UNITED STATES DEPARTMENT OF THE INTERIOR
Bruneau Field Office, Boise District
EA #ID120-2009-EA-3838

Applicant (if any): **Joseph Black & Sons (GRN 1100235)** **Sierra Del Rio (GRN 1100227)**	**Proposed Action:** **Reissue Term Livestock Grazing Permits for the Camas Creek Pocket Allotment (#0807) and Nahas FFR Allotment (#0892)**			EA No. **ID-120-2009-EA-3838**
State: **Idaho**	County: **Owyhee**	District: **Boise**	Field Office: **Bruneau**	Authority: **NEPA, FLPMA, & Taylor Grazing Act, 43 CFR 4100**
Prepared By: **See list of preparers in Section 4.0**	Title: **Camas Nahas Environmental Assessment**			Report Date: **June 10, 2011**

LANDS INVOLVED

Allotment	Meridian	Township	Range	Sections	Acres
Camas Creek Pocket	**Boise**	**9 S** **10S**	**1 W** **1 W**	**27-34** **3-6**	**3630**
Nahas FFR	**Boise**	**9 S** **10 S** **10 S**	**2 W** **2 W** **3 W**	**32,33** **4,5,6** **1,2,3**	**690**

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1.0 Chapter 1 – Purpose and Need

1.1 Background

Joseph Black and Sons and Sierra Del Rio have each submitted applications to graze livestock in the Camas Creek Pocket Allotment (#0807) and Nahas Fenced Federal Range (FFR) Allotment (#0892), respectively. An FFR is generally recognized as a grazing allotment comprised of lands owned by multiple entities, a minority of which is BLM-administered public land. This Environmental Assessment (EA) is necessary for the Bureau of Land Management (BLM) to fully process livestock grazing permits for these two allotments. This EA complies with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations.

The EA describes a proposed action and an alternative to the proposed action for each grazing allotment. It also describes the direct, indirect, and cumulative environmental effects of each alternative. Supporting documentation, including more detailed analyses of project area resources, is on file in the project planning record in the Bruneau Field Office, 3948 Development Avenue, Boise, Idaho. References to supporting documentation are cited as appropriate.

1.2 Purpose and Need for Action

The purpose of the action to authorize livestock grazing for the Camas Creek Pocket Allotment (Authorization # 1100235) and the Nahas FFR Allotment (Authorization # 1100227) consistent with BLM policy and in a manner that maintains or improves project area resource conditions and achieves objectives described in the Bruneau Management Framework Plan (MFP). The MFP identifies both the Camas Creek Pocket Allotment (#0807) and the Nahas FFR Allotment (#0892) as available for livestock grazing. Title 43 CFR § 4130.2(a) states, "Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans." This analysis and authorization are needed because:

- Applications for a grazing permit renewal have been submitted by qualified applicants to the BLM for consideration.
- There is a need to incorporate flexibility into the management of the allotments in order to allow the BLM and individual grazing permit holders to be able to adapt management to changing resource conditions, and to comply with BLM policy.

Pertinent multiple use objectives for the allotments include:

- Maintain or improve upland soils and vegetation conditions
- Maintain wetland resources in the Nahas FFR
- Maintain Columbia spotted frog habitat at Circle Pond
- Maintain or improve wildlife habitat
- Maintain or improve bitterbrush condition in Camas Creek Pocket Allotment
- Maintain or improve sensitive plant populations and habitat

The decision would determine the conditions and limitations necessary to issue two grazing permits compliant with BLM's statutory obligations as outlined in 43 CFR § 4130.2 (a), the multiple use mandate specified in the Federal Land Policy and Management Act of 1976

(FLPMA), and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (S&Gs [43 CFR § 4180.2(b)]). The decision area is the Camas Creek Pocket Allotment (#0807) and the Nahas FFR Allotment (#0892), presented in Appendix A.

1.3 Existing Conditions

The allotments are located in Owyhee County, Idaho, approximately 43 miles south of Murphy, and 75 miles south-southwest of Boise.

Initial allotment reviews and a series of rangeland health assessments for each allotment were completed in 2009, and summarized in the Evaluation Reports for Camas Creek Pocket and Nahas FFR, respectively. The reports found that both allotments meet all applicable Idaho Standards for Rangeland Health including:

- Standard 1 – Watersheds
- Standard 2 – Riparian Areas and Wetlands (applicable to Nahas FFR only)
- Standard 4 – Native Plant Communities
- Standard 8 – Threatened and Endangered Plants and Animals

Standards 3 (Stream Channel/Floodplain), 5 (Seedings), 6 (Exotic Plant Communities), and 7 (Water Quality) do not apply to either allotment. Upon review of the evaluation reports, the Bruneau Field Office Manager, on September 30, 2009, found that no rangeland health determinations were required. However, some bitterbrush stands in the Camas Creek Pocket Allotment were infested with tent caterpillars and bitterbrush decadence was fairly widespread in the affected areas.

1.3.1 Location and Setting of the Camas Creek Pocket Allotment

The Camas Creek Pocket Allotment (3,675 acres) is south of Mud Flat Road along the access road to Big Springs Ranch (Appendix A). The allotment is located on a plateau characterized by shallow swales alternating with rhyolite ridges and outcrops. The deeper soils in the swales support mountain big sagebrush/bunchgrass communities while the ridges are primarily low sagebrush/bunchgrass communities. Mountain mahogany and juniper groves often grow around rock outcrops. The swales lack stream channels or springs; thus the allotment does not support riparian plant communities. Mud Flat milkvetch, a BLM sensitive plant species, occurs within the allotment. Elevation ranges from 5,800 - 6,100 feet.

The BLM administers 3,630 acres (99 %) of the allotment. A few small corners of private land make up the remaining 45 acres. The southern portion of the allotment has one pasture subdivision, which allows some control of livestock access to irrigation ditch water. The allotment is grazed in rotation with several other primarily-private fields, under the Joseph Black & Sons Holistic Grazing Plan. Seasonal cattle grazing in the allotment occurs in late summer and fall as cattle leave the adjacent Big Springs Allotment.

There are 449 animal unit months (AUMs) permitted during July 1 through November 15 annually. The AUMs were increased in 1997 from 375 to 449. Actual use records from 1997 to 2009 indicate that licensed or actual use has ranged from 445 AUMs to 452 AUMs (Table 1).

Table 1. Camas Creek Pocket Actual Use Records, 1997 to 2009

Year	AUMs	On Date	Off Date
1997	451	7/9	7/18
1998	451	7/30	9/3
1999	451	7/21	9/1
2000	451	7/15	9/1
2001	449	7/1	11/15
2002	450	7/22	9/11
2003	446	7/22	9/21
2004	447	8/16	10/31
2005	445	8/14	10/16
2006	450	8/28	10/20
2007	451	8/4	10/20
2008	450	10/1	11/15
2009	452	9/28	11/15

1.3.2 Location and Setting of the Nahas FFR Allotment

The Nahas FFR Allotment (1,705 acres) is located at the northern end of Big Springs Allotment along Mud Flat Road, also known as the Owyhee Upland Backcountry Byway (Appendix A). Like Camas Creek Pocket, the deeper soils in swales support mountain big sagebrush/bunchgrass communities while ridges are primarily low sagebrush/bunchgrass communities, with areas of western juniper and mountain mahogany. Mud Flat milkvetch, a BLM sensitive plant species, occurs within the allotment. The allotment consists of a broad basin amid tablelands. Avery Table Spring and Bullhead Reservoir are the only riparian habitats of note. Elevation ranges from 5,200 feet to 5,700 feet.

The allotment includes 690 BLM acres, 232 State acres, and 783 acres of private land. Public lands in Nahas FFR are grazed as cattle are removed from the adjacent Big Springs Allotment (Table 2). Some cattle drift between the Bullhead Basin area of the Nahas FFR and the Avery Table area of the Big Springs Allotment due to gaps along the rimrock of Avery Table (Appendix A). At this time, the amount of cattle drift between the two allotments is manageable without construction of a barrier. The need for such barriers along the rimrock of Avery Table will be reevaluated in the upcoming Big Springs Grazing Permit Renewal EA.

The Nahas FFR Allotment is divided into three pastures, containing the bulk of public land, although some isolated corners are fenced with private land in other pastures, and may be grazed by cattle and horses in the spring and summer months. The FFR status was granted by a 1997 decision. A livestock shipping pen is located on private land. Approximately 163 acres of the Pole Creek Wilderness Area are within the Nahas FFR.

There are 80 AUMs permitted from April 1 to November 30 each year. Actual use records from 1997 to 2009 indicate that licensed or actual use has fluctuated from 80 AUMs to 82 AUMs (Table 2).

Table 2. Nahas FFR Allotment Actual Use Records, 1997 to 2009

Year	AUMS	On Date	Off Date
1997	80	4/1	11/30
1998	80	9/1	10/15
1999	80	9/1	10/15
2000	80	4/1	11/30
2001	80	4/1	11/30
2002	80	4/1	11/30
2003	80	4/1	11/30
2004	82	8/15	10/15
2005	81	8/1	10/14
2006	81	8/1	10/14
2007	80	8/1	10/15
2008	80	8/1	10/15
2009	80	4/1	11/30

1.4 Management Direction

The Bruneau MFP identifies the following goals for the range, wildlife, soil, water, and lands programs on the Camas Creek Pocket and Nahas FFR allotments:

- RM 1: Maintain the condition class of 283,849 acres currently in good and excellent condition.
- RM 3: Allocate livestock forage in each allotment in the Bruneau Planning Unit (BPU) so as to maintain and/or enhance the range and soil resources.
- RM 5: Provide for protection and conservation of rare and endangered plants within the planning unit.
- WL 2: Manage sensitive species habitats to maintain or increase existing or potential populations.
- WL 3: Manage 1,143,000 acres of big game habitat in the BPU . . . to obtain good ecological condition.
- WL 4: Manage upland game and waterfowl habitats in the BPU to increase populations of these highly desired species.
- WS 1: Maintain stability of 408,300 acres of moderate . . . erosion hazard classes by reducing or minimizing wind and water erosion.

1.5 Nahas FFR (Additional)

The following Bruneau MFP goals apply only to the Nahas FFR, due to the nature of the resources there:

- RM 1: Increase 343,522 acres currently in fair condition to good condition in 20 years. Following this 20 year period, the goal would be to improve all range to good condition.
- WL 6: Manage all meadows and riparian habitat in the BPU to obtain a maximum diversity of vegetative species in order to provide for a maximum diversity and optimum abundance of wildlife species.

1.6 Objectives

- The following objectives for the decision area are adapted from MFP guidance and site-specific knowledge of the allotments:
- Maintain or improve upland soils and vegetative conditions
- Maintain wetland resources on the Nahas FFR Allotment
- Maintain Columbia spotted frog habitat at Circle Pond
- Maintain or improve wildlife habitat
- Increase the percentage of live versus dead bitterbrush in the Camas Creek Pocket Allotment over the 10-year life of the permit
- Maintain or improve sensitive plant populations and habitat

1.7 Proposed Action

The Bruneau Field Office proposes to authorize continued grazing on the Camas Creek Pocket and Nahas FFR allotments. The proposed action would reissue two 10-year grazing permits with mandatory terms and conditions intended to maintain the S&Gs, and attain Bruneau MFP and allotment specific objectives. Adaptive management principles would be applied. Under this strategy, the duration and timing of grazing, as well as annual stocking rates, may be modified in response to changing resource conditions and achievement of management objectives. Other permit terms and conditions still necessary to address additional resources and land uses will continue in effect, and standard BLM terms and conditions would be added to both permits. The action proposed in both allotments is not the permittees' proposed grazing management. Both permittees propose no change to their respective grazing permits. The proposed action is described in more detail in Chapter 2.

1.7.1 Adaptive Management Design Criteria for Camas Creek Pocket

- The number of livestock in the Camas Creek Pocket Allotment may fluctuate to the extent that the grazing operation conforms to the terms and conditions of the permit.
- Camas Creek Pocket would continue to be managed within the Joseph Black & Sons Holistic Resource Management Plan to achieve management objectives for bitterbrush and understory species.
- The livestock use period would be shifted to early season use if monitoring shows that the objectives for bitterbrush are not being met and browse use levels are a factor.
- A proposed grazing system providing deferment may be implemented for an extended period to maintain understory species, or to reduce browsing of regenerating bitterbrush.

1.7.2 Design Criteria for Nahas FFR

- The number of livestock in the Nahas FFR Allotment may fluctuate to the extent that the livestock grazing operation conforms to the terms and conditions of the permit.
- The MFP allowable use level for riparian woody shrubs and upland vegetation is 50% of the current year's growth. Livestock should be removed from the use area, pasture or allotment when this utilization level has been reached.

1.7.3 Design Criteria Common to both Camas Creek Pocket and Nahas FFR

- The MFP allowable use level for upland vegetation is 50% of the current year's growth. Livestock should be removed from the use area, pasture or allotment when this utilization level has been reached.

1.8 Decision Framework

The Bruneau Field Manager is the authorized officer responsible for management of the Camas Creek Pocket and Nahas FFR allotments. Based on the results of this NEPA analysis, the Field Manager will issue a decision document or documents that include(s) a determination of the significance of the environmental effects and whether an environmental impact statement (EIS) will be prepared. If the Field Manager determines it is not necessary to prepare an EIS, the Manager will select an alternative from this EA.

1.9 Conformance with Land Use Plan

The Bruneau MFP (1983) guides public land management, including the grazing management program, in the Bruneau Field Office. The MFP identifies the Camas Creek Pocket Allotment as an "M" (Maintain) category allotment with active permitted use of 375 AUMs with a potential increase to 525 AUMs. Since the increase was based on a one-time survey, it has not been fully realized in the current grazing permit. The current permit is 449 AUMs.

The MFP also identifies Nahas FFR Allotment as a "C" (custodial or less intensive management emphasis) category allotment with active permitted use of 80 AUMs. Permitted grazing in these allotments conforms to MFP decisions. The following Bruneau MFP decisions apply to renewal of livestock grazing permits in these allotments:

1.9.1 Camas Creek Pocket and Nahas FFR

- RM 1.1 (2): Livestock rest or deferment systems would be established on critical sage grouse brood-rearing areas. If grazing systems do not improve habitat conditions, large meadow complexes may be fenced and excluded . . . or have special grazing management applied (e.g., use only after seed ripe).
- RM 1.5 Adjust livestock season of use and/or implement grazing systems on spring and summer ranges to meet minimum growth needs of preferred plant species.
- RM 3.1: Initial livestock use levels by allotment will be established at the five-year licensed active use levels from the years 1976-80 or by mutual agreement. Any subsequent increase or reduction in AUMs . . . will be based upon monitoring and other resource needs as identified in this MFP . . . Increase livestock use levels from 375 to 525 AUMs over a 5 year implementation period based upon monitoring. **Note:** In Camas Creek Pocket, this was partially implemented beginning in 1988, with a 74 AUM increase becoming permanent in 1997.
- WL 3.2: Manage 1,106,000 acres of mule deer spring, summer, and fall range in the BPU . . . so there is adequate food, cover, and water for 2,155 animals by 1990. Specifically: Implement livestock grazing systems and practices that recognize the physiological requirements of forbs and shrubs . . . Allow no more than 50% total utilization of the current annual production of key shrub species by all classes of animals combined.
- WL 3.3: Manage 1,079,000 acres in the BPU as pronghorn habitat . . . to provide sufficient forage, water, cover, and space for 1,175 animals by 1990. Specifically: Manage habitat for good ecological condition where feasible/economical.

- WL 4.3: Manage springs, seeps, and meadows and adjacent upland areas as key wildlife habitats for upland game. Specifically: Control livestock grazing on these habitats by the implementation of grazing systems, season of use and other management practices. If livestock overuse cannot be avoided, physically protect springheads and wet areas.
- WL 4.4: Manage 520,000 acres of sage grouse range in the BPU . . . to improve nesting, brood rearing and winter habitats. Specifically: Improve sage grouse nesting and brood rearing habitats to good ecological condition.
- WS 1.1: Minimize erosion by maintaining good perennial vegetation cover where it exists and where feasible/economical strive for establishing perennial vegetation cover to benefit all uses. If not feasible/economical to establish perennial vegetation, manage to achieve stable watershed conditions.
- WS 1.2: Minimize soil erosion of all surface disturbance activities through proper timing with regards to soil moisture content. All projects and/or authorized uses will consider soil erosion both on-site and off-site.

1.9.2 Nahas FFR

WL 6.1: To enhance wildlife diversity and abundance, riparian and meadow habitats will be managed to attain and/or maintain a good ecological condition class.
Specifically: Employ livestock management systems/practices/improvements including exclusion of grazing where necessary. Restore desiccated and former meadows where technically/economically feasible.

R 1, 1.1, 1.2: Designation of the Mud Flat Road as part of Owyhee Upland Backcountry Byway.

1.10 Relationship to Laws, Regulations, Policy, Other Plans

The proposed action is consistent with all applicable Federal laws and regulations, as well as other plans, programs, and policies of affiliated Tribes, other Federal agencies, and State and local governments to the extent practical within Federal law, regulation, and policy.

1.10.1 Cultural Resource Laws, Executive Orders, and Treaties

The BLM is required to consult with Native American tribes to "help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a proposed action, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration" (U.S. Department of the Interior, BLM Manual Handbook H-8120-1). Tribal coordination and consultation responsibilities are implemented under laws and executive orders specific to cultural resources, referred to as "cultural resource authorities," and under non-specific regulations, termed "general authorities." Cultural resource authorities include the National Historic Preservation Act of 1966, as amended (NHPA), Archaeological Resources Protection Act of 1979 (ARPA), and Native American Graves Protection and Repatriation Act of 1990, as amended (NAGPRA). General authorities include the American Indian Religious Freedom Act of 1979 (AIRFA), NEPA, FLPMA and Executive Order 13007-Indian Sacred Sites. The proposed action is in compliance with the aforementioned authorities.

