protected, the areas identified on the attached map should be protected from all grazing activity. The best and most effective means to accomplish this is to build an enclosure surrounding the areas.

BLM should impose the following management prescriptions to protect slickspot peppergrass populations from adverse impacts:

- Limit seeding use after fires: The study done by Meyers et al. identified that the use of *Kochia prostrata* and other non-native species, as well as the use of pre-

emergent herbicides were threats to slickspot peppergrass. Because re-seeding efforts outside of the ACEC nomination areas can affect slickspot peppergrass populations within the ACECs, the use of non-native species for re-seeding anywhere in the NCA should be prohibited. In addition, any herbicide or pesticide demonstrated as having or with the potential to demonstrate a negative effect on slickspot peppergrass should not be used within the ACECs.

While the agency preferred alternative addresses several of the documented threats to slickspot peppergrass, it fails to provide viable solutions to all of the threats. The DRMP does not define what "minimize impacts" means nor does the DRMP provide specific management prescriptions. Pursuant to BLM Manual section 6840, recreational OHV use should not and cannot supersede the need for protection of slickspot peppergrass. (Ltr 9, 13)

Response: BLM shares your concern for slickspot peppergrass, but an ACEC designation for slickspot peppergrass protection would be ineffective since the species' habitat range extends across an area much larger than the NCA. For the past few years, BLM has worked diligently with the F&WS to develop management strategies for all activities that pose a potential threat to the species. In 2003, BLM and several federal, state, and private entities entered into a Candidate Conservation Agreement, the purpose of which was to develop and impose conservation measures to protect and enhance slickspot peppergrass populations and habitats. In 2006, BLM entered into a Conservation Agreement with the F&WS, which included conservation measures that were refined to include the latest information known about the species. Some of the conservation measures address activities across the species' range, and are designed to reduce or eliminate impacts that could affect the species and its habitat. More specific conservation measures address activities within various slickspot peppergrass management areas, while others affect activities within specific priority element occurrences. Further, the



Conservation Agreement contains an adaptive management process that identifies triggers that would require new protective actions. Based in part on the above strategies, F&WS issued their January 8, 2007 decision to not list the species as threatened or endangered. Thus, BLM will not designate an ACEC for slickspot peppergrass, but will continue to manage the species under the requirements of the Conservation Agreement until new information warrants a change in management.

It should be noted that the 2006 Conservation Agreement disallows the seeding of forage kochia (*Kochia prostrata*) in occupied or potential slickspot peppergrass habitat. The RMP's restrictions of military and recreational off-road vehicle travel provide additional protection to the species and its habitat.

Comment: The DRMP fails to specify what "mosaics" of different seral states it anticipates as the DFC within the NCA, but instead is driven by a generic "restoration" goal. This lack of specificity of the DRMP renders it impossible for the public to provide adequate review and comment to the document. (Ltr 12)

Response: The exact location of proposed restoration projects will be determined on a site-by-site basis following RMP completion. As stated in the Upland Vegetation section (3.2.8), priorities for restoration are in part driven by opportunity (i.e. following wildfire), and part by probability of success (i.e. near existing shrub communities). At that time, proposed restoration projects will be subject to public comment and site-specific analysis. The DFCs were developed by the public during the scoping phase of planning. During scoping we agreed to incorporate the DFCs into the RMP exactly as they were written. As such, they reflect exactly what was developed by the public, and will not be modified.

Comment: The RMP should not only set out goals for restoration, but also specify how these goals will be accomplished, including a requirement that only native species will be used in restoration efforts. The RMP does not provide specific criteria, targets, or manage-

ment prescriptions outlining what species will be used for restoration, or how the BLM will ensure that restoration work is successful. The seeding of non-native invasive species, such as forage kochia, is one of the biggest threats to slickspot peppergrass. Since forage kochia is a known threat, it should not be used in any restoration efforts. It is important that surface disturbing activities including livestock trampling and recreational OHV use are not allowed until vegetation has reached a level that can withstand some level of disturbance; and then these activities must be actively managed to prevent damage to restored areas. In order to accomplish the restoration goals it is extremely important that only native species be used in all restoration efforts. The Final RMP should provide a list of native species that will be used in restoration efforts and all implementation plans must also use only seed mixtures containing these approved species. Also, the Final RMP needs to provide specific restoration efforts and methodologies BLM will use to ensure that restoration will be successful. BLM must also describe its plan to manage surface disturbing activities in restoration areas. (Ltr 9)