Southwestern Idaho is the homeland of two culturally and linguistically related tribes: the Northern Shoshone and Northern Paiute. In the latter half of the 19th century, a reservation was

established at Duck Valley on the Nevada/Idaho border west of the Bruneau River. The Shoshone-Paiute Tribes residing on the Duck Valley Indian Reservation today actively practice their culture and retain aboriginal rights and/or interests in this area. The Shoshone-Paiute Tribes assert aboriginal rights to their traditional homelands as their treaties with the United States, Boise Valley Treaty of 1864 and Bruneau Valley Treaty of 1866, which would have extinguished aboriginal title to the lands now federally administered, were never ratified.

Southeastern Idaho is the homeland of the Northern Shoshone and Bannock Tribes. In 1867, a reservation was established at Fort Hall for them. The Fort Bridger Treaty of 1868 applies to BLM's relationship with the Shoshone-Bannock Tribes. The northern part of the BLM's Boise District was also inhabited by the Nez Perce Tribe. The Nez Perce signed treaties in 1855, 1863 and 1868.

The BLM considers off-reservation, treaty-reserved fishing, hunting, gathering, and similar rights of access and resource use on the public lands it administers for all tribes that may be affected by the proposed action.

1.10.2 Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management

In accordance with 43 CFR § 4180.2(b), the Idaho BLM developed Standards for Rangeland Health and Guidelines for Livestock Grazing Management (S&Gs) consistent with the fundamentals of rangeland health (43 CFR § 4180.1(a)). They were developed in consultation with BLM Idaho's Resource Advisory Councils (RACs) and are in conformance with the Bruneau MFP.

On August 12, 1997, the S&Gs were approved by the Secretary of the Interior. The Standards were developed with the specific intent of providing for multiple use and sustained productivity of the land. Rangelands that are meeting standards provide for proper nutrient and hydrologic cycling and energy flow. Guidelines direct the selection of livestock grazing management practices, and, where appropriate, of livestock management facilities to promote significant progress toward or the attainment and maintenance of the standards. Subsequently, livestock management practices on BLM lands in Idaho must be in conformance with these.

An interdisciplinary team of resource specialists visited the allotments in 2005 and 2009 to compare the current conditions to the land health standards. The land health assessments document current conditions. Land health assessments and Evaluation Reports for each allotment are retained in the Administrative Record of this EA. Both allotments meet the Idaho Standards for Rangeland Health.

1.10.3 The Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) considers all of Idaho to be within the potential range of Ute ladies' tresses (*Spiranthes diluvialis*), a federally threatened orchid species. This plant occurs in spring, seep and riparian habitats. Due to the difficulty in narrowly defining potential habitat for this species, USFWS has chosen to apply a loose definition and requires Section 7 consultation only in three counties of southeastern Idaho or in areas where the plant is

actually found (USFWS 2002). Surveys specifically for this plant are recommended, but not required, prior to authorizing Federal actions in southwestern Idaho.

The only wildlife species listed by the USFWS that occur, or potentially occur, in the Bruneau Field Office area are the Bruneau hot springsnail (endangered), bull trout (threatened), yellow-billed cuckoo (candidate), greater sage-grouse (candidate), and Columbia spotted frog (candidate). Only the Columbia spotted frog and greater sage-grouse occur, or have the potential to occur, within the project areas; the allotments are in compliance with ESA guidance.

1.10.4 The Clean Water Act

Section §313 of the Clean Water Act states that "each department, agency, or instrumentality of the Federal Government having jurisdiction over any property or facility, or engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions in a like manner as any non governmental entity". Therefore, BLM is required to comply with all Federal, State, interstate and local requirements, administrative authority, and process and sanctions in respect to the control and abatement of water pollution. Neither allotment has any listed stream segments on the included public land that would be affected by the proposed action.

1.10.5 The Omnibus Public Land Management Act of 2009

The Nahas FFR contains approximately 163 acres of the Pole Creek Wilderness Area, designated under the Omnibus Public Land Management Act (OPLMA) of 2009. The BLM must adhere to the language and requirements of the Act, which contains some wilderness rules and restrictions that differ from previous management. OPLMA specifically provides for the continuance of livestock grazing, subject to provisions deemed necessary by the Secretary of the Interior, and consistent with the Wilderness Act of 1964 and clarifying guidelines contained in Appendix A of House Report No. 101-405 (1990).

One of the more significant restrictions is the prohibition on motorized or mechanized equipment use. While existing uses, including livestock grazing, associated activities, and necessary facilities, may be permitted to continue within the Wilderness Area, routine use of motorized equipment to carry them out is prohibited. A plan for the occasional use of mechanized/motorized vehicles and equipment, that meets the requirements of the Wilderness Act and House Report, will be incorporated into the Wilderness Management Plan and set the parameters for mechanized and motorized use in relation to historic use, timing and frequency of use, and types of mechanized or motorized equipment to be authorized.

1.10.6 Conservation Plan for the Greater Sage-grouse in Idaho

The Idaho BLM manages greater sage-grouse in accordance with the Conservation Plan for the Greater Sage-grouse in Idaho (Idaho Sage-grouse Advisory Committee 2006). Therefore, appropriate conservation measures, as described in Chapter 4 of the Conservation Plan, or as described in completed local working group plans, are applied to actions authorized, funded or carried out on Idaho BLM land to the greatest extent possible. The primary goal of the Conservation Plan is to maintain, improve, and where possible, increase sage-grouse populations

and habitats in Idaho, while considering the predictability and long-term sustainability of a variety of other land uses.

The Conservation Plan includes the following objectives:

- Reduce, eliminate or mitigate the adverse impacts of human-related or unnatural disturbance to sage-grouse within or near breeding and winter habitat throughout Idaho.
- Maintain, enhance or restore sage-grouse habitat, and continuity of habitats, at multiple spatial scales.
- Manage Idaho's landscape to foster a dynamic sagebrush ecosystem that includes a diverse species composition of sagebrush, grasses, and forbs; and incorporates structural characteristics that promote rangeland health in general, and sage-grouse habitat requirements in particular.
- Manage sagebrush so that it is well distributed on the landscape, as ecological site conditions allow.
- Increase the proportion of key and stronghold habitat in Sage-grouse Planning Areas by:
    1. diversifying structural and species composition and re-establishing sagebrush within large perennial grass seedings,
    2. rehabilitating annual exotic grasslands,
    3. managing conifer encroachment to restore sage-grouse habitat,
    4. improving understory habitat quality in areas where sagebrush cover limits the herbaceous cover needs of sage-grouse, and
    5. improving understory quality where sagebrush cover is otherwise suitable.

1.10.7 Migratory Bird Treaty Act

The alternatives comply with the Migratory Bird Treaty Act and with the January 10, 2001 Executive Order 13186 -- Responsibilities of Federal Agencies to Protect Migratory Birds. Migratory bird species are analyzed and discussed in the Affected Environment and Environmental Impacts portion of this EA. If new requirements or direction result from subsequent instruction memorandums or interagency memorandums of understanding pursuant to Executive Order 13186, the grazing permits would be evaluated for subsequent consistency.

1.11 Public Involvement

The Bruneau Field Office met several times to identify issues, and develop and refine proposed management actions on the Camas Creek Pocket and Nahas FFR allotments. The project record and meeting notes reflect a series of internal and external scoping efforts.

On April 9, 2004, BLM sent a letter to all interested publics of record informing them of upcoming allotment assessment field work in the Camas Creek Pocket and Nahas FFR. Ms. Katie Fite, Biodiversity Director of the Western Watersheds Project expressed interest in the field work for Camas Creek Pocket.

The BLM sent another letter on February 23, 2005 requesting data, photos, and other information relevant to the rangeland health assessment for these and associated allotments. One permittee submitted photos and monitoring data. Another letter was sent by BLM on June 9, 2005 releasing the Draft Big Springs Assessment (of which Camas Creek Pocket Allotment was included) for review, requesting comments by July 5, 2005, and describing subsequent steps in

the permit renewal process for interested publics. Ms. Fite reiterated her interest in the Camas Creek Pocket Allotment in an email dated June 21, 2005, and stated that WWP may be interested in attending the follow-up monitoring, if schedules permit.

On July 26, 2007, BLM staff met with Mr. Craig Baker, Sierra Del Rio, to discuss his application for the upcoming permit renewal. On August 3, 2007, BLM staff met with Mr. Chris Black, Joseph Black & Sons, to discuss his application for the upcoming permit renewal. In both cases, the discussion focused on the permits for their respective Big Springs Allotment portions. No changes were proposed for the Nahas FFR or Camas Creek Pocket allotments.

The Bruneau Field Office met several times in 2005 and, again, in 2009 to identify issues, and develop and refine proposed management actions on the allotments. The BLM interdisciplinary team toured the allotments on July 9, 2009. In the following months, the team met to develop proposed actions and identify preliminary issues, concerns, and measures to carry forward into the analysis.

On August 10, 2009, Mr. Black indicated that he did not wish to consider any further increase in permitted use in Camas Creek Pocket Allotment, at that time, as a permit renewal alternative for the allotment as it currently was. He stated that, while he was confident that the additional capacity was there, he was willing to continue his operation under the existing permit.

Mr. and Mrs. Baker (Sierra Del Rio) met with BLM on August 12, 2009 to clarify the boundaries of the Nahas FFR Allotment. They indicated that BLM maps from the MFP inventory and the 1997 Final Decision creating that allotment were incorrect, and drew corrected boundaries on a map. However, they wished to renew the current permit, as it was, while considering the new boundaries, which included somewhat more Federal land. They submitted an application for the same mandatory Terms and Conditions.

The BLM prepared a public scoping package to inform interested and affected parties of the proposals, solicit comments, and identify issues. The BLM arranged delivery of the package materials to interested publics and stakeholders on April 2, 2010, and posted the information on the internet (Idaho BLM homepage) on the same date.

1.12 **Issues**

The Bruneau Field Office reviewed public scoping comments and examined the proposed action internally to identify any other potential issues. Comments not considered issues to analyze in this EA were identified as those that were either: 1) outside the scope of the proposed action; 2) already decided by law, regulation, MFP, or other higher level decision; 3) conjectural and not supported by scientific or factual evidence; or 4) not germane to the decision to be made.

The scoping package and public comments are included in the project record as the Camas Creek Pocket and Nahas FFR Permit Renewal Scoping Document and associated public comments. Issues identified internally by the Bruneau Interdisciplinary Team (ID Team) are documented by meeting notes in the project record. The following issues were identified during external public and internal ID Team scoping:

- Tent caterpillars in the Camas Creek Pocket Allotment have infested bitterbrush and there is concern that, if the outbreak continues, it could have a long-term, detrimental effect on the bitterbrush and associated wildlife habitat values. There is a need to develop an adaptive management approach to address concerns over the bitterbrush condition and related actions that may be needed to ensure that all Standards continue to be met.
- Some cattle drift between the Bullhead Basin area of the Nahas FFR and Avery Table area of the Big Springs Allotment, due to gaps along the rimrock of Avery Table (Appendix A). At this time, the amount of cattle drift between the two allotments is manageable without construction of a barrier. The need for barriers to livestock movement along the rimrock of Avery Table will be reevaluated in the upcoming Big Springs Grazing Permit Renewal EA.
- The Mud Flat Road is a Scenic Byway that traverses the Nahas FFR Allotment. Any projects should consider scenic values along the road.
- The proposed grazing management needs to include sufficient flexibility to adapt to changing resource conditions. Both permittees wish to continue the current permit terms and conditions.

2.0 Chapter 2 - Alternatives, Including the Proposed Action

This chapter describes and compares the alternatives considered for the management of the Camas Creek Pocket and Nahas FFR allotments, in order to define the differences between each alternative, and provide a clear basis for choice among the options by the decision maker and the public. Mitigation and monitoring measures incorporated into the alternatives are also described.

2.1 Alternatives Considered but Eliminated From Detailed Study

No Grazing Alternative
Remove livestock grazing from the Camas Creek Pocket and Nahas FFR allotments by issuing a permit with zero AUMs for a 10-year period.

Reduced Grazing Alternative
Reduce grazing by curtailing active preference through rest, extended rest or decreased stocking levels.

The no grazing and reduced grazing alternatives were eliminated from detailed because of each allotment's current resource conditions and relative lack of conflicts. Watershed conditions in both allotments provide for proper nutrient cycling, hydrologic cycling, and energy flow. Riparian area vegetation is in good condition (Appendix D, Photo 4). Upland vegetation is comprised of native plant communities in good condition, despite localized areas of insects (Appendix D, Photos 1-3). Both allotments function as plant and wildlife habitat for an array of species. Neither allotment supports habitat for Threatened or Endangered species. Livestock grazing has had minimal effects to sage-grouse habitat conditions in both allotments. Cultural and heritage resources are not being affected by livestock grazing. Both allotments provide recreational opportunities with low conflict. Allotment evaluation reports (2009) indicate that both allotments meet the Idaho land health standards (S&Gs). Eliminating or reducing livestock grazing is not necessary to continue meeting the S&Gs.

In the case of the Nahas FFR Allotment, supporting rationale for eliminating both the no grazing and reduced grazing alternatives from detailed study exists with livestock management practicality. The BLM-administered public lands in the Nahas FFR Allotment amount to 30 percent of the surface area; the remainder is either privately owned or managed by the Idaho Department of Lands. All ownerships are fenced and grazed together. The multiple ownerships and limited BLM land in the Nahas FFR Allotment presents a site-specific situation where eliminating or reducing grazing would require substantial fence construction projects. Current resource conditions do not justify the fence construction that would be necessary to eliminate or reduce grazing from BLM-administered public land in the Nahas FFR Allotment.

2.2 Alternatives Considered in Detail

Two alternatives provide a range of reasonable options that meet the purpose and need for action while addressing relevant issues. Both alternatives would result in issuance of separate grazing permits for the Camas Creek Pocket Allotment and Nahas FFR Allotment, but the terms and conditions for each permit would be different, depending on the alternative selected. Table 3 summarizes the mandatory terms and conditions that would apply in the allotments, under each

alternative, for ease of comparison. The livestock grazing permits would be issued for a term of ten years, regardless of alternative.

Table 3. Mandatory Terms and Conditions by Alternative

Allotment	Permit Information	Livestock		Grazing Period		% Public Land	Animal Unit Months[2]		
		Number[1]	Kind	Begin	End		Active	Suspended	Total
Alternative A									
Camas Creek Pocket #00807	Joseph Black & Sons #1100235	500	Cattle	7/1	11/15	100	449	0	449
Nahas FFR #00892	Sierra Del Rio #1100227	54	Cattle	4/1	11/30	100	80	0	80
Alternative B									
Camas Creek Pocket #00807	Joseph Black & Sons #1100235	500	Cattle	5/1[3]	11/15	100	449	0	449
Nahas FFR #00892	Sierra Del Rio #1100227	54	Cattle	7/1	11/30	100	80	0	80

[1] Numbers do not represent an increase in authorized use, but reflect livestock numbers reported on actual use forms. Permit flexibility allows variation in the number of livestock to the extent that the use is within the grazing period and total Animal Unit Months are not exceeded.

[2] Animal Unit Months (AUMs) relate to the number of livestock, the grazing period and the proportion of public land in an allotment. AUMs = (animal units) x (days) x (% public land) ÷ 30.416

[3] The amount of permitted AUMs would be the same as Alternative A but the season of use would be extended by up to 61 days to accommodate a seasonal grazing rotation should one become necessary.

2.2.1 Other Terms and Conditions Common to Both Alternatives and Allotments

- Range improvements must be maintained in accordance with applicable Cooperative Agreements and Range Improvement Permits.
- The permittee shall contact the BLM Authorized Officer at least two weeks prior to maintenance on existing reservoirs and spring developments, so that an archeologist can evaluate the area for site potential and possible adverse effects.
- Turnout is subject to Boise District range readiness criteria (Appendix B).
- Salt and/or supplements shall not be placed within one-quarter mile (0.25) of springs, streams, meadows, aspen stands, playas or water developments.
- A change to the scheduled use requires prior approval from the Authorized Officer.
- Livestock exclosures are closed to all domestic grazing use.
- All appropriate documentation regarding base property leases, lands offered for exchange-of-use, and livestock control agreements must be approved prior to turnout. Leases of land and/or livestock must be notarized prior to submission and be in compliance with Boise District policy.
- Pursuant to 43 CFR 10.4(b), the permittee must notify the BLM Field Manager by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in 43 CFR 10.2 on Federal lands. Pursuant to 43 CFR 10.4(c), the permittee must immediately stop any ongoing activities connected with such discovery and make a reasonable effort to protect the discovered remains or objects.

- Construction, reconstruction, maintenance or other ground disturbing activities (including range improvement project maintenance) that could affect previously undisturbed ground or involve heavy machinery require advance approval from the authorized officer.
- The Certified Actual Use Report is due within 15 days of completing the authorized annual grazing use.

2.2.2 Alternative A – Continuation of Current Management

Livestock grazing management on the Camas Creek Pocket Allotment and the Nahas FFR Allotment would continue under the same mandatory terms and conditions. Other permit terms and conditions would be updated to reflect current policies and management. No new rangeland management projects would be constructed. Existing projects would be maintained. Analysis of this alternative provides important baseline information because previous grazing decisions and existing grazing practices would continue. The proposed action would not be implemented.

2.2.2.1 Grazing Management on Camas Creek Pocket Allotment

Camas Creek Pocket Allotment would continue to be managed under the Joseph Black & Sons Holistic Resource Management Plan, as part of the E rotation, within existing and permitted flexibility. Maintenance of existing fences and water projects would continue.

The allotment would be grazed primarily in late summer and fall after the livestock are removed from Big Springs Allotment. The timing, intensity, and frequency of use would continue to be planned each year to reduce repetition of the same use period and to provide for rotation. The other pastures that would be utilized as part of the rotational grazing system include the Camas Creek Fields, Desert Field, and Dry Field. Use levels would be within those described in the Bruneau MFP.

Livestock number and periods of use within the allotment may vary annually as long as such use conforms to the terms and conditions of the permit. Recent actual use records indicate fluctuation in the number of livestock between years but 500 animal units is a reasonable high number for analysis purposes. The following language would be added as a term and condition to the livestock grazing permit for the Camas Creek Pocket Allotment:

- Livestock numbers may vary annually as long as the total AUMs used does not exceed permitted use and is within the period of use specified in the permit schedule. This flexibility will be authorized during the term of the permit, provided that the BLM is notified in advance during the annual grazing application process.

2.2.2.2 Grazing Management on Nahas FFR Allotment

The Nahas FFR Allotment would continue to be managed under FFR status. The number of livestock on BLM-administered public lands in the allotment could fluctuate because multiple ownerships in the pasture are not separated by fence. Recent actual use records indicate fluctuation in the number of livestock between years but 54 animal units is a reasonable high number for analysis purposes. The following terms and conditions would be added to update the livestock grazing permit for the Nahas FFR Allotment to reflect current management:

- Livestock numbers and season of use may fluctuate to the extent that the season of use is within the period of use specified in the permit schedule and that such use is in

conformance with applicable land use plan objectives and the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management.

- Motorized or mechanized vehicles and equipment are not permitted within the wilderness unless specific written permission is received by the Authorized Officer.

2.2.3 Alternative B – Proposed Action

This alternative incorporates an adaptive management approach to provide additional flexibility for changing circumstances. Adaptive management involves monitoring the results of management actions and implementing changes, if desired condition objectives are not being met. If monitoring indicates that rangeland health standards are not being maintained, management would be modified, in cooperation with the permittees.

Monitoring information (Table 5) would be gathered and evaluated annually for allotment objectives. Management adaptations may be implemented seasonally in response to changing conditions and needs. Monitoring information would help determine if or when adaptation occurs and would guide the selection of adaptive changes to be applied to ensure adequate success. Relevant new science and management techniques would be incorporated, as needed, or when they are developed. All adaptive actions would be within the scope of effects documented in this EA.

The desired condition objective originates from the objectives identified in the MFP and S&Gs (Section 1.6), but is focused here on bitterbrush condition and trend on the Camas Creek Pocket Allotment. The desired condition objective is to maintain the condition and productivity of the native plant community. The desired condition objective specific to bitterbrush in the Camas Creek Pocket Allotment is a minimum frequency of 10 percent—measured within the 50cm x 50cm frame—and a minimum bitterbrush density of 300 shrubs per acre at the key area (T09S, R01W, sec29) over the life of the permit. An additional landscape level objective is to maintain the vigor and productivity of bitterbrush stands throughout the allotment, relative to recent climatic events and natural disturbance, such as fire and insect outbreaks.

2.2.3.1 Grazing Management on Camas Creek Pocket Allotment

The amount of permitted AUMs would be the same as Alternative A, but the season of use would be extended by up to 61 days, to accommodate a seasonal grazing rotation, should one become necessary (Appendix C). A seasonal grazing rotation alternates timing, intensity, duration, and frequency to adhere to the desired condition. The season of use would be adjusted to May 1 through November 15. Livestock would be managed under the Joseph Black & Sons Holistic Grazing Plan. Livestock would continue to graze the area primarily during late summer and early fall. Livestock numbers and periods of use within the allotment may vary annually as long as such use conforms to the terms and conditions of the permit.

Annual Indicator Criteria

The annual indicator criteria (AIC) would indicate if and when adjustments to livestock grazing management are necessary. The flow chart in Appendix C shows how these would be incorporated into adaptive management. The following AIC would be monitored to reduce bitterbrush stress and determine whether bitterbrush in the Camas Creek Allotment should be supplemented via planting:

- Utilization of current year's growth of key upland browse species by all classes of animals combined (livestock and wildlife) would not exceed 50% at key areas. To determine utilization of bitterbrush by livestock and wildlife and assist its persistence, utilization of bitterbrush will be measured with the extensive browse technique to ensure that use does not exceed 50%. If use exceeds 50%, adjustments to grazing will be made that could include the seasonal rotation described in Table 4.
- The percentage of live versus dead bitterbrush would increase by 2014. During the summer of 2011, bitterbrush stands (live and dead) will be mapped within the allotment, and transects established at key areas to determine the percentage of live bitterbrush plants. This initial year of quantitative data collection will function as the baseline for the three subsequent years of data. By 2014, BLM would determine whether there has been an increase, decrease or no change in the percentage of live bitterbrush plants through recovery or recruitment. By conducting this assessment over three years, the response of bitterbrush will allow BLM to ascertain whether planting or grazing adjustments are needed to restore or maintain bitterbrush in the allotment.

If monitoring revealed that both AICs listed above are not being achieved, grazing management would be adjusted. Adjustments during the grazing year may include redistribution of livestock within a pasture, if not all areas exceed the annual indicator, or removal of livestock from a pasture. The AIC may be modified by the Field Manager based on the recommendations of the interdisciplinary team of resource specialists and consultation with the livestock grazing permittee. The intent of implementing a periodic seasonal rotation would be to alleviate late season grazing pressure on bitterbrush. The longer season of use under this alternative would accommodate such a shift should one become necessary. Table 4 illustrates an example of a grazing schedule adjustment, if monitoring showed such was necessary during the term of the permit.

Table 4. Grazing Schedule Example for Bitterbrush Adaptive Management in Camas Creek Pocket Allotment – Alternative B

Year 1	Year 2	Year 3	Year 4
May 1 – July 15	May 1 – July 15	July 1 - November 15	Monitor and repeat schedule, if needed

Monitoring of the AIC would continue following grazing management adjustments. Excessive browsing would trigger further adjustments grazing management. Bitterbrush plantings would occur if the percentage of live versus dead bitterbrush declines despite livestock grazing management changes. Plantings would be followed by livestock grazing management intended to protect seedlings and improving the native plant community overall.

Plantings would occur in areas of the Camas Creek Pocket Allotment where bitterbrush mortality is extensive; however, entire stands would not be replaced due to the high cost. Instead, smaller sized patches would be planted, and serve as recruitment areas for the larger stand. Planting sites would be on deep or productive soils, north or east facing aspects, and with low densities of competitive annual weeds. Young bitterbrush would be planted primarily under

dead ones, in order to take advantage of the shade and water/snow capture from the skeletons. Bitterbrush would be planted at a rate of approximately 300 plants per acre. Local plant materials would be used for the plantings, if available. Appendix C is a graphical depiction of the monitoring, AIC, and adaptive management aimed at achieving the objectives.

Recent actual use records indicate fluctuation in the number of livestock between years but 500 animal units is a reasonable high number for analysis purposes. The following language would be added as a term and condition to the livestock grazing permit for the Camas Creek Pocket Allotment:

- Livestock numbers may vary annually as long as the total AUMs used do not exceed the permitted use, are within the dates specified in the permit schedule, and are in compliance with the AIC, the LUP, and consistent with the Standards for Rangeland Health. This flexibility will be authorized during the term of the permit, provided that BLM is notified in advance during the annual grazing application process.

2.2.3.2 Grazing Management on Nahas FFR Allotment

The season of use would be shortened when compared to Alternative A. The allotment would have 80 AUMs of permitted use, which would be available between July 1 and November 30, and continue to be managed under FFR status. The turnout date would be changed to July 1 to more accurately reflect the actual use period on the allotment, while maintaining the flexibility typical of allotments with FFR status.

The number of livestock on BLM-administered public lands in the allotment could fluctuate because multiple ownerships in the pasture are not separated by fence. Recent actual use records indicate fluctuation in the number of livestock between years but 54 animal units is a reasonable high number for analysis purposes.

The following language would be added as terms and conditions to the livestock grazing permit for the Nahas FFR Allotment:

- Livestock numbers and season of use may fluctuate to the extent that the total AUMs used do not exceed the permitted use and the season of use is within the period of use specified in the permit schedule.
- The valve system at Avery Table Spring, which supplies water to a trough outside the Circle Pond Exclosure, would be a shut-off, and drained by the permittee when livestock are not present in the allotment, unless otherwise specified by the Authorized Officer.
- Motorized or mechanized vehicles and equipment are not permitted within the wilderness unless specific written permission is received by the Authorized Officer.

2.2.4 Management Activities Common to All Alternatives

2.2.4.1 Monitoring Plan

Long- and short-term monitoring would document changes in resource conditions over the life of the permit. Short-term monitoring would be repeated annually. Long-term monitoring would be repeated at five year intervals, beginning in 2013. The monitoring objectives are to determine whether management is being implemented as intended, and whether the actions are effective at achieving or moving toward desired conditions. Monitoring information would be evaluated

annually for the objectives identified in Section 1.6. Implementation and effectiveness monitoring locations and methods are summarized in Table 5.

Table 5. Implementation and Effectiveness Monitoring Plan – Camas Creek Pocket and Nahas FFR Allotments.

Pasture	**Short-Term Implementation Monitoring**
All	Type: upland utilization monitoring to ensure less than 50% utilization of key perennial grasses Method: height-weight method Location: representative vegetation communities
All	Type: actual/licensed use Method: bills and actual use reports
All	Type: range readiness inspection monitoring to ensure turnout criteria are met Method: observation/range readiness inspection form
All	Type: Mud Flat milkvetch population monitoring to ensure continuing compliance with salting restrictions Method: periodic observation Location: known populations
Camas Creek Pocket	Type: upland utilization monitoring and photo point monitoring to ensure less than 50% utilization of woody browse species Method: extensive browse method Location: representative shrub stands
Circle Pond Exclosure	Type: trough valve status Method: observation/range improvement inspection form Location: Avery Table Spring
Pasture	**Long-Term Effectiveness Monitoring**
Camas Creek Pocket Upland Vegetation	Type: trend measurements to measure species composition and ground cover Method: nested plot frequency, point intercept, and shrub density circle samples Location: Key area T09S, R01W, sec29

2.2.4.2 **Wildlife**

Although no fences are proposed under either alternative, existing fences could require maintenance or reconstruction during the permits'10-year terms. Fences that are reconstructed or maintained would adhere to specifications for standard livestock fences in deer, elk, and antelope habitat. New exterior allotment boundary fences located on public lands would consist of three barbed upper strands and a smooth bottom strand. New interior pasture fences located on public lands would consist of two barbed upper strands and a smooth bottom strand. Exclosure fences would consist of three upper barbed strands and one lower smooth strand. Existing fences would be marked or flagged, if sage-grouse collisions are documented, and could be flagged even without documented collisions where the field office wildlife biologist believes sage-grouse collision potential is high.

Existing fences will be marked with wildlife collision deterrents to minimize impacts by sage-grouse. Although empirical data is sparse relative to mortalities of sage-grouse and fence collisions, recent studies show that fences near sage-grouse leks that were marked with visual devices (vs. unmarked) exhibited 83% fewer collisions by sage-grouse in Idaho (Stevens et al. 2010) and a 70% reduction in Wyoming (Christiansen 2009). Furthermore, Idaho BLM IM 2009-006 ("Policy Statement on the Implementation of the Conservation Plan for the Greater Sage-grouse in Idaho") identifies fence collision risk as a consideration for managing lands in sage-grouse habitat and adhering to Conservation Measures 1 and 2 in Chapter 4 of the Idaho Plan. Boise District Instruction Memorandum Number ID-100-2011-001 describes the fence marking specifications that would be employed to minimize fence collisions by sage-grouse.

2.2.4.3 Visual Resources/Recreation/Soils

Motorized travel project maintenance would be limited to existing, authorized roads and trails. Any off-road or off-trail travel would require prior consultation and approval by the BLM Authorized Officer.

2.2.4.4 Cultural Resources

Any projects proposed in the future would undergo further NEPA analysis and Section 106 clearances.

2.2.4.5 Future Review of the Decision

An interdisciplinary review of this decision will occur after 10 years or sooner if conditions warrant. If that review indicates that management is meeting standards and achieving desired conditions, initial management activities would be allowed to continue under a renewed permit.

If monitoring demonstrates that objectives are not being met and management options beyond the scope of this analysis are warranted or if new information demonstrates significant effects not previously considered, a new proposed action would be developed and further NEPA analysis would occur.

2.2.5 Comparison of Alternatives

Table 6 summarizes and compares the effects of alternative implementation. Information in the table is focused on activities and effects where different levels or outputs can be distinguished quantitatively or qualitatively among the alternatives.

Table 6. Comparison of Alternatives

Attribute/Issue	Alternative A	Alternative B
Meets Purpose & Need	The alternative would meet the purpose and need for action. Soil and vegetation conditions would be maintained. Wetland and wildlife habitat would be maintained. Sensitive plant populations and habitat would be maintained.	The alternative would meet the purpose and need for action. Soils would be maintained and upland vegetation could improve over the life of the permit. Wetlands would be maintained or improved. Wildlife habitat would be maintained and could improve at rates dependent on bitterbrush response to adaptive management. Sensitive plant populations and habitat would be maintained.
Meets Standards & Guidelines	The Idaho Standards for Rangeland Health would continue to be met.	The Idaho Standards for Rangeland Health would continue to be met.
Effects on Wildlife and Plants	Less active bitterbrush management would maintain wildlife browse.	More active bitterbrush management would increase wildlife browse.
Effects on Upland Vegetation	Maintaining current season of use would continue to provide for plant communities at near reference condition in both allotments. Bitterbrush stands in the Camas Creek Pocket Allotment may not recover over the life of the permit.	Adaptive management in the Camas Creek Pocket Allotment would improve bitterbrush condition over the life of the permit. Postponing the season of use in the Nahas FFR would improve conditions over the life of the permit.
Effects on Soil and Watershed Condition	Soils would continue to provide for a proper hydrologic and nutrient cycles and energy flow.	Soils would continue to provide for a proper hydrologic and nutrient cycles and energy flow.
Effects on Riparian Condition	Wetland areas would improve or be maintained.	Wetland areas would improve or be maintained.
Effects on Recreation and Visual Resources	Landscape appearance and recreational opportunities would be maintained.	Opportunities for recreation and landscape appearance would be maintained. Potentially reduces the quality of opportunities to photograph nature and view wildlife in Camas Creek Pocket depending on adaptive management prescriptions.

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3.0 Chapter 3 - Affected Environment & Environmental Impacts

This section summarizes the physical, biological, social, and economic environments of the affected project area and potential changes to those from implementation of the alternatives. It also presents the scientific and analytical basis for comparison of alternatives presented in Table 6. Within each resource section, the affected environment is briefly described, followed by the environmental consequences as related to each alternative.

The environmental consequences section will provide the analysis of the direct, indirect, and cumulative effects of implementing each alternative. Direct effects are those caused by the action and occur at the same time and place. Indirect effects are caused by the action, but occur at a later time or distance from it. Cumulative effects describe incremental impacts of the alternatives when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes them.

3.1 Soil and Watershed Condition

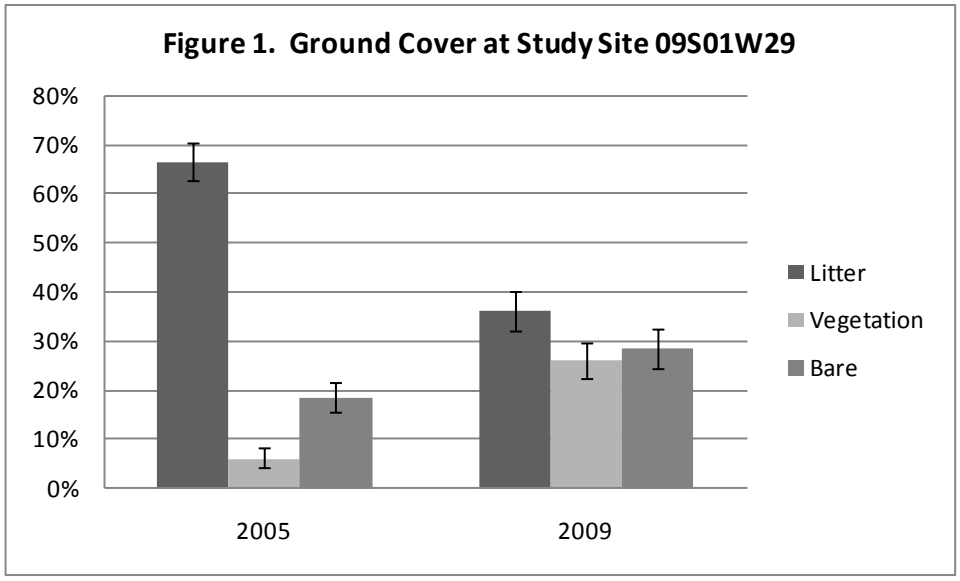
3.1.1 Affected Environment

The soils of both the Camas Creek Pocket and Nahas FFR allotments occur on undulating to steep slopes. Landforms include foothills and structural benches, with swales and rock outcrop features common. Soil depth can range from shallow to moderately deep, and are generally well drained. Soils in the region formed from welded rhyolitic tuff.

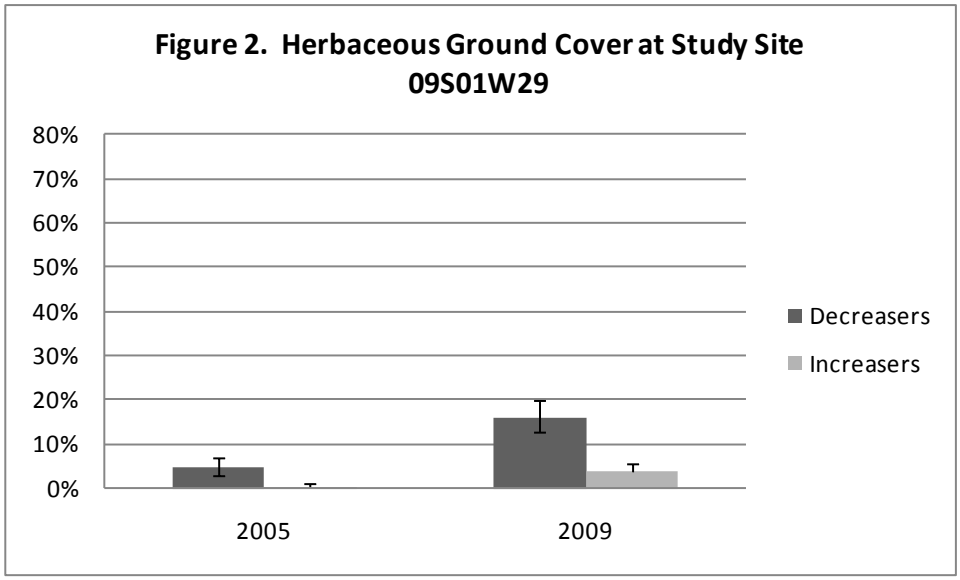
3.1.1.1 Camas Creek Pocket

The soils appear to be stable and capable of supporting proper watershed functions. This allotment is supporting proper nutrient and hydrologic cycling and energy flow within the greater watershed area. Soils displayed adequate resistance to erosion.