Response: The RMP is not the venue for making project-level decisions about individual species to be used in restoration projects. The NCA is in a precipitation zone that makes habitat restoration very difficult. As such, we will not prescribe methods of restoration in the RMP, since future research may identify improved methods for restoration. BLM will determine restoration success, on a project-by-project basis through site specific vegetation monitoring. In regard to the use of forage kochia, the 2006 Conservation Agreement specifies that forage kochia will not be used for habitat restoration or fuels management purposes in areas supporting slickspot peppergrass habitat. As the DRMP states, activities in areas affected by restoration and fuels management projects will be restricted for whatever period of time is needed for the projects to fully establish. Following project establishment, the authorized officer will determine which activities and what levels of those activities will be allowed in the affected area, to



ensure that the area continues to function in its new higher ecological condition. We do not believe that a mandate to use only native species for restoration efforts is reasonable or practical, given the level of ecological degradation across the NCA. Desirable non-native species exist that can enhance restoration success, while mimicking the habitat structure and function of native species. In addition, many desirable non-native species are more readily available, less expensive, hardier, more competitive, and more easily established than native species. No change required.

Comment: The DRMP characterizes native grasslands as those shrub-grasslands that have been disturbed by fire, and states that native grasslands are dominated by Sandberg bluegrass. However, this is not a correct description of the native grasslands of the Browns Gulch Allotment. Nearly the entire Browns Gulch Allotment has had the overstory shrubs removed by past wildfire. Some areas have been seeded to crested wheatgrass. In addition, unseeded areas of the allotment are dominated almost entirely by a mosaic of Needle-and-Thread and Indian Ricegrass, with very little acreage dominated by Sandberg bluegrass. This drastically departs from the conditions described in the DRMP Chapter 2. (Ltr 12)

Response: Although the referenced description for a native grassland (pg. 2-10) does not accurately describe each individual native grassland area on every allotment in the NCA, BLM contends that because of its frequency of occurrence, Sandberg bluegrass is the predominate native bunchgrass present on the public lands within the boundaries of the NCA. We have added the following statement to the referenced section in Chapter 2: “Some areas of more sandy soil may support significant stands of needle-and-thread and Indian ricegrass.”

Comment: 2.2.8 Upland Vegetation. The entire discussion of what was here before European settlement occurred is irrelevant. The DRMP lacks specificity as to the trampling and other impacts of herds of antelope, mule deer, elk, bison, or "Native American" horses

prior to the settlement of the area by Europeans. The DRMP is wrong in its reporting of existing vegetation types within the NCA. Nowhere does Vegetation Table 2.1 show any native perennial species (other than Sandberg bluegrass) to exist within the NCA. However, a substantial percentage of the Browns Gulch Allotment is dominated by Needle-and-thread and by Indian ricegrass. DRMP Vegetation Map 2 incorrectly depicts the extent of sagebrush cover within the Browns Gulch Allotment, which cover is considerably less than depicted on Vegetation Map 2. A comparison of Vegetation Map 2 to Vegetation Map 1 shows some areas that were dominated by big sagebrush in 1979 became dominated by winterfat in 2001. However, such transition is not possible due to the differences in ecological potential of the soils on which the two species are found. The DRMP is vague and non-specific at page 2-45 when it states that approximately "77% of the sagebrush communities have an understory that is dominated by Sandberg bluegrass and/or other native perennial bunchgrasses". Specifically, what other perennial bunchgrasses? The DRMP claims that the only species left is Sandberg bluegrass, and yet admits that other perennial native bunchgrasses dominate the understory. The DRMP must be revised to be more specific as to which perennial understory grasses dominate the various areas of the numerous grazing allotments within the NCA. BLM contends that BLM's reliance upon remote sensing to determine and report to the public the existing vegetation conditions within the NCA is erroneous and has fatally flawed the development of the DRMP, including the "Affected Environment", the range of "Alternatives", and the determination of "Environmental Consequences". BLM should, before publishing a revised DRMP, ground-truth its satellite imagery and conduct on-the-ground production and/or ecological condition sampling on the whole of the NCA so as to accurately portray existing vegetation conditions. BLM should then accurately report those findings as the "affected vegetation" in the revised DRMP, and revise the Purpose and Need, Affected Environment, Alternatives, and Envi-



ronmental Consequences sections of the DRMP. (Ltr 12)