Ground cover sampling at key area T09S, R01W, sec29 indicates that while bare ground increased and litter decreased between 2005 and 2009, the overall amount of basal vegetation cover increased (Figure 1). Bare ground and litter can fluctuate from year to year due to the amount of production brought on by annual precipitation and utilization. The allotment displays a relatively high amount of cover provided by foliar and basal vegetation (Appendix D). Deep-rooted bunchgrasses in this allotment are slightly under-represented as a group, relative to reference conditions, but populations are stable and may actually be increasing. The live basal cover of herbaceous plants with root structures capable of cycling energy and nutrients into the soil profile (i.e., decreasers) increased between 2005 and 2009, suggesting improvement in watershed conditions (Figure 2). Biotic crust cover between 2005 and 2009 remained at less than 1 percent at the study site.



Bars represent the actual proportion of sample points in each study year (n=400). Error bars represent 90% confidence intervals around the proportions, using the method described in J.H. Zar, Biostatistical Analysis, 3rd edition, 1996, pp. 524-526. Gravel (9 percent) and microbiotic crust (1 percent) were also sampled during the study, but did not change between study years.



Bars represent the actual proportion of sample points in each study year (n=400). Error bars represent 90% confidence intervals around the proportions, using the method described in J.H. Zar, Biostatistical Analysis, 3rd edition, 1996, pp. 524-526. Decreasers include Idaho fescue, Thurber's needlegrass, western needlegrass, and bluebunch wheatgrass. Increasers denote Sandberg bluegrass.

The use pattern map, prepared in 2005, showed that only preferred big sagebrush communities within the service area of the Pole Creek water gap and Anthill troughs received moderate or greater use of understory grasses. Although utilization of Idaho fescue and bluebunch wheatgrass was heavy at the trend site transect (65%), little evidence of livestock use was noted during a July 2009 field visit. Current levels of livestock use appear to be compatible with

attainment of Standard 1. Fences allow the livestock operator to move livestock between sub-pastures of the allotment and control access to irrigation ditch water sources.

3.1.1.2 **Nahas FFR**

Private lands form the core areas grazed by cattle here. A rangeland health evaluation in the allotment's western portion documented slight departure from expected conditions related to Standard 1. Soils there are stabilized by gravel and vegetation cover. Water flow patterns were distinct in places near Mud Flat Road and diminished in other areas. Two rangeland health evaluations in the eastern portion reported similar watershed conditions with soils near reference condition and stable. Vegetation cover and structure are adequate to protect soil surfaces and facilitate proper nutrient and hydrologic cycling and energy flow. Standard 1 is being met in the Nahas FFR Allotment.

Trend data are not available for this allotment. Western juniper is encroaching on these sites, and bunchgrasses are slightly below potential in some areas but these plant community changes are not inhibiting watershed function.

3.1.2 Environmental Consequences - Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR allotments (Appendix A) because direct and indirect effects to soil and watershed conditions from the proposal would be limited to these areas. The cumulative effects analysis area extends beyond the allotment boundaries to include all associated 5th field watersheds (Appendix A).

3.1.2.1 **Direct and Indirect Effects – Camas Creek Pocket**

Direct effects to soils would include occasional imprints from livestock hoofs on the soil surface. Range readiness criteria (Appendix B) would limit the potential for hoof prints to destabilize soils because utilization would only occur when soils are dry. Grazing would remove biomass from the allotment each season, which represents an indirect, adverse effect to soils and watershed function because biomass helps stabilize the soil surface and helps prevent excessive erosion. Short-term implementation monitoring (Table 5) would ensure that utilization levels remain below 50 percent annual growth. This utilization level would leave amounts of biomass adequate for watershed protection. Direct and indirect effects of livestock grazing in the allotment would be adverse but minor. No change would occur in the amount of biomass or ground cover removed by livestock each year because the amount of permitted use and season of use would remain the same. Watershed conditions would remain satisfactory.

Utilization would continue to be distributed between sub-pastures. Sub-pastures within the allotment allow some control of grazing impacts, including access to irrigation ditch water sources. Existing water sources on public land would be maintained, and distribution patterns would be similar to those already observed. Juniper encroachment would continue, but does not result from livestock grazing permitted under this alternative, and is not addressed by management activities of this alternative.

Decadent bitterbrush stands could result in a slight reduction in the allotment's capacity to capture and retain snow. The overall effect on watershed function from decadent bitterbrush

would be minor. The allotment is used in conjunction with private and State lands and other permitted, public allotments which provide substantial flexibility so that options are available for varying the amount and timing of use if changing conditions require short-term adjustments.

3.1.2.2 **Direct and Indirect Effects – Nahas FFR**

Direct effects to soils would include occasional imprints from livestock hoofs on the soil surface. Range readiness criteria (Appendix B) would limit the potential for hoof prints to destabilize soils because utilization would only occur when soils are dry. Grazing would remove biomass from the allotment each season, which represents an indirect adverse effect to soils and watershed function because biomass helps stabilize the soil surface and helps prevent excessive erosion. Short-term implementation monitoring (Table 5) would ensure that utilization levels remain below 50 percent annual growth. This level of utilization would leave amounts of biomass in the allotment adequate for watershed protection. Direct and indirect effects of livestock grazing in the allotment would be adverse but minor. Soils would continue to be stabilized by a combination of live vegetation, litter, rock, and biological crust. The plant community structure in all public land pastures would continue providing adequate amounts of litter, soil stability, and watershed function over the life of the permit.

3.1.2.3 **Cumulative Effects**

Although the two allotments are not adjacent, both are within the cumulative effects study area (CESA) for soils, which is limited to the Upper Battle Creek, Pole Creek, and Hurry Back Creek 5th field watersheds—an area totaling approximately 253,000 acres (Appendix A). This area was selected because it contains the areas of direct and indirect effects to soils and watershed conditions for both the Camas Creek Pocket and Nahas FFR allotments. In addition, 5th field watersheds are a logical size for describing the cumulative effects that could reasonably arise from the proposed action.

Long-term livestock grazing practices in Camas Creek Pocket and Nahas FFR allotments are similar to those occurring on neighboring public land CESA. Maintenance would continue on existing fences and livestock water sources. In the analysis area, livestock use would continue in late summer or fall after seed ripening of upland perennial grasses, for the foreseeable future, and ecological condition would continue to be fair to good - as it has been since BLM conducted its first resource inventories in the 1950s. Boise District's ongoing weed control program would also continue on these and adjoining public lands. The cumulative effects of grazing in the CESA when added to the direct and indirect effects represents a relatively minor adverse effect to soil and watershed conditions because utilization generally occurs when soils are dry and use levels leave amounts of biomass adequate for watershed stability.

Juniper is invading habitats within the analysis area, and measures have been taken, and will continue in the foreseeable future, to control juniper density on many private and State lands and some public land through mechanical cutting and periodic burning. Understory species that maintain watershed function have consequently been maintained in these allotments as well as in interspersed private and State pastures. The cumulative effects to soils and watershed conditions from juniper control projects, when added to those described in the direct and indirect effects analysis, would be slightly beneficial over the long-term because juniper removal would promote herbaceous species abundance (Bates et al. 2000).

Road construction is unlikely in the foreseeable future because of the discontinuous ownership and access patterns, continuing focus on use of other ownerships for livestock grazing, and because public lands recently included in the Pole Creek Wilderness are closed to motorized use.

3.1.3 Environmental Consequences Alternative B

The analysis areas for direct, indirect, and cumulative effects are the same as those described under Alternative A.

3.1.3.1 Direct and Indirect Effects – Camas Creek Pocket

The effects of livestock grazing on soils and watershed conditions would be similar to those described for Alternative A. Periodically shifting the season of use from late to early season could indirectly benefit watershed conditions, if the condition of bitterbrush stands improve. Healthy bitterbrush stands would promote the plant community's capacity to capture and retain snow, relative to grasslands, because the shrubs act as barriers to drifting snow. If monitoring revealed that changes in the season of use did not improve stands, bitterbrush plantings would have the same effect over the long-term.

3.1.3.2 Direct and Indirect Effects – Nahas FFR

The effects of livestock grazing on soils and watershed conditions would be the same as those described for Alternative A. Shortening the season of use would not appreciably change soil and watershed conditions relative to Alternative A, since the proposed change reflects the permittee's actual use.

3.1.3.3 Cumulative Effects

The cumulative effects of other past, present, and reasonably foreseeable actions on soils and watershed conditions would be the same as those described for Alternative A.

3.2 Upland Vegetation

3.2.1 Affected Environment

3.2.1.1 Camas Creek Pocket

The Camas Creek Pocket Allotment is dominated by shallow claypan 12"-16" ecological sites, which support low sagebrush and Idaho fescue. The low-lying areas consist mostly of loamy 13"-16" sites dominated by mountain big sagebrush, with an understory of bluebunch wheatgrass and Idaho fescue. Sandberg bluegrass is common throughout both ecological site types. BLM lands in the allotment have approximately 2,394 acres of shallow claypan sites, and 1,236 acres of loamy sites. Juniper trees of various age classes are scattered throughout. The juniper is fairly dispersed and does not generally occur in dense stands. Shrubs and herbaceous plants are still the dominant vegetation that influences the ecological processes in most of the plant communities where juniper trees are present. Approximately 30 acres (<1 percent) of the allotment could actually be classified as juniper woodland. A general photograph of the upland vegetation is provided in Appendix D (Photo 1).

Rangeland Health: The attribute ratings for Standard 4 were none to slight departure from reference conditions for two of the three evaluation sites, and slight to moderate departure for the

third site. The slight to moderate departure rating was due to a shift in the functional/structural groups present at the site. This shift has resulted in an increase in structurally smaller, shallower rooted bunchgrasses, and a slight decline in deeper-rooted ones, such as Idaho fescue and bluebunch wheatgrass. Tent caterpillars were noted on numerous bitterbrush plants during site visits in July 2009. Bitterbrush decadence was substantial where infestations occurred. No tent caterpillars were noted during site visits in June 2005.

Trend: There is one long-term study site (T09S, R01W,sec 29) established in the Camas Creek Pocket Allotment. It is located in a loamy 13"-16" ecological site in the north end of the allotment. The site was established in 1987 and studied again in 2005 and 2009. The frequency of Sandberg bluegrass increased during the study, while bluebunch wheatgrass declined from 50% to 35% frequency (Figure 3). Although Idaho fescue and Thurber's needlegrass frequencies have fluctuated since the study began, the 2009 data indicates frequencies similar to those initially measured at the site (Figure 3). The presence of young juniper trees in some shrub communities, combined with a lack of any evidence of older individuals living or dead, implies juniper is encroaching into the sagebrush vegetation types. The expansion of western juniper throughout the Owyhee Uplands, and many other places throughout the Great Basin, is well documented (Miller et al. 2005).

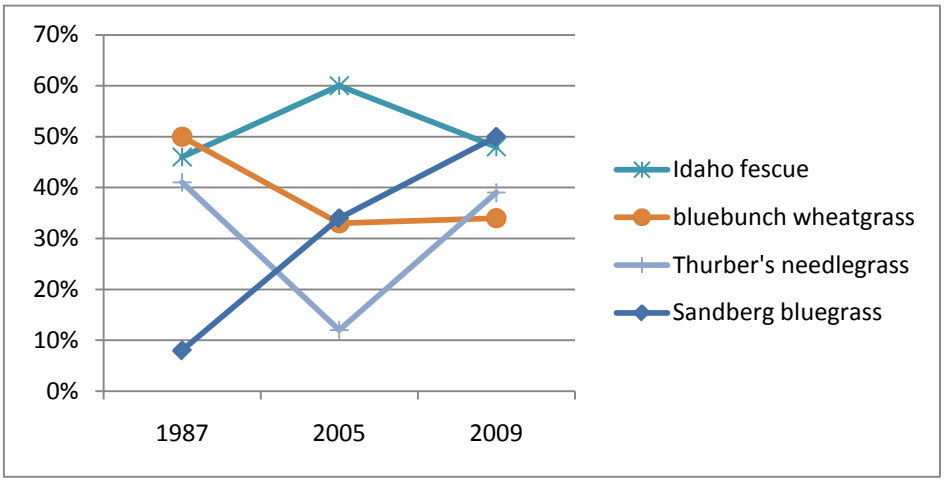


Figure 3: Frequency of Herbaceous Plant Species Measured at Key Area 09S01W29

Bitterbrush and rabbitbrush frequencies at the study site have been static since 1987. Bitterbrush frequency was 13% in 2009 (Figure 4). Sagebrush frequency has declined strongly since 1987. The decline in sagebrush frequency is curious since no fires have been documented at the site recently and qualitative photographic monitoring indicates sagebrush cover has remained relatively constant. The decline in sagebrush frequency may be attributable to maturation of the stand following an episode of recruitment. Episodic sagebrush recruitment occurs in favorable years following erratic pulses of soil moisture recharge (West et. al. 1979). Harper and White (1974) theorize that perennial plant populations develop a hierarchy of size with a few dominant age classes suppressing a larger class, where mortality is concentrated. This phenomenon could explain how the sagebrush community in Camas Creek Pocket could display relatively constant

cover despite a strong decline in frequency since 1987. Shrub density samples taken in 2009 indicate the average density of sagebrush at key area T09S, R01W, sec29 was 1,900 plants per acre, while bitterbrush density averaged 950 plants per acre. Shrub density was not measured in 2005.

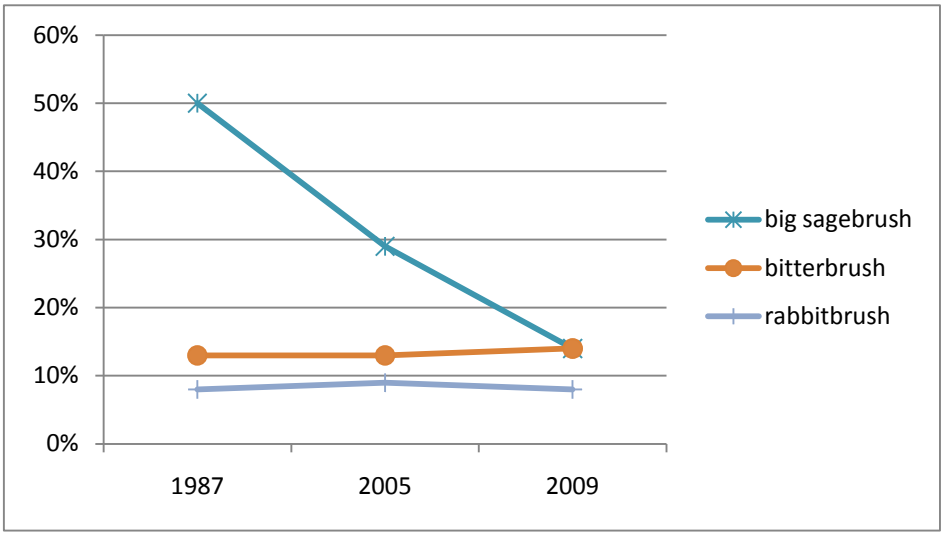


Figure 4: Frequency of Shrub Species Measured at Key Area 09S01W29

Livestock Grazing Management: Grazing in the Camas Creek Pocket occurs primarily in late summer and fall. Use has been deferred until after seed ripe each year, conforming to MFP Decision RM-1.5 (Adjust livestock season of use and/or implement grazing systems on spring and summer ranges to meet minimum growth needs of preferred plant species) and Guideline 4. Since 1993, they have been grazed in rotation with several other, primarily private, fields under the Joseph Black & Sons Holistic Grazing Plan. The timing, intensity, and frequency of use are planned each year to reduce repetition of the same impact in successive years.

3.2.1.2 Nahas FFR

The BLM lands within the Nahas FFR Allotment are dominated by loamy 13”-16” ecological sites (approximately 480 acres), with a smaller component of shallow claypan 12”-16” sites (191 acres), and small inclusions of clayey 12”-16”, dry meadow and riparian site types (less than 10 acres each). A general photograph of the upland vegetation in the area is provided in Appendix D (Photo 3). The shallow claypan sites support native plant communities of low sagebrush and Idaho fescue, while vegetation at the loamy sites is typically dominated by big sagebrush and Idaho fescue. The dry meadow sites are devoid of shrubs and support a mixture of facultative wetland and upland vegetation, including rushes, sedges, and sandberg bluegrass.

Rangeland Health: The allotment supports a native plant community that functions very near its potential. The vegetation is healthy, reasonably diverse, and capable of reproducing. Bulbous bluegrass is common in portions of the allotment’s eastern side and forb abundance was slightly lower than expected in some areas. Overall, the Nahas FFR is meeting Standard 4 because it

supports diverse, healthy native plant populations that provide for proper nutrient and hydrologic cycling and energy flow.

Trend: There are no trend sites established within the Nahas FFR Allotment.

Livestock Grazing Management: The Federal lands in Nahas FFR are grazed primarily in the fall. Livestock use in this pasture is currently limited, and also conforms to MFP Decision RM-1.5 and Guideline 4.

3.2.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR allotments (Appendix A) because direct and indirect effects to upland vegetation from the proposal would be limited to these areas. The cumulative effects analysis area extends beyond the allotment boundaries to include all associated 5th field watersheds (Appendix A).

3.2.2.1 Direct and Indirect Effects – Camas Creek Pocket

The uplands would continue to support native plant communities that function at or near their potential over the life of the permit. Livestock would not graze bunchgrasses during the spring active growth period, and species like bluebunch wheatgrass and Idaho fescue would flower and set seed without much grazing pressure. Most herbaceous vegetation would begin transferring food stores to below ground root systems as livestock grazing commences each season. Livestock grazing would have a negligible effect on the vigor and reproductive capability of bunchgrass species over a majority of the allotment. Minor fluctuations in the composition of herbaceous plant species would continue, in response to episodic disturbance events and seasonal precipitation. Sandberg bluegrass frequency would likely level off over the long-term.