Response: The DRMP neither states nor implies that BLM is “mandated to manage for conditions that existed prior to European settlement.” The restoration target for the NCA is to return to what existed in 1979. The reference was included as a brief illustration of the overall diversity of the complex ecological community that is commonly thought to have been present on most of the public land in the NCA prior to the initiation of European settlement. The NCA is to be managed to provide habitat for raptors, their prey, and other wildlife. This includes shrubs, forbs, and grasses to provide habitat for ground squirrels and black-tailed jackrabbits and other prey species.

Discussions about the use of fire by indigenous peoples have no relation to or bearing on the current state of land management or DFC.

Your comment relating to the data presented in Table 2.1 (pg. 2-41) is correct. The information presented in Table 2.1 does not accurately describe the composition of the vegetation on the public lands in the Browns Gulch Allotment. Nor does it accurately describe the specific vegetative composition of any other individual allotment within the NCA. However, BLM is confident that the data does provide an adequate planning-level landscape-scale description of vegetation communities across the NCA. Additionally, regarding your comment relative to the presence of winterfat (Vegetation Map 2) in habitat that was previously dominated by big sagebrush (Vegetation Map 1); you may be confusing areas represented as being predominately covered with salt desert shrubs on Vegetation Map 1. Additionally, some of the differences between the two maps are reflective of the methods by which they were created. The 1979 map was hand created from aerial photographs. The 2001 map was digitally created with 30-meter pixels from satellite imagery. You are basically correct in your statement regarding the “ecological potential of the soils on which the two species are found” (winterfat vs big sagebrush). However, given the diversity of soil

types across the lower Snake River Plain, suitable niche habitats are common throughout the area addressed by the DRMP.

Your comment regarding the “vague” description of the understory vegetation is noted. BLM has revised the text to include bottlebrush squirreltail and Thurber’s needlegrass, which are the only other native perennial grasses that are commonly found throughout the NCA.

Comment: The DRMP states that "Efforts would be made to restore native or naturalized vegetation in degraded habitats (i.e. exotic plant or seeded communities) in an effort to help create mosaics of native vegetation." However, the DRMP does not specify what BLM considers "naturalized vegetation".some professionals have suggested that cheatgrass, having been in the United States for more than 100 years, and having shown wide ecological amplitude and the ability to adapt to different climates within the country, should be considered as part of the natural landscape - hence, it is a "naturalized" species. (Ltr 12)

Response: The statement has been amended to read: “Efforts would be made to restore native or desirable non-native perennial vegetation...”

Comment: Ultimately, Alternatives C and D (and to a lesser extent A and B) are likely not economically or logistically feasible or attainable over the extent of the acreage targeted to be "restored". The DRMP admits at page 2-48 that "Few habitat restoration efforts have been attempted in the NCA. In addition, efforts to re-establish shrub cover have had limited success primarily because of drought conditions." If BLM has had limited success on shrub establishment and has no experience in even small scale "restoration" efforts, then upon what rational basis can the public expect the expenditures of tax monies to result in the stated objectives, goals, and DFCs espoused under the grandiose plans of Alternatives C and D (and to a lesser extent Alternatives A and B)? (Ltr 12)

Response: An RMP identifies management issues that need to be addressed over the life



of the plan (20+ years). The over-riding issue addressed in the RMP is the landscape-scale ecological change that has occurred in the NCA. BLM has considerable experience in restoration projects of all sizes, and as such, fully appreciates the magnitude of the proposals outlined in the RMP. We do not claim to be able to implement all the proposed restoration and fuels management projects with current funding or technology. However, we believe it is appropriate to identify the level of restoration and fuels projects that are needed to address the habitat degradation issue, and then use the RMP as the mechanism to obtain the required funding. The plan would also provide up to 5,000 acres for research targeted at improving our ability to restore arid sagebrush communities. Restoration and fuels projects are subject to the vagaries of weather, over which we have no control. However, a failure to address the ecological degradation in the NCA would be contrary to Congressional intent as prescribed in the NCA-enabling legislation.