Previous studies indicate that cattle increasingly utilize bitterbrush into the late summer and fall, as herbaceous vegetation goes dormant or becomes unavailable (Stuth and Winward 1977, Ganskopp et al. 1999, Ganskopp et al. 2004). The combined stress of late season grazing and insect infestations could reduce bitterbrush health, over the long-term, if tent caterpillar infestations continue. A complete loss of bitterbrush is not likely because insect outbreaks are often cyclical. Shrubs would begin to recover after the caterpillars die off. However, the potential for accelerated bitterbrush mortality exists as long as the caterpillar outbreak continues, and the loss of bitterbrush would reduce overall native plant community diversity because it represent a unique group of deciduous shrubs in the allotment.

The Camas Creek Pocket Allotment would continue to meet Standard 4 for native plant communities, over the short-term. A combination of stress factors (i.e., insect defoliation, drought, and livestock and wildlife utilization) could accelerate bitterbrush decadence, and the stand could deteriorate, over the long-term, if stress factors persist or worsen over the life of the permit. Long periods of bitterbrush mortality without recruitment would reduce overall species diversity in the native plant community.

3.2.2.2 **Direct and Indirect Effects – Nahas FFR**

The Nahas FFR would continue to support diverse and healthy native plant communities under the proposed grazing schedule. Both pastures would continue to exhibit an upland plant community dominated by deep–rooted, cool season bunchgrasses with a sub-dominant component of shrubs, forbs, and minor amounts of juniper. Bulbous bluegrass would continue to be common in the allotment's eastern portions and forb abundance there would fluctuate, depending on climatic conditions. Grazing after the seed ripe stage would promote continued vigor and reproductive capability of herbaceous species; juniper would continue to be a minor component of the plant community. Shrubs in the allotment would continue to be a mix of mountain sagebrush, low sagebrush, and bitterbrush, depending on the soil conditions.

The Nahas FFR would continue to meet the standard for native plant communities as a result of implementing the proposed livestock grazing permit. The anticipated effects on upland vegetation would also be consistent with the applicable MFP objectives (RM 1, RM 3) and decisions (RM 1.1 and RM 1.5).

3.2.2.3 **Cumulative Effects**

Although the two allotments are not adjacent, both are within the cumulative effects study area (CESA) for soils, which is limited to the Upper Battle Creek, Pole Creek, and Hurry Back Creek 5th field watersheds—an area totaling approximately 253,000 acres (Appendix A). This area was selected because it contains the areas of direct and indirect effects to soils and watershed conditions for both the Camas Creek Pocket and Nahas FFR allotments. In addition, 5th field watersheds are a logical size for describing the cumulative effects that could reasonably arise from the proposed action. The analysis of cumulative effects spans fifteen years, including the life of the proposed grazing permits plus the five additional years which would be necessary for direct and indirect effects to diminish.

The dominant upland vegetation types in the CESA are a mixture of low and big sagebrush shrub lands with herbaceous grasses and forbs beneath the shrub canopy. Juniper trees and mahogany savanna are common in patches throughout the shrub lands. Typical grasses include Idaho fescue, bluebunch wheatgrass, and Sandberg bluegrass. Meadows and cultivated fields are a small portion of the CESA. Native vegetation communities are largely intact.

Range improvement projects involving fence construction would result in localized areas of vegetation damage along narrow (+/- 200 foot) swaths, totaling approximately 6.5 miles of the CESA. Fence construction projects likely to occur here in the near future include the Hutch Spring Exclosure and projects approved in the summer use area of the East Castle Creek Allotment: Magpie Creek Headwaters Exclosure and Trough; Battle Creek Headwaters Exclosure; Buck Spring Exclosure; Rat Spring Exclosure; Juniper Station Pond; Gopher Spring Exclosure; Rock Spring Exclosure Expansion; Station Spring Exclosure Expansion; Pasture 29A Battle Creek Tributary Meadow Exclosure; Pasture 29A Pond at Bill De Alder Draw. The East Castle Creek Allotment project designs are described in more detail on pages 47 through 51 of Final EA #ID-120-2008-EA-45. Fence construction-related impacts to vegetation in the CESA could total approximately 158 acres. While construction-related effects to upland vegetation are often adverse, long-term effects are variable.

Longer term impacts to vegetation condition would occur inside the exclosures, along new fence margins, and at new water sources because range improvements alter livestock utilization patterns. The Hutch Springs Exclosure would relieve approximately 160 acres of sagebrush and mahogany savanna habitat of grazing pressure, resulting in long-term improvements to vegetation condition and vigor. Conversely, over-utilization of vegetation by livestock along the immediate area outside of the new exclosures is likely to degrade the condition and vigor of vegetation on approximately 158 acres (>1 percent) of the CESA over the long-term. An indirect increase in sage brush cover could occur, for example, where livestock favor palatable grasses and bitterbrush forage.

Reasonably foreseeable water developments at the Hutch Spring and Magpie Creek Headwaters Exclosure projects would result in the removal, trampling, breakage, and increased utilization of vegetation, and potential spread of invasive species to approximately on 251 acres (>1 percent) of the CESA. Utilization of native perennial vegetation can potentially reduce vigor and productivity of plants with a corresponding indirect increase in competition from invasive species, like cheatgrass. With approximately 200 feet of new water developments on or nearby, vegetation would likely be over-utilized and potentially removed as livestock loiter in the area, compact the soil, and plants no longer grow. Observations by the Bruneau Field Office staff indicate that, in most cases, increases in utilization would not be a factor at distances greater than ¼ mile from a water site.

The Battle Creek Fuel Treatment Project has affected species composition in the CESA by targeted juniper removal on approximately 28,000 acres. The Upper Castle Creek Fuel Treatment Project is ongoing and will eventually remove some juniper trees on an additional 13,000 acres of the CESA. The State of Idaho has implemented additional juniper cutting projects with similar objectives on areas administered by the Idaho Department of Lands. Selective juniper cuts have reduced tree cover and indirectly increased herbaceous understory plants. Herbaceous species diversity and richness have been known to increase following juniper removal on mountain big sagebrush/Thurber needlegrass plant associations (Bates et al. 2000).

Overall, the cumulative effects to upland vegetation from vegetation treatments, grazing, and rangeland improvement projects in the CESA would be minor. Native plant communities would persist with fluctuations in species composition, according to annual variations in precipitation amount and timing.

3.2.3 Environmental Consequences Alternative B – Proposed Action

The analysis areas for direct, indirect, and cumulative effects are the same as those described under Alternative A.

3.2.3.1 Direct and Indirect Effects – Camas Creek Pocket

The effects of issuing the livestock grazing permit on upland vegetation would be similar to those described for Alternative A, except that an adaptive management approach would provide the flexibility necessary to promote recovery of bitterbrush stands while maintaining other components of the plant community. Periodically shifting the season of use to avoid late summer and fall grazing could reduce some stress on bitterbrush stands (Stuth and Winward

1977, Ganskopp et al. 1999, Ganskopp et al. 2004). Lengthening the grazing season, without an increase in AUMs, allows a temporary shift to late spring or early summer use—a time when livestock are less likely to utilize bitterbrush. Livestock use on herbaceous components of the plant community would increase temporarily until the season is shifted back to the fall. Monitoring would indicate the need for a shift in the grazing season or a more active, bitterbrush recovery technique. Bitterbrush plantings would promote direct recovery if monitoring indicates that grazing season shifts were unsuccessful.

If adjustments in grazing season or utilization levels are unsuccessful at recovering bitterbrush, plantings would replenish stands by adding new shrub recruits to the plant community. The upland plant community would display a higher proportion of younger shrubs with less decadence and shorter stature than current stands, over the short-term. Successful bitterbrush plantings could prevent the potential loss of deciduous shrubs, a unique group of upland vegetation in the allotment that lends to its overall diversity. The benefits of healthy bitterbrush stands would persist over the long-term, if tent caterpillars do not parasitize planted shrubs. Natural bitterbrush recruitment could increase as plantings mature and become reproductive adults. The proposed action would not directly affect juniper within the allotment.

The Camas Creek Pocket Allotment would continue to meet the standard for native plant communities over the short-term, and would be more likely than Alternative A to retain a desirable bitterbrush stand, over the long-term, due to adaptive management measures that promote recruitment and recovery. The anticipated effects on upland vegetation would be consistent with the applicable MFP objective (RM 1).

3.2.3.2 **Direct and Indirect Effects – Nahas FFR**

The upland plant community would continue to resemble that described under Alternative A. Postponing the grazing season to July would improve slightly the condition of upland vegetation communities, over the long-term, because there would be less potential for grazing pressure on bunchgrass species during their reproductive stage. The Nahas FFR would continue to meet Standard 4 for native plant communities as a result of implementing the proposed livestock grazing permit. The anticipated effects on upland vegetation would also be consistent with the applicable MFP objectives (RM 1, RM 3) and decisions (RM 1.1 and RM 1.5).

3.2.3.3 **Cumulative Effects**

The analysis area and cumulative effects would be the same as those described under Alternative A.

3.3 Special Status Plants

3.3.1 Affected Environment

Currently, there are no known populations of Proposed, Threatened or Endangered plants (Type 1) in either of the grazing allotments. However, the USFWS considers the State of Idaho to be within the potential range of Ute ladies'-tresses (Spiranthes diluvialis), a federally threatened orchid species. This plant occurs in spring, seep, and riparian habitats. Due to the difficulty in narrowly defining this species potential habitat, USFWS has chosen to apply a loose definition, and requires Section 7 consultation only in three counties of southeastern Idaho or in areas where the plant is actually found (USFWS 2002). Surveys specifically for this plant are recommended prior to authorizing Federal actions in southwestern Idaho, but not required. This plant will not be discussed further.

Species discussed below are those listed on the 2010 BLM sensitive species list for the Bruneau Field Office. Only known populations of special status plants (SSP) occurring in the Camas Creek Pocket and Nahas FFR allotments are discussed below. All observations of population condition or impacts reported in this document are on file with BLM.

3.3.1.1 Camas Creek Pocket

Two populations of Mud Flat milkvetch (*Astragalus yoder-williamsii*) are known to occur in the Camas Creek Pocket Allotment. This milkvetch is a Type 3 species, which means it is globally rare with moderate endangerment factors. Mud Flat milkvetch is found bordering and within active and old roadways, occupying small openings in sagebrush steppe vegetation. This perennial species is typically found in mountain big sagebrush, low sagebrush communities, and, occasionally, on the edge of the juniper zone. The two populations were monitored in 1995, 2005, and 2009, and the overall habitat condition was rated good-to-excellent. A salt site, for livestock, is located near one population (within 0.24 miles), but does not appear to adversely impact the population. Some limited trailing and trampling through the populations was noted, although the plants were still vigorous.

3.3.1.2 Nahas FFR

There are no SSP known to occur on BLM-administered public land within the Nahas FFR. Mud Flat milkvetch (*Astragalus yoder-williamsii*) is known to occur on State and private land within the allotment, but suitable habitat does exist on BLM land.

3.3.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR allotments (Appendix A) because direct and indirect effects to special status plants from the proposal would be limited to these areas.

3.3.2.1 Direct and Indirect Effects – Camas Creek Pocket

No changes in the condition of special status plant populations would occur if current management continues. Populations of Mud Flat milkvetch would continue to thrive and their habitat would remain in suitable condition for long-term species viability.

3.3.2.2 **Direct and Indirect Effects – Nahas FFR**

No special status plants are known to occur on BLM-administered public land in this FFR. No changes are anticipated.

3.3.2.3 **Cumulative Impacts**

The full species range for Mud Flat milkvetch in Idaho, which is limited to the Owyhee Uplands, was considered when analyzing cumulative effects. The continuation of current management, when combined with the foreseeable and previous actions listed in this document, would not have a measurable cumulative impact on Mud Flat milkvetch. Two populations of this species have been extirpated in the West Castle Creek Allotment in recent years, but, overall, the populations in the Owyhee Uplands are in good condition and reproductively vigorous.

3.3.3 Environmental Consequences Alternative B

The analysis areas for direct and indirect effects are the same as those described under Alternative A.

3.3.3.1 **Direct and Indirect Effects – Camas Creek Pocket**

Adaptive management strategies that favor bitterbrush community health may also result in overall improvements to the health of Mud Flat milkvetch populations, since it prefers sagebrush habitat with grassy openings and shrub cover that is not dense. The populations occur in sagebrush dominated communities and would not be impacted by a rotational shift to earlier grazing or restoration of bitterbrush communities.

3.3.3.2 **Direct and Indirect Effects – Nahas FFR**

No special status plants are known to occur on the BLM-administered public lands in this FFR. No changes are anticipated.

3.3.3.3 **Cumulative Effects**

The full species range for Mud Flat milkvetch in Idaho, which is limited to the Owyhee Uplands, was considered when analyzing cumulative effects. The continuation of current management in Camas Creek Pocket, when combined with the foreseeable and previous actions listed in this document, would not have a measurable cumulative impact on Mud Flat milkvetch. Two populations of this species have been extirpated in the West Castle Creek Allotment in recent years, but, overall, the populations in the Owyhee Uplands are in good condition and reproductively vigorous.

3.4 Riparian Areas and Wetlands

3.4.1 Affected Environment

3.4.1.1 Camas Creek Pocket

There are no streams, riparian areas or wetlands located on BLM-administered public lands in the Camas Creek Pocket Allotment.

3.4.1.2 Nahas FFR

The two areas that support wetland vegetation on BLM-administered public land in the Nahas FFR are Circle Pond and Bullhead reservoirs. The reservoirs detain surface water for at least part of each year. Surface water is typically more persistent at Circle Pond than at Bullhead Reservoir because Circle Pond is spring fed, whereas Bullhead Reservoir is not, but captures snowmelt each season. Livestock are excluded from Circle Pond Reservoir and its associated spring complex by fencing. A head box at the Circle Pond spring complex collects surface water before it enters the reservoir below. A pipeline diverts water from the head box to a trough outside the exclosure where livestock access water. Circle Pond Reservoir and its associated spring complex are in proper functioning condition, with a healthy riparian plant community of sedges and willows. A general photograph of the Circle Pond exclosure area is provided in Appendix D (Photo 4).

Bullhead Reservoir is a developed basin that traps snowmelt under a rim. It is not protected from livestock grazing and utilization there is evident. Livestock trampling roughens the soil surface along the fringes of the reservoir, but, overall, the site is stable. Riparian vegetation at the reservoir is in good condition.

3.4.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR allotments (Appendix A) because direct and indirect effects to riparian areas and wetlands from the proposal would be limited to these areas.

3.4.2.1 Direct and Indirect Effects – Nahas FFR

Circle Pond and its associated springs would continue to be protected from livestock grazing and improve in condition. Bullhead Reservoir would continue to supply water to livestock and, as such, the impacts currently on the ground would continue, but they are slight and the riparian vegetation would remain in fair to good condition, depending on the amount of spring runoff.

3.4.2.2 Cumulative Effects

The cumulative effects analysis area is limited to the Owyhee Uplands. The continuation of current management in Nahas FFR, when combined with the foreseeable and previous actions listed in this document, would not have a measurable cumulative impact on streams, riparian areas, and wetlands.

3.4.3 Environmental Consequences Alternative B

The analysis areas for direct and indirect effects are the same as those described under Alternative A.

3.4.3.1 **Direct and Indirect Effects – Nahas FFR**

The effects to Circle Pond and its associated springs would be the same as those described under Alternative A. Riparian vegetation and wetland condition at Bullhead Reservoir would be similar to those described under Alternative A. Riparian vegetation and wetland condition would continue to meet the S&Gs.

3.4.3.2 **Cumulative Effects**

The cumulative effects analysis area is limited to the Owyhee Uplands. The cumulative effects would be the same as Alternative A.

3.5 **Wildlife Including Special Status Species and Migratory Birds**

3.5.1 Affected Environment

Although multiple BLM sensitive wildlife species have been observed in both allotments, and others have the potential to occur in one or both, only those that are likely to be affected by grazing activities will be analyzed in detail. Appendix E lists the ones observed in one or both allotments, as well as those that could potentially utilize the allotments during some portion of their life stage. Effects to elk, mule deer, and migratory birds will also be analyzed. Information pertaining to wildlife species includes data collected from visits to the project area, element occurrences in the Idaho Department of Fish and Game (IDFG) Animal Conservation Database, and IDFG telemetry data for greater sage-grouse (2002-2008).

Vegetation and elevation are similar between the two allotments with mountain big sagebrush/bunchgrass communities prevailing, except along ridges where low sagebrush/bunchgrass communities dominate. Patches of western juniper and mountain mahogany can also be seen scattered amongst the allotments. Neither allotment supports streams. The Circle Pond Spring and associated Avery Table Spring in the Nahas FFR are the only known springs on either allotment. Bullhead Basin Reservoir collects snowmelt from the surrounding uplands and contained less than 1 foot of water on July 29, 2009. Bullhead Basin does not support riparian vegetation below the reservoir.

Wildlife species that may be impacted from grazing activities in these two allotments, some of which function well as umbrella species (e.g. greater sage-grouse), include:

- Columbia Spotted Frog
- Pygmy Rabbit
- Greater Sage-grouse
  - Surrogate for loggerhead shrike, Brewer's sparrow, sage sparrow, and black-throated sparrow
- Elk and Mule Deer
- Migratory Birds

3.5.1.1 **Camas Creek Pocket**

Columbia Spotted Frog

There are no intermittent or perennial streams in the Camas Creek Pocket Allotment. Consequently, Columbia spotted frogs are not present in the project area and they would not be affected by grazing activities.

Pygmy Rabbit
Surveys for pygmy rabbits were conducted in the Camas Creek Pocket Allotment during 2005 and burrows exhibiting recent and current use were detected. Since pygmy rabbits consume sagebrush foliage during the winter and shift more to grasses and forbs during the summer (Green and Flinders 1980), maintaining all of these components are important for this species. Trend data depict varying trajectories of bunchgrasses and shrubs, but overall frequency of shrubs and bunchgrasses, when grouped, are similar between 1987 and 2009. In addition to the quantitative trend data, qualitative assessments were conducted in the area during 2009 field visits and vegetation conditions were considered vigorous.