Comment: On page 2-40, the DRMP states that native vegetation is being altered and replaced by less desirable species. This is a very broad claim and difficult to measure on a landscape level. Is this a general observation or are there studies in the NCA to substantiate this claim? ISDA suggests clarifying where this information comes from. (Ltr 17)

Response: We believe this statement is unarguable, given the NCA's landscape-scale change from native shrub/bunchgrass communities to shrub/annual grass communities and communities dominated by annual exotics without a shrub canopy. A citation has been inserted to show that this information came from the 1996 BLM/IDARNG Research Project Final Report entitled "Effects of military training and fire in the Snake River Birds of Prey National Conservation Area".

Comment: Alternative B on page 3-31 and Alternative D on page 3-32 state, "...however, Sandberg bluegrass dominated areas would receive additional management attention in order to reduce livestock impacts to Piute

ground squirrels." Though the environmental consequences to the additional Sandberg bluegrass management are described in section 4.2.8, impacts to livestock grazing in this section are not adequately addressed. Section 4.2.14 also does not address the impact to livestock grazing when additional management will be implemented to reduce impact to Piute ground squirrels. ISDA suggests that an impact statement be added in section 4.2.14 to address the impacts that are identified in alternatives B and D. (Ltr 17)

Response: Section 4.2.14. has been amended to reflect that grazing restrictions in Sandberg bluegrass areas would adversely affect livestock grazing.

Comment: Annual grasses-2nd bullet (4-58), Livestock Grazing (4-61, 4-62), pages 4-58, 4-61, and 4-62: In years with greater than average precipitation, timing of grazing for removal of annual grass biomass is key to reducing risk of fire. (Ltr 2)

Response: Narrative changed to reflect the benefit of fuels reduction.

Comment: The DEIS claims that the main management threat to sagebrush communities is typically heavy grazing. Since sagebrush communities on private lands have been converted to agricultural or other uses or are not being managed in a manner compatible with sagebrush dependent wildlife, the importance of the DFO maintaining the integrity of sagebrush habitats on BLM lands within the planning area to provide taller, denser stands for mule deer, pronghorn, and sage-grouse is extremely important. (Ltr 13)

Response: Mature big sagebrush, greasewood and four-wing saltbush stands are important pronghorn and mule deer habitat, which is one reason that rehabilitation of shrub stands is emphasized in the DRMP. The limiting factors for use of the NCA by big game, however, are lack of water and green forage in the summer. The lack of water is being addressed by the placement of water catchments in the area. The lack of green summer forage will be addressed by establishing perennial bunchgrasses that stay green longer than Sandberg's



bluegrass, but no bunchgrass or native forb will stay green throughout the summer.

Comment: The DEIS notes that habitat for black-tailed jackrabbits has been significantly reduced since 1980 because of burned sagebrush (DEIS 2-22), and that livestock grazing impacts to wildlife will be minimized by adhering to S&Gs, and vegetation treatments in upland habitats adjoining streams may divert livestock grazing pressure sufficiently to assist in meeting riparian improvement objectives. The DEIS does not include a discussion of the expected impacts to sagebrush communities or the species that rely on them from management activities such as livestock grazing and fuel reduction nor are we told on what scale they will occur. (Ltr 13)

Response: Restoration activities are intended to benefit and expand sagebrush communities and as such, we do not expect our activities to have an adverse affect on existing sagebrush.