Greater Sage-grouse
Although the Camas Creek Pocket Allotment does not contain late brood-rearing habitat (lacks persistent wetland areas), the allotment is adjacent to known lek areas and provides habitat for greater sage-grouse nesting. A breeding habitat assessment was conducted during 2009. This assessment resulted in an overall suitable rating characterized with a wide variety of forbs, but with sagebrush canopy cover slightly higher than optimum for this species. Known active leks were observed, during 2003, adjacent to this allotment (closest within 1/4-mile) but no recent surveys of these leks have occurred. The IDFG have recorded use by sage-grouse within the allotment using telemetry.

Rocky Mountain Elk and Mule Deer
Elk populations can be affected by human harvest (IDFG 2007a), while deer are more affected by predation and over-winter malnourishment (IDFG 2007b). Although this allotment does not coincide with winter range for elk, deer, or antelope, livestock grazing activities are most likely to minimally affect big game species by modifying the availability of browse in this allotment as they transition between fall and wintering areas. Field visits to the project area during 2009 revealed widespread mortality of bitterbrush from defoliation by tent caterpillars, so existing grazing impacts to bitterbrush could not be ascertained. This allotment is roughly 8 miles from bighorn sheep habitat, 6 miles from mule deer winter range, 12 miles from antelope winter range, and is within spring/summer/fall ranges for elk.

Migratory Birds
Some of the species that inhabit the Camas Creek Pocket Allotment are neotropical migrants. This means they are only present during the spring, summer, and fall. Neotropical migratory birds have become a concern in recent years because of declining populations. The January 10, 2001 Executive Order (13186) on the responsibilities of Federal agencies to protect migratory birds directs action agencies to "ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern". The Idaho Bird Conservation Plan (IDBCP) identified the highest priority habitats for priority bird species in need of conservation and supports the long-term sustainability goal of Executive Order 13186 as it takes a habitat-based approach to conserving bird populations (IDPIF 2000).

Most of the allotment is comprised of sagebrush habitat which is one of the priority habitats identified in the IDBCP (pp. 53-68). The Plan identifies the greater sage-grouse as an umbrella species to set the habitat objectives for sagebrush-obligate bird species. Although sage-grouse

are only short distance migrants, they will be used to describe effects to high priority, sagebrush-obligate, neotropical migrant birds (e.g. sage thrasher, Brewer's sparrow, sage sparrow; p. 16). This method could overlook habitat associations specific to some of the high priority bird species, but the sage-grouse analysis includes overstory, understory, and riparian conditions, so it will likely encompass many, if not all, of the components important to neotropical migrant bird species. See the greater sage-grouse sections in this document as a surrogate for descriptions of how this project will affect migratory birds in this allotment.

3.5.1.2 **Nahas FFR**

Columbia Spotted Frog

The Circle Pond spring complex and Bullhead Reservoir comprise water resources in the project area (Appendix A), with no intermittent or perennial streams in the Nahas FFR. Spotted frogs have been present in Circle Pond during previous years and one was observed during the July 2009 field visit. Circle Pond and the associated uphill spring complex are surrounded by an exclosure fence but the manmade pond has a breach, made by a burrowing mammal, in the downstream portion of the retention berm. The breach prevents water from accumulating in the pond, resulting in less desirable spotted frog habitat. The trough outside the exclosure was receiving water from the spring head box before livestock were grazing the area on July 1, 2009. The manmade reservoir at Bullhead Basin contained roughly 1 foot of water on July 29, 2009, and harbored many Pacific tree frogs, but no spotted frogs were observed. Given that there was no riparian vegetation below the reservoir, it likely does not contain water year-long or function as spotted frog habitat.

Pygmy Rabbit

One survey for pygmy rabbits was conducted in the Nahas FFR during 2005, and burrows exhibiting recent and current use were detected. No trend data exists for this FFR, but three rangeland health assessments resulted in a conclusion that the area contained healthy native plant populations. Qualitative assessments of the area during 2009 failed to detect deficits in vegetative conditions for pygmy rabbits.

Greater Sage-grouse

The Nahas FFR contains habitat that provides for late brood-rearing activities. The project area is roughly 1/2 mile from a lek last known to have had displaying birds in 2004. It was surveyed again during 2008, but no birds were observed. A breeding habitat assessment was conducted during 2009; it was deemed unsuitable for sage-grouse nesting. Even though all of the components of the assessment rated marginal or suitable, presence of abundant juniper and rim rock resulted in an overall unsuitable rating. The 2008 Idaho Greater Sage-grouse Habitat Planning Map identifies the majority of this FFR as habitat type R3, which correlates to juniper encroachment areas with high restoration potential (USDI BLM 2008). Two wetland areas were identified on BLM-administered public land within the FFR with late brood-rearing assessments scoring marginal (two) and suitable (one: Circle Pond). At least five (up to seven) greater sage-grouse were flushed from one of the marginal sites on July 1, 2009.

Rocky Mountain Elk and Mule Deer

As with the Camas Creek Allotment, the Nahas FFR does not coincide with winter range for elk, deer or antelope, so livestock grazing would minimally affect big game species by modifying the

availability of browse as they transition between fall and winter areas. No trend sites are located in the allotment, so a characterization of shrubs was not captured and the presence of tent caterpillars not identified during the 2009 field trips. This allotment is roughly 11 miles from bighorn sheep habitat, 10 miles from mule deer winter range, 14 miles from antelope winter range, and is within spring/summer/fall ranges for elk.

Migratory Birds
As with the Camas Creek Pocket Allotment, effects to greater sage-grouse will function as a surrogate for the analysis to migratory birds in the Nahas FFR.

3.5.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR allotments (Appendix A) because direct and indirect effects to wildlife from the proposal would be limited to these areas. Cumulative effect areas vary by species due to differing habitat requirements.

3.5.2.1 Direct, Indirect, and Cumulative Effects – Camas Creek Pocket

The primary effects to wildlife species from this permit renewal would result from the potential for modifications to vegetation and hydrological features in the allotments.

Columbia Spotted Frog
There would be no effects to spotted frogs because of the lack of existing habitat or the potential for it to develop (i.e. no intermittent or perennial streams in the allotment). Since this alternative would not have direct or indirect effects, there would be no cumulative effects to spotted frogs resulting from the continuation of current grazing.

Pygmy Rabbit
Maintaining current management would maintain a trend of satisfactory conditions. Individual shrubs and grasses would vary somewhat over time but overall cover of these groups would persist. Upland vegetation would likely remain in good condition given that the rangeland health assessments showed none to slight departure from reference conditions, and the only negative vegetation parameter was an increase of shallow-rooted bunchgrasses. Consequently, direct and indirect effects would comprise the continued existence of suitable habitat for pygmy rabbits.

The cumulative effects area for pygmy rabbits, relative to the Camas Creek Pocket Allotment, includes the entire allotment plus an area extending out four-tenths miles. This buffer distance includes potential home ranges of male pygmy rabbits that could go beyond the allotment itself. The average male home range is approximately 62 acres (Burak 2006). Since continuation of current management would not result in measurably negative effects, the combination of the effects from this project, when combined with any from the past, present, and potentially foreseeable future projects, would not cumulatively have a negative impact on pygmy rabbits that might use the project area.

Greater Sage-grouse

Current management in this allotment has resulted in suitable habitat for sage-grouse, and continuation would mean suitable habitat would likely persist. Shrub canopy cover may trend further away from optimum without any canopy cover-reducing disturbance (e.g. fire). Given the assumption that all sagebrush-obligate bird species respond similarly to upland vegetation, grazing activities are facilitating suitable conditions for sage-grouse and other sagebrush obligate birds. Therefore, direct and indirect effects of current management would result in the continuation of suitable habitat for sage-grouse.

The cumulative effects area for sage-grouse relative to the Camas Creek Pocket Allotment includes the entire allotment with an area extending out two miles. This buffer represents the distance from an active lek recommended for protection of breeding habitat for non-migratory populations of sage-grouse in uniform suitable habitat (Connelly et al. 2000). The combination of the effects from this project, when combined with any from the past, present, and potentially foreseeable future projects, in and within two miles of the allotment, would not cumulatively have a negative impact on sage-grouse.

Rocky Mountain Elk and Mule Deer

Elk, deer, and other herbivorous big game would not be affected by continuation of current livestock grazing because this allotment does not represent critical wintering habitat. Additionally, grazing is not currently affecting bitterbrush because widespread tent caterpillar defoliation means that any utilization of this resource late in the year (once grasses desiccate) would not occur. Therefore, the only coincident use of forage between cattle and big game would be during summer for grasses and, minimally, in the small stands of mahogany. Since livestock utilization is limited to no more than 50% of the current year's growth, grazing would not limit the amount of forage available to elk and deer, and there would be no direct or indirect effects. Furthermore, even if bitterbrush recovers in the allotment, the 50 percent livestock utilization limit would also prevent reductions in available browse species (i.e. bitterbrush and mountain mahogany). Since this alternative would not have direct or indirect effects to elk or deer, there would be no cumulative effects to these species resulting from the continuation of current grazing.

Migratory Birds

See the Greater sage-grouse section for a surrogate analysis for migratory birds (reference the rationale in the Affected Environment).

3.5.2.2 **Direct, Indirect, and Cumulative Effects – Nahas FFR**

Columbia Spotted Frog

Spotted frogs are being negatively impacted at Circle Pond within the Nahas FFR due to the lack of standing water over winter. A breached pond retention berm prevents water accumulation over winter. As a result, Circle Pond does not function as overwintering habitat for spotted frogs. The spring complex and associated pond are protected from livestock disturbance by an exclosure, so the only known spotted frog habitat area would not be directly or indirectly affected by continued grazing management. Consequently, there would be no cumulative effects resulting from the continuation of current grazing practices.

Pygmy Rabbit

Rangeland health assessments noted a slight departure and a slight to moderate departure from reference conditions with respect to the vegetation community. Considering that these assessments meant that the FFR is maintaining plant communities that meet Standard 4 (i.e., healthy native animal habitats and plant populations), maintaining the current management in this allotment would maintain the existing suitable habitat for pygmy rabbits and there would be no direct or indirect effects to this species.

The cumulative effects area for pygmy rabbits relative to the Nahas FFR includes the entire FFR with an area extending out four-tenths miles. This buffer simulates the greatest distance from the allotment boundary that an average male pygmy rabbit home range could extend, if it touched the boundary (Burak 2006). There would be no cumulative effects to pygmy rabbits.

Greater Sage-grouse

Although this FFR was deemed unsuitable for nesting habitat, this categorization is due to juniper encroachment and topography (i.e., rimrock presence). Consequently, current management is not responsible for degraded nesting habitat, but has minimally affected two of the three late brood-rearing habitat sites that are not protected by an exclosure. One of the two unprotected sites is a dry meadow, and likely not a desirable location for livestock congregation. It was the site of sage-grouse detection during July 2009, so current management is not impacting sage-grouse severely. Sage-grouse use in this area is likely to persist relative to grazing management but could be diminished if juniper encroachment continues to spread. Overall, direct and indirect effects of current management would have slightly negative effects on late brood-rearing habitat but would result in the continuation of sage-grouse use in this FFR.

The cumulative effects area for sage-grouse, relative to the Nahas FFR, includes the entire allotment with an area extending out two-tenths miles because habitat is likely used primarily for late brood-rearing. This buffer represents the distance from sage-grouse foraging areas (e.g. riparian zones, meadows) recommended for protection of late brood-rearing habitat for sage-grouse (Connelly et al. 2000). Retaining current grazing management would incur minimal negative effects to this habitat. Past, present, and reasonably foreseeable projects would have no effect to this habitat component (e.g. road maintenance) or have positive impacts to riparian areas (e.g. juniper removal). Therefore, the combination of the effects from this project, when combined with any from the past, present, and potentially foreseeable future projects, in and within two-tenths miles of the FFR, would not cumulatively have a negative impact on sage-grouse greater than described by direct and indirect effects from continued grazing.

Rocky Mountain Elk and Mule Deer

Elk, deer, and other herbivorous big game would not be affected by continuation of current livestock grazing because the allotment does not represent critical winter habitat. Furthermore, utilization of upland grasses would remain at or below 50% of the current year's growth, so grazing would not limit the amount of forage available to elk and deer; thus, there would be no direct or indirect effects. Since this alternative would not have direct or indirect effects to elk or deer, there would be no cumulative effects to these species resulting from the continuation of current grazing.

Migratory Birds
See the Greater sage-grouse section for a surrogate analysis for migratory birds. The Affected Environment (Section 3.5.1) provides a rationale for this approach.

3.5.3 Environmental Consequences Alternative B
The analysis areas for direct, indirect, and cumulative effects are the same as those described under Alternative A.

3.5.3.1 Direct, Indirect, and Cumulative Effects – Camas Creek Pocket
Columbia Spotted Frog
Effects for spotted frogs would be the same as described for Alternative A. There would be no direct, indirect or cumulative effects from this alternative.

Pygmy Rabbit
Effects from this alternative would be similar to those described for Alternative A. Even if grazing would be conducted earlier than July 1, increased grass utilization (and diminished pygmy rabbit habitat) would not likely occur because current grazing includes no transitioning from grass to bitterbrush late in the season since the bitterbrush component is currently declining. Therefore, seasonally shifting grazing to an earlier part of the year would convey the same effects as with current grazing management.

Greater Sage-grouse
Effects to Greater Sage-grouse would be similar to those described for Alternative A. Even though earlier grazing would mean that cattle are present during the nesting period, conditions from current management would be reflective of those achieved with Alternative A and habitat would remain suitable.

Rocky Mountain Elk and Mule Deer
Effects here would be more beneficial to elk and deer than those described for Alternative A. Although cattle utilization of upland vegetation is not limiting to elk, deer, and other herbivorous big game in the allotment, enhancing bitterbrush recovery would increase forage for these species later in the summer, when grasses begin to desiccate. Since Alternative B would have beneficial impacts to deer and elk, there would be no adverse cumulative effects to deer and elk.

Migratory Birds
See the Greater sage-grouse section for a surrogate analysis for migratory birds. The Affected Environment (Section 3.5.1) provides a rationale for this approach.

3.5.3.2 Direct, Indirect, and Cumulative Effects – Nahas FFR
Columbia Spotted Frog
Effects from Alternative B would be the same as described for Alternative A. In summary, there would be no direct, indirect, or cumulative effects to spotted frogs from this alternative.

Pygmy Rabbit
Effects from Alternative B would be the same as described for Alternative A because current use has generally been after July 1. Overall, grazing management has met Standard 4 (healthy native animal habitats and native plant populations) so even the minimal deviation of the environment from reference conditions means that pygmy rabbit habitat would not be measurably impacted.

Greater Sage-grouse
Effects would be the same as those described for Alternative A because current use has generally been after July 1. Overall, grazing management will have only small negative impacts to late brood-rearing habitat at two of the three known sites on BLM-administered public land and would not cumulatively contribute to any larger scale effects to this component of sage-grouse habitat requirements.

Rocky Mountain Elk and Mule Deer
Effects from Alternative B would be the same as described for Alternative A. There would be no direct, indirect, or cumulative effects to elk or deer.

Migratory Birds
The analysis of effects to the greater sage-grouse serves as a surrogate analysis of effects to migratory birds. The Affected Environment (Section 3.5.1) provides a rationale for this approach.

3.6 Recreation, Visual Resource Management, Wilderness, Lands with Wilderness Characteristics, Travel Management, and Wild and Scenic Rivers

3.6.1 Affected Environment
Recreation opportunities in the allotments primarily include dispersed types of activities such as driving for pleasure, big and small game hunting, off highway vehicle (OHV) riding related to hunting activities, camping, hiking, wildlife viewing, and nature photography. Driving for pleasure through on the Owyhee Backcountry Byway (discussed further later in the recreation section) is the primary recreation pursuit by the visitor. Travel Management and OHV designations are limited to the existing routes which were present at the time of the OPLMA (2009) except for the Pole Creek Wilderness Area within the allotment which is closed to motorized and mechanized vehicles. The Nahas FFR contains approximately 163 acres of the Pole Creek Wilderness Area as designated under the OPLMA. Aside from the Pole Creek Wilderness Area, there are no other lands with wilderness characteristics in the allotments. There are no designated, eligible, or suitable Wild and Scenic River segments within the allotments.

3.6.1.1 Camas Creek Pocket
The Camas Creek Pocket Allotment is 3,675 acres of mostly public land with private property on its south and east boundaries. Several north-south routes to the private property provide vehicular access to the allotment.

Visual Resource Management

The Visual Resource Management (VRM) classifications for the Camas Creek Pocket Allotment are primarily Class III (about 75%) with some class IV in the southwest area of the allotment. The objective in Class III is to partially retain the existing character of the landscape and any level of change should be moderate. In Class IV landscapes, the level of change can be high, but attempts are made to minimize the impacts of activities.

3.6.1.2 **Nahas FFR**

The Owyhee Uplands Backcountry Byway (Byway), also known as the Mud Flat Road, bisects the Nahas FFR. The Byway is a 101-mile improved gravel road between Grand View, Idaho and Jordan Valley, Oregon of which about 5 miles are within the boundary of the Nahas FFR.

Wilderness

The Byway provides access to and is the northern boundary of the Pole Creek Wilderness Area within the Nahas FFR Allotment for about 0.75 miles. The Pole Creek Wilderness was signed into law on March 30, 2009 as part of the OPLMA. The Pole Creek Wilderness values (characteristics) include its size (12,530 acres), apparent naturalness (human imprints/developments existing at time of designation), and its outstanding opportunities to experience solitude. Approximately 163 acres of the Wilderness Area is within the boundary of the Nahas FFR Allotment (Appendix A). A route from the Byway to Bullhead Reservoir included a relatively popular dispersed site for camping which was previously open to public vehicular access. Since the 2009 wilderness designation, the route is now closed to public vehicular access. The quality of dispersed "car camping" opportunities within the allotment are reduced by this route closure as other areas within the allotment would not have visual appeal or topographic and/or natural features of interest to the visitor. The OPLMA specifically provides for the continuance of livestock grazing subject to provisions deemed necessary by the Secretary of the Interior, and consistent with the Wilderness Act of 1964 and the clarifying guidelines contained in Appendix A of House Report No. 101-405 (1990). Opportunities for recreation within the Nahas FFR Allotment are limited by its size (1,664 acres) and by the amount of public lands (692 acres).

Visual Resource Management

The Visual Resource Management (VRM) classification within the Nahas FFR is Class I within the Pole Creek Wilderness area of the allotment and Class II on the non-Wilderness public lands within the allotment. The objective for Class I is to preserve the existing character of the landscape. The level of change should be very low and must not attract attention. The objective of Class II is to retain the existing character of the landscape and changes must conform to the basic elements of form, line, color and texture of natural features of the characteristic landscape.

3.6.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR Allotments (Appendix A) because effects would be limited to those areas.

3.6.2.1 **Direct and Indirect Effects – Camas Creek Pocket**

Visual resources would not improve or degrade (would be the same) since no new rangeland projects are proposed. Therefore VRM objectives for class III and IV would be met under this

alternative. Opportunities to photograph nature and view wildlife would not change from the current conditions.

3.6.2.2 **Direct and Indirect Effects – Nahas FFR**

The quality of recreation opportunities including driving for pleasure along the Owyhee Backcountry Byway, nature photography, wildlife viewing, hiking, and camping would continue to be affected by the sights and sounds of grazing activities. Wilderness values would be maintained, as they existed at the time of designation (2009), under the no change alternative. Impacts to visual resources would not be improved or degraded (would be the same) for this allotment as no rangeland projects are proposed under either alternative. Therefore VRM objectives for Class I and II would be met under this alternative.

3.6.2.3 **Cumulative Effects**

The cumulative effects analysis area is limited to the Owyhee Uplands. Relevant projects likely to occur in the foreseeable future include actions related to implementation of the OPLMA of 2009. Motorized and mechanized equipment routes in the Pole Creek Wilderness Area will be closed. Maintenance of up to 1 mile of rangeland fence along the rim of Avery Table is another reasonably foreseeable project relevant to recreation and visual resources. The overall quality of opportunities for hiking, wildlife viewing, nature photography, and to wilderness values would be enhanced due to the implementation of OPLMA. When comprehensive travel management planning is complete, as mandated by OPLMA, and if fewer routes are available for motorized access, it would be expected the quality of opportunities for off highway vehicle riding would be slightly diminished and the quality of hiking, backpacking, and wilderness values would be expected to be enhanced. The quality of opportunities for vehicular camping is diminished by the wilderness route closures. There would be no cumulative effects to visual resources because there would be no direct or indirect effects to visual resources.

3.6.3 Alternative B – Proposed Action

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR Allotments (Appendix A).

3.6.3.1 **Direct and Indirect Effects – Camas Creek Pocket**

Impacts to visual resources would not be improved or degraded (would be unchanged) as no new rangeland projects are proposed under either alternative. Therefore VRM objectives for Class III and IV would be met. The seasonal duration of grazing is greater under this alternative, compared to Alternative A, which would slightly diminish the quality of opportunities to photograph nature and wildlife viewing as the sights and sounds of grazing activities could occur during a longer period of the year if grazing adjustments are made. Bitterbrush plantings could accelerate stand recovery relative to Alternative A. Bitterbrush provides browse forage for big game species including mule deer. If restoration plantings were implemented and successful, it is likely that mule deer would be more prevalent thereby slightly enhancing the quality of opportunities to hunt big game as compared to Alternative A.

3.6.3.1.1 Nahas FFR

The quality of recreation opportunities including driving for pleasure along the Owyhee Backcountry Byway, nature photography, wildlife viewing, hiking, and camping would be

slightly enhanced as the sights and sounds of grazing activities would occur for a shorter period during the year as compared to Alternative A. Wilderness values including size of the wilderness and its outstanding opportunities to experience solitude would be maintained (unchanged) as they existed at the time of designation (2009). The wilderness value of "apparent naturalness" (not the same as ecological integrity) may be slightly enhanced by a decrease in the timing of grazing under this alternative. Impacts to visual resources would not be improved or degraded (would be the same) for this allotment as no rangeland projects are proposed under either alternative. Therefore VRM objectives for Class I and II would be met under this alternative.

3.6.4 Cumulative Effects

The cumulative effects analysis area is limited to the Owyhee Uplands. Cumulatively, the overall quality of opportunities for hiking, wildlife viewing, nature photography, and to Wilderness values would be enhanced while the quality of opportunities for vehicular camping would be diminished for the same reasons discussed under Alternative A.

3.7 Heritage and Cultural Resources

3.7.1 Affected Environment

3.7.1.1 Camas Creek Pocket

BLM records indicate that portions of the Camas Creek Pocket are located within the Camas & Pole Creeks National Register Archaeological District. This area is listed on the National Register of Historic Places because of its historic and cultural importance in the region. Archaeological investigations have documented an estimated 6,000 years of human occupation. Inventories have recorded ten isolated artifacts. The isolated artifacts are not contributory to the National Register District.

3.7.1.2 Nahas FFR

One significant site has been recorded in the Nahas FFR. The site, 10-OE-6022 is not being impacted by livestock grazing. Another site, 10-OE-7104 locates above an existing livestock pond. Any maintenance of the pond would be addressed in the proposed terms and conditions for potential impacts to this site.

3.7.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects includes BLM-administered public lands in the Camas Creek Pocket and Nahas FFR Allotments (Appendix A) because effects to heritage and cultural resources would be limited to those areas.

3.7.2.1 Direct and Indirect Effects – Camas Creek Pocket

BLM records indicate that the pasture is located in the Camas & Pole Creeks National Register Archaeological District. There are 10 isolated artifacts recorded in the Camas Creek Pocket. The isolated artifacts are not contributory to the National Register District. Issuing the grazing permit would not have an effect on known sites in the allotment.

3.7.2.2 **Direct and Indirect Effects – Nahas FFR**

The affected grazing allotments contain one significant cultural property, eligible for or listed on the National Register of Historic Places. Another site, 10-OE-7104 locates above an existing livestock pond. Any maintenance of the pond would be addressed in the proposed terms and conditions for potential impacts to this site. Issuing the grazing permit would not have an effect on the known sites in the allotment.

3.7.2.3 **Cumulative Effects**

The cumulative effects analysis area is limited to the Owyhee Uplands. The affected grazing allotments contain properties eligible for or listed on the National Register of Historic Places. There would be no known cumulative effects because issuing the grazing permit would not have a direct or indirect effect on known sites in the allotments.

3.7.3 Environmental Consequences Alternative B

The analysis area for direct and indirect effects is the same as Alternative A.

3.7.3.1 **Direct and Indirect Effects - Camas Creek Pocket**

Issuing the grazing permit would not have an effect on known sites in the allotment. Impacts from proposed hand planting of bitterbrush would be exempted from site specific inventory and project specific consultation with the Idaho State Historic Preservation Office per the Idaho BLM / SHPO Protocol of the BLM National Programmatic Agreement.

3.7.3.2 **Direct and Indirect Effects - Nahas FFR**

The affected grazing allotments contain one significant cultural property, eligible for or listed on the National Register of Historic Places. Another site, 10-OE-7104 locates above an existing livestock pond. Any maintenance of the pond would be addressed in the proposed terms and conditions for potential impacts to this site. Issuing the grazing permit would not have an effect on known sites in the allotment.

3.7.3.3 **Cumulative Effects**

The affected grazing allotments contain properties eligible for or listed on the National Register of Historic Places. There would be no known cumulative effects because issuing the grazing permit would not have direct or indirect effects on known sites in either allotment. Impacts from proposed hand planting of bitterbrush would be exempted from site specific inventory and project specific consultation with the Idaho State Historic Preservation Office per the Idaho BLM / SHPO Protocol of the BLM National Programmatic Agreement.

3.8 Economics

3.8.1 Affected Environment

The dominant character of Owyhee County is rural and oriented toward the utilization of public land, primarily for cattle grazing. Therefore, economic and social realities of public land management in Owyhee County cannot and should not be separated. Ranchers may be directly impacted by the decisions and policies of Federal and State land agencies. Grazing policy can impact ranchers in at least five general ways:

- Grazing fees can change on public lands.
- There may be changes in the total number of AUMs allowed on Federal and/or State lands. A 'shortage' of public land AUMs may result in increased lease rates on private land grazing resources.
- There may be a change in the seasonal availability of forage use that is allowed on public lands.
- Allotments traditionally grazed by specific classes of livestock may require a change in the class of livestock allowed.
- Uncertainty created when the future direction of grazing fees and land use policies is undefined for an extended period influences availability of credit, cohesion of rural social networks, and continuation of family operations by prospective heirs.

Social and economic conditions for Owyhee County are also addressed in the Proposed Owyhee Resource Management Plan Final Environmental Impact Statement (1999).

3.8.2 Environmental Consequences Alternative A

The analysis area for direct and indirect effects is limited to Owyhee County. Social and economic impacts for Owyhee County are also addressed in the Proposed Owyhee Resource Management Plan Final Environmental Impact Statement (1999).

3.8.2.1 Direct and Indirect Effects

Continuation of the current permitted use and livestock management into the future would not affect the existing ranching operations. Future changes in those operations would be driven primarily by permittee decisions about continuing or modifying the existing livestock operations and land uses within the existing flexibility offered by these permits. Fenced sub-pastures that are primarily private lands would continue to be managed primarily in support of livestock production goals, and would not be affected by BLM actions.

3.8.2.2 Cumulative Effects

The analysis area for direct and indirect effects is limited to Owyhee County. There would be no cumulative social or economic impacts as a result of implementing this alternative.

3.8.3 Environmental Consequences Alternative B

The analysis area for direct and indirect effects is limited to Owyhee County.

3.8.3.1 Direct and Indirect Effects – Camas Creek Pocket

The amount of permitted use, class of livestock, other management practices such as salt or supplement location and maintenance responsibilities for projects would remain the same as Alternative A. The BLM would have more influence on the specific grazing practices employed in Camas Creek Pocket under this alternative, including temporary adjustments in grazing season to accommodate bitterbrush recovery. The potential for seasonal adjustments in the grazing schedule could require timing alterations in the permittee's grazing operation as it relates to Camas Creek Pocket Allotment. The alterations, while minor in comparison to the grazing operation as a whole, do represent a potential burden to the permittee due to potential uncertainties in the season of use over the short-term. The proposed season of use has the

potential to increase forage availability in Camas Creek Pocket Allotment over the long-term to the extent that bitterbrush there recovers.

3.8.3.2 **Direct and Indirect Effects – Nahas FFR**

The amount of permitted use, class of livestock, other management practices such as salt or supplement location and maintenance responsibilities for projects would remain the same as Alternative A. The proposed modifications to the permit would reduce the existing flexibility in seasonal availability of grazing use in Nahas FFR Allotment. The reduced flexibility in Nahas FFR Allotment would have little practical effect, since the three pastures containing nearly all of the public lands would still be open for use during the same season previously used by the permittee.

3.8.3.3 **Cumulative Effects**

Both permits also include spring and summer permitted use in respective portions of the adjoining Big Springs Allotment. Alternative B does not change the role of the two allotments in the existing livestock operations but does provide some additional flexibility for seasonal use of Camas Creek Pocket to the extent that allows for bitterbrush recovery. The extended season of use in Camas Creek Pocket may benefit future management of Camas Creek Pocket, Big Springs, and the Black FFR Allotments because those areas share grazing operations between permit holders. Camas Creek Pocket is generally grazed after cattle are removed from Big Springs Allotment.

3.9 **Environmental Justice**

Executive Order 12898 (February 11, 1994) directed all Federal agencies to evaluate their proposed actions to determine the potential for disproportionate adverse impacts to minority and low-income populations.

In the memorandum to heads of departments and agencies that accompanied Executive Order 12898, the President specifically recognized the importance of procedures under NEPA for identifying and addressing environmental justice concerns. The memorandum states that "each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by [NEPA]."

Implementation of any alternatives evaluated in this EA would not result in adverse impacts to environmental resources and socioeconomic conditions. Therefore, disproportionate direct, indirect or cumulative adverse impacts on low income or minority populations would not occur.

4.0 **Consultation and Coordination**

The BLM consulted numerous individuals and agencies to identify issues, develop alternatives, and prepare this EA. Members of the Bruneau Field Office Interdisciplinary Team include:

- Holly Beck, Botanist
- Michael Boltz, Rangeland Management Specialist
- Timothy Carrigan, Team Lead
- David Draheim, Recreation Planner
- Pam Druliner, Fisheries Biologist
- Lois Palmgren, Archeologist
- Bruce Schoeberl, Wildlife Biologist
- Kavian Koleini, Ecologist & Team Lead

The BLM consulted with State and local agencies in developing this EA including:

- Idaho Department of Agriculture
- Idaho Department of Fish & Game
- Idaho Department of Health & Welfare
- Idaho Department of Lands
- Idaho Department of Parks & Recreation
- Idaho State Historic Preservation Office
- Owyhee County Commission

The BLM also consulted with several non-governmental organizations in the preparation of this EA including:

- Audobon Society
- Boise District Grazing Board
- Bruneau Rodeo Association
- Committee for High Desert
- Farmers & Merchants State Bank
- High Desert Coalition
- High Desert Ecology
- Idaho Cattle Association
- Idaho Conservation League
- Idaho Environmental Council
- Idaho Native Plant Society
- Idaho Outfitters and Guides Association
- Idaho Rivers United
- Idaho Sporting Congress
- Idaho Wildlife Federation
- Intermountain Community Bank
- Land & Water Fund of the Rockies
- National Wildlife Federation
- Natural Resources Defense Council
- Oregon Natural Desert Association
- Oregon Natural Resources Council
- Sierra Club
- The Wilderness Society
- Western Watersheds Project

The BLM consulted with the Shoshone-Paiute Tribe and the Shoshone-Bannock Tribes in preparing this EA. The BLM also consulted with several private citizens known to be interested in the EA including but not limited to Chris Black (Joseph Black & Sons) and Craig & Ann Baker (Sierra Del Rio).

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Glossary

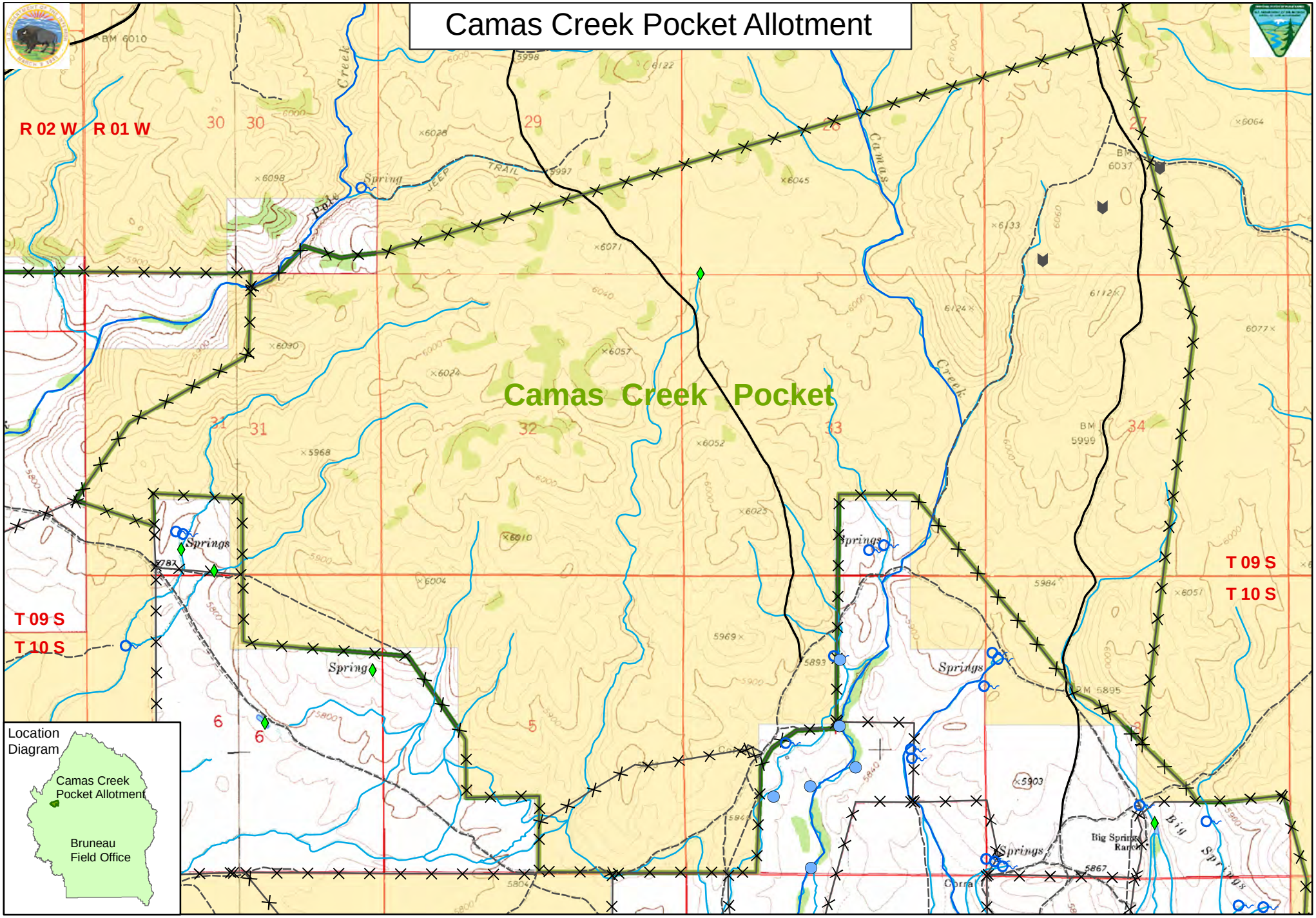
Animal unit month:	The amount of forage required by an animal unit for 1 month.
Decreaser:	Plant species of the climax vegetation that will decrease in relative amount with continued heavy defoliation (grazing).
Deferment:	Delay of livestock grazing in an area for an adequate period to provide for plant reproduction, establishment of new plants, or restoration of vigor of existing plants.
Exchange of Use	An agreement to authorize a certain amount of grazing use to someone who owns or controls private or State intermingled lands within a grazing allotment. The Exchange of Use Grazing Agreement establishes the terms and conditions under which the grazing use will be made.
Exclosure:	An area excluded from livestock utilization by means of a barrier.
Forb:	A herbaceous plant that is not a grass, sedge, or rush.
Headbox:	A collection area for water at or near a spring.
Increaser:	The climax native plants in a community of different plants that, under excessive continuous grazing by livestock, are not selected initially, and increase in abundance.
Lek:	An assembly area for communal courtship displays
Licensed use:	The season, livestock numbers, and amount of use authorized by the BLM billings.
Permittee:	One who holds a permit to graze livestock on State, Federal, or certain privately-owned lands.
Tuff:	Volcanic ash usually more or less stratified and in various states of consolidation.
Turnout:	Act of turning livestock out on rangeland at the beginning of the grazing season.