Comment: Exactly how will sagebrush communities be manipulated? What are the expected impacts from treatment of these communities? These are serious questions that must be answered in the FEIS. (Ltr 13)

Response: Because of the importance of big sagebrush to many species of special concern, it is unlikely that sagebrush in the NCA will be manipulated to reduce its density. The BLM is much more interested in reestablishing robust sagebrush and other native shrub stands. Sagebrush communities will be treated with herbicides to control annual exotic species and to increase perennial bunchgrasses and forbs. Areas adjacent to and between remnant sagebrush stands will be restored so that they become habitat corridors to facilitate the movement of animals between sagebrush patches until the area between patches fills in with native shrubs.

Comment: Bald Eagle, page 4-27: A comparison of your stated outcomes for restoration of 20 miles of trees for bald eagles is the same as restoration of 1 mile. Both would have a moderate effect. 40 miles of tree restoration is considered to be highly beneficial. Shouldn't

the difference between 1 mile and 20 miles be "slightly" to "moderately" beneficial? (Ltr 2)

Response: Alternative A reflects moderate benefits at the LOCAL level, while Alternative B reflects the benefits at the LANDSCAPE level. No change needed.

Visual Resources Management

Comment: Visual Resources 3.1 Objectives: We believe that the Alternative D Objective should give the Snake River Canyon equal emphasis with historical areas. (Ltr 6)

Response: The canyon is a very significant visual resource and the area is protected in both alternatives. The wording has been changed to reflect that the Snake River Canyon is also protected as VRM Class II under Alternative D.

Comment: RMP fails to apply appropriate VRM classifications. (Ltr 9)

Response: The RMP designated VRM classifications. We do not know what you mean by "appropriate". The NCA was not established as an area with vast landscapes of high scenic quality. The principal purpose of the NCA is to conserve and protect raptor populations and habitats.

Comment: None of the slickspot management area is classified as VRM Class II. Since slickspot peppergrass is considered a type 1 species by the BLM and is to be managed as though it were an endangered species, classifying the slickspot peppergrass management areas as VRM class III and allowing the landscape to only be "partially retained," is inconsistent with not only the NCA legislation but also with BLM Manual 6840, which states that the BLM is required "to ensure that BLM actions will not reduce the likelihood of survival and recovery of any listed species or destroy or adversely modify their designated critical habitat." Manual 6840.06A2. (Ltr 9)

Consistent with the reasons for which the NCA was established and the guiding management principles, the majority of the NCA should be classified as VRM Class II, Specifically, areas of key raptor habitat, important



raptor prey species habitat, and slickspot peppergrass populations and habitat should be classified as VRM Class II. In addition, a DFC and Standard for visual resources should be set out, identifying conditions and standards to ensure that habitat areas are managed to be consistent with needs of raptors and prey species. (Ltr 9)

Response: The intent of the VRM program is to protect high quality visual resources. Areas along the Snake River qualify as high visual quality and have identified VRM classes to protect those values. The VRM program, however, is not the appropriate tool to protect special status plants and animals. Other tools and requirements exist for that purpose, such as the slickspot peppergrass conservation agreement. Much of the NCA does not have a high scenic quality and, therefore, protecting the scenic quality of the NCA was not an issue that led to the development of a DFC.

Additional Comments

Comment: On May 6, 2007, BLM met with the Idaho Congressional staff, IDARNG, and the Governor's Office staff, to discuss concerns over the proposed shooting restrictions. At that meeting the IDARNG and Governor's office expressed the concern that the expanded

shooting restriction would displace recreational shooters into an area of the OTA that receives more concentrated use as a result of restrictions imposed on off-road maneuver training in the Bravo area. In addition, the congressional delegation and the Governor's Office believed that insufficient site-specific information existed to support the expanded restriction.

Response: A review of available BLM and IDARNG data revealed that information on user conflicts in the OTA had not been collected in a format that provided quantifiable site-specific information. Additionally, BLM recognizes that the expanded shooting restriction could, and would likely, displace use into other areas, including the Bravo area. To address these concerns, the expansion of the shooting restriction was removed from the Proposed Alternative. To address the safety and user conflict issues, BLM and the IDARNG will incorporate into the Law Enforcement Standard Operating Procedures for the OTA safety protocols that are consistent with the objectives of the BLM/IDARNG MOU and section 4(d) of the NCA-enabling legislation.



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