Acronyms

AUMs	animal unit month
BLM	Bureau of Land Management
BPU	Bruneau Planning Unit
CESA	cumulative effects study area
CFR	Code of Federal Regulations
EA	environmental assessment
FLMPA	Federal Land Management and Policy Act
FFR	federally fenced range
IDFG	Idaho Department of Fish and Game
MFP	management framework plan
NEPA	National Environmental Policy Act
OHV	off highway vehicle
OPLMA	Omnibus Public Lands Management Act of 2009
RAC	resource advisory council
S&Gs	Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management
SSP	special status plants
VRM	visual resource management

Appendix A

Camas Creek Pocket Allotment



Compiled: June 2011 BLM
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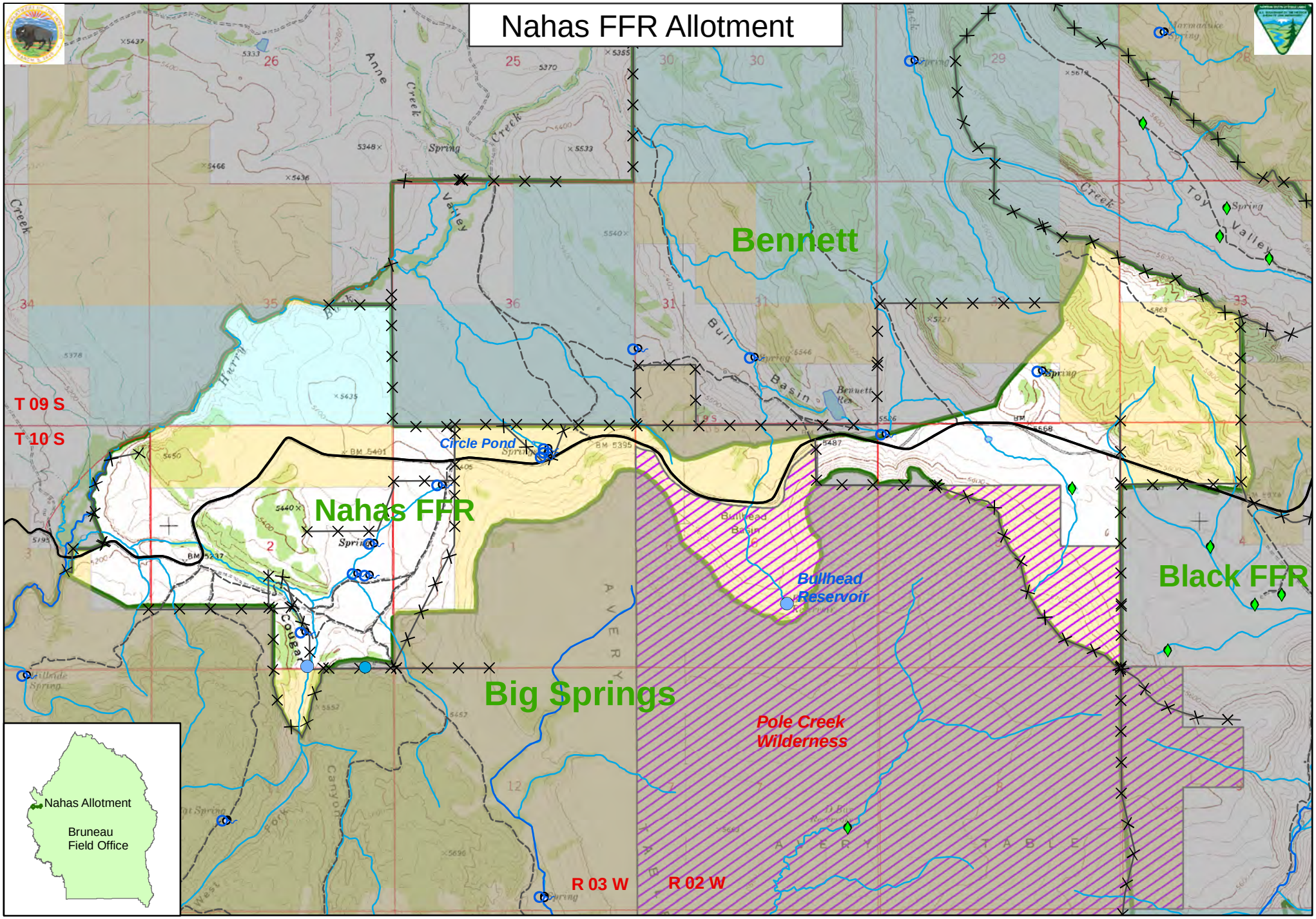

Legend

TROUGH, POND, RESERVOIR, WATERHOLE, SPRING, Streams, Minor Streams, Fences, Major Roads, Roads & trails, Wilderness, PLSS Sections, Allotments, BLM, PRIVATE, STATE

0 0.5 1 Miles

Compiled: Jan 2011 BLM
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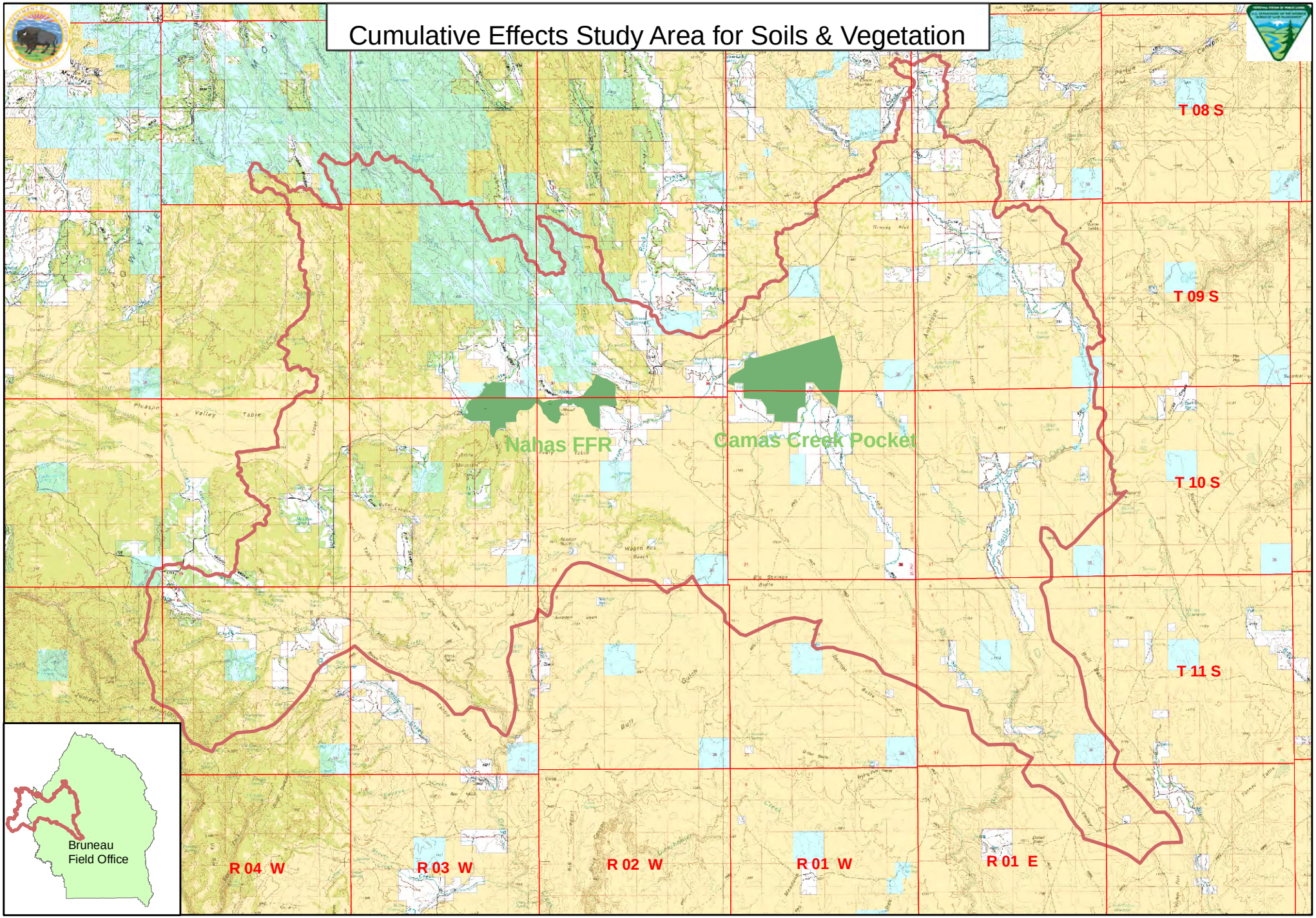
N

Cumulative Effects Study Area for Soils & Vegetation



BLM
PRIVATE
STATE
Cumulative Effects Study Area
Grazing Allotments

1:250,000

N

0 5 10 Miles

Compiled: Nov 2010 BLM
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Appendix B

Boise District Range Readiness Worksheet

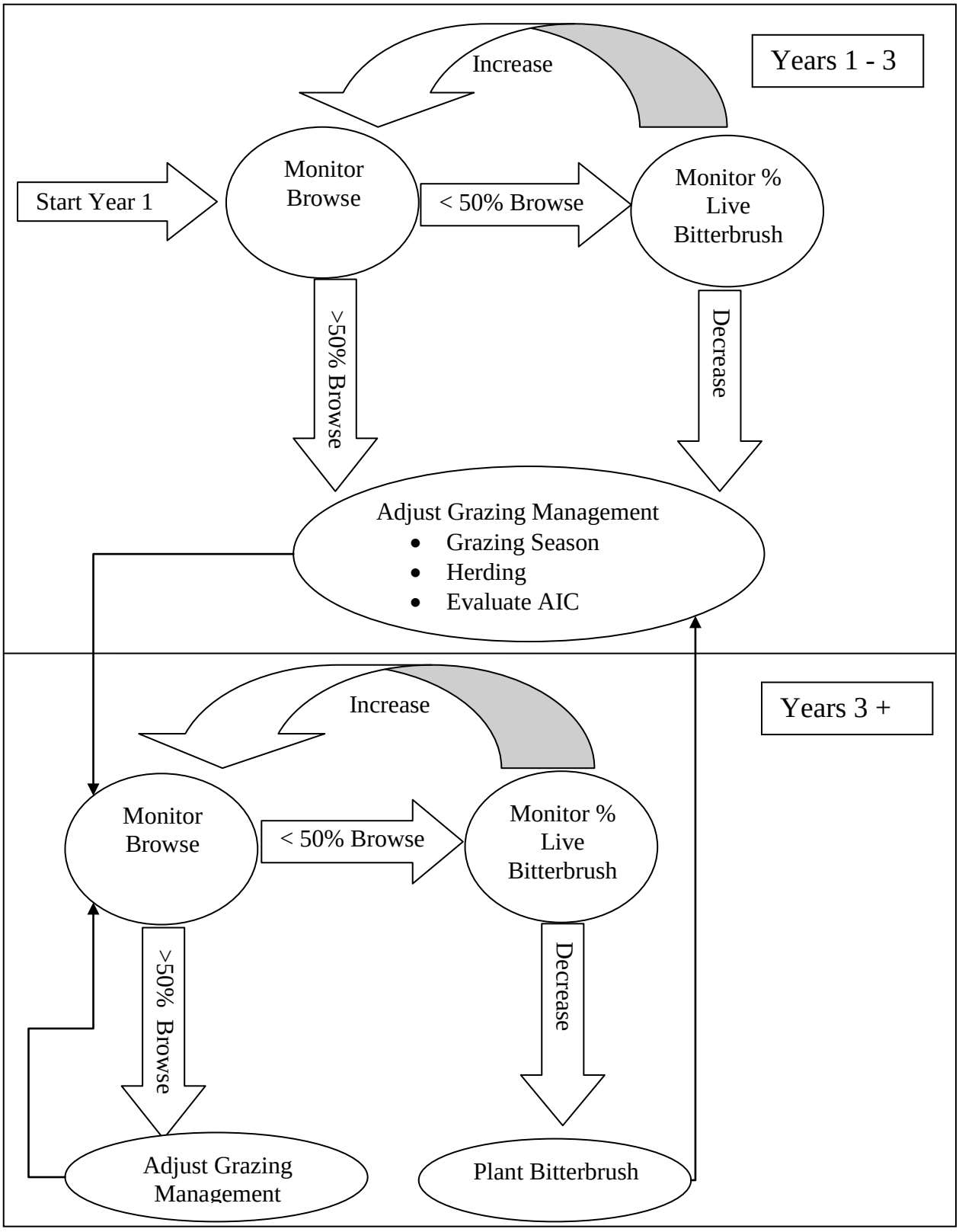
Date:_____ Allotment: _____

Field Office: _____ Pasture: _____

Recorded by: _____ UTM/Legal: _____

Plant Species	Range Readiness Criteria	Recorded Condition
POSA3 (Sandberg bluegrass)	Greater than 1" active growth and seed stalks forming	
SIHY (squirreltail)	Average 3-4" active growth with old growth present or 5" active growth without old growth	
AGSP (bluebunch)	4" active growth with old growth present or 6" active growth without old growth	
FEID (Idaho fescue	3-4" active growth with old growth present or 5" active growth without old growth	
Soils	No evidence of puddles or frost, soil firm. Sufficient soil moisture exists to allow adequate regrowth on spring/fall range.	

Appendix C



This chart depicts how monitoring and the Annual Indicator Criteria (AIC) would interact to achieve the objective for bitterbrush in the Camas Creek Pocket Allotment.

Appendix D

Photo 1: Upland Vegetation of the Camas Creek Pocket Allotment, July 2009

Photo 2: Upland Vegetation of the Camas Creek Pocket Allotment, July 2009

Photo 3: Upland Vegetation of the Nahas FFR Allotment, July 2009

Photo 4: Circle Pond Livestock Exclusion, Nahas FFR Allotment, July 2009

Appendix E

Idaho BLM Special Status Animal Species known or potentially in the Bruneau Field Office

Type 1. Federally Listed, Proposed and Candidate Species: Includes species that are listed under the Endangered Species Act as Threatened (T) or Endangered (E), and proposed (P) or candidates (C) for listing.

Type 2. Range wide / Globally Imperiled Species: Includes species that are experiencing significant declines throughout their range with a high likelihood of being listed under the Endangered Species Act in the foreseeable future due to their rarity and/or significant endangerment factors. These species are addressed individually in the plan.

Type 3. Regional / State Imperiled Species: Includes species that are experiencing declines in population or habitat and are in danger of regional or local extinctions in Idaho in the foreseeable future.

Type 4. Peripheral Species in Idaho: Includes species that are generally rare in Idaho with the majority of their breeding range outside the State.

Type 5 - Watch List Species (not included): Includes species that are not considered Idaho BLM sensitive species but current population or habitat information suggests that species may warrant sensitive species status in the future.

Species seen or could potentially use Camas Creek Pocket or Nahas FFR Allotments

Species	Habitat Needs; *Threats*	Type
Columbia Spotted Frog *(Rana luteiventris)* - Great Basin Population only (C)	Ponds and slow moving, meandering streams (Gomez 1994)	1
Greater Sage-grouse (*Centrocercus urophasianus)*	Sagebrush-obligate, uses wet meadows in summer; currently warranted but precluded for listing as endangered.	2
Pygmy Rabbit *(Brachylagus idahoensis)*	Thick big sagebrush with deep soils; currently known from mahogany savannah along Mudflat Rd, Wickahoney, Grasmere, and Riddle areas; eats roughly 50% forbs and grass and 50% sagebrush during the summer and 99% sagebrush during the winter (Green and Flinders 1980)	2
Spotted Bat *(Euderma maculatum)*	Rocky canyons and cliffs, forages over sage and juniper, primarily on moths (Harvey et al. 2000); *Loss/disturbance to roosting sites* (ISCE 1995) *and degradation of foraging habitat* (Christy and West 1993)	3
Townsend's Big-eared Bat *(Plecotus townsendii)*	Maternal and winter hibernacula in caves or abandoned mines and forages over various habitats (Christy and West 1993, ISCE 1995); *Loss/disturbance to roosting sites and degradation of foraging habitat* (IBID)	3
Ferruginous Hawk *(Buteo regalis)*	Open country, nests on ground or rock outcrops	3
Loggerhead Shrike *(Lanius ludovicianus)*	Nests in tall sagebrush	3
Sage Sparrow *(Amphispiza belli)*	Sagebrush-obligate	3
Brewer's Sparrow *(Spizella breweri)*	Sagebrush-obligate	3
Common Garter Snake *(Thamnophis sirtalis)*	Wide variety of habitats from aquatic, wetland and uplands (NatureServe 2009c); usually associated with water (Cossell 1998c)	3
Western Toad *(Bufo boreas)* -(Northern Rocky Mountain Group only)	Proximate to water in variety of habitats, from brushy desert flats to mountain meadow (Cossel 1998d)	3
Black-throated Sparrow *(Amphispiza bilineata)*	Edge of species range; sagebrush draws	4

[1] *Endangered Species Act Status: E = Endangered, T = Threatened, P = Proposed for Listing, C = Candidate for Listing*