

## BIG SPRINGS ALLOTMENT EVALUATION REPORT

Located in Owyhee County, Idaho, near the towns of Grand View, Triangle, and Riddle, the Big Springs Allotment is located along the northern margin of the Owyhee River Canyon. Landmarks within or bordering the allotment include the Mud Flat Road (Backcountry Byway) on the north, Deep Creek Canyon on the west, Battle Creek Canyon on the east, and the Owyhee River Canyon on the south. Slack Mountain, Avery Table, Dickshooter Ridge, Big Springs Butte, Spencer Butte, and Frying Pan Basin are named landmarks within the boundaries of the allotment.

Elevations range from 6,132 feet on Big Springs Butte, 5,855 feet on Slack Mountain and around 6,000 feet in the area near Big Springs Ranch to about 5,100 feet along the rim of the Owyhee River Canyon. The terrain is a generally level plateau that slopes gradually downward from north to south toward the Owyhee River. The plateau is dissected by deep canyons tributary to the Owyhee River. Landforms consist of foothills and structural benches both in the higher elevation areas and in the lower elevation areas bordering the Owyhee River Canyon. Landforms consist of tablelands in the mid-elevation portions of the respective Use Areas.

Portions of the Big Springs Allotment lie within two Wilderness Areas (WAs) (Table 1). The Owyhee River Wilderness Area borders the allotment on the south and extends up the lower canyon of Deep Creek and Battle Creek from their confluences with Owyhee River. The Pole Creek Wilderness Area occupies the north-central portion of the allotment, extending along the canyons of Pole and Camas Creeks near the Mud Flat Road. The Wilderness Areas are centered on major canyon systems with high scenic values.

Table 1. Acreage of Congressional and BLM Special Designations within the three Use Areas, Big Springs Allotment.

Special Designation	Acres <sup>1</sup>			
	SDR <sup>2</sup>	JB&S <sup>2</sup>	DCC <sup>2</sup>	Pasture 5
Owyhee River WA	1,957	26,060	12,027	0
Pole Creek WA	4,714	7,223	0	0
Camas and Pole Creeks National Register District	8,126	20,038	389	87
Owyhee River Bighorn Sheep ACEC	4,233	15,971	9,449	0

<sup>1</sup>public land only, overlapping acreages

<sup>2</sup>SDR- Sierra Del Rio, JB&S- Joseph Black & Sons, DCC- Dickshooter Cattle Co.

The Big Springs Allotment also includes portions of the Camas and Pole Creeks National Register District and of the Owyhee River Bighorn Sheep Area of Critical Environmental Concern (ACEC). The National Register District recognizes cultural resource values, and the ACEC benefits California bighorn sheep populations inhabiting the major canyon systems. The ACEC has a high degree of overlap with the Owyhee River WA; and the National Register District has substantial overlap with the Pole Creek WA.

The current total permitted use for livestock grazing in the Big Springs Allotment is shown below in Table 2. The former R. T. Nahas permit was transferred to Sierra Del Rio in 2003. The former Owens Ranches permit was transferred to Dickshooter Cattle Co. in 1995. The Joseph Black & Sons permit was split into two permits through transfer in 2002.

Table 2. Summary of total permitted use, active permitted use, suspended use, Exchange-of-Use, permitted season of use, and nominal cattle numbers for individual permittees in the Big Spring Allotment (1987 - present).

Allotment	Permittee	Number of Livestock	Season of Use	Active Use	Susp. Use	Total Permitted Use	Exchange of Use	Total Use
Big Springs (0803)	Sierra Del Rio	547	May 1 – October 15	3,021	0	3,021	322	3,343
	Joseph Black & Sons	394	April 1 – October 31	2,793	0	2,793	225	3,018
	Joseph Black & Sons	219	April 1 – October 31	1,541	0	1,541	0	1,541
	Dickshooter Cattle Co.	1747	April 1 – September 30	10,627	0	10,627	669	11,296
	<b>Total</b>				17,982	0	17,982	1,216

All four permits provide flexibility in livestock numbers as long as total AUMs are not exceeded and use is within the permitted period of use. Nominal livestock numbers shown in Table 2 are for cattle and horses.

## EVALUATION REPORT

### Achieving the Idaho Standards for Rangeland Health

Field Office: ID 120 Evaluation Date(s): September 30, 2011  
 Grazing Allotment Name/Number: Big Springs 0803- Sierra Del Rio (SDR) Use Area  
 Name of Permittee(s): Sierra Del Rio (GRN# 1100227)

### STANDARDS APPLICABLE

Standards 1, 2, 3, 4, 7 and 8 are applicable to the Sierra Del Rio Use Area of the Big Springs Allotment.

An Evaluation is conducted to arrive at two outcomes (H-4180-1 page I-3):

- Firstly, an Evaluation conducts an analysis and interpretation of the findings resulting from the Assessment, relative to land health Standards, to evaluate the degree of achievement of land health Standards.
- Secondly, an Evaluation conducts an analysis and interpretation of information – be it observations or data from inventories and monitoring – on the [potential] causal factors for not achieving a land health Standard. An Evaluation of the suspected causal factors provides the foundation for a Determination.

BLM is further directed to evaluate all the data for each subdivided unit (i.e. allotment, watershed) to identify cause-effect relationships and draw conclusions about whether or not each Standard is being met for the Evaluation area as a whole (H-4180-1 page III-10).

### EVALUATE STANDARDS

#### Standard 1 (Watersheds)

Standard doesn't apply

Watersheds provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- The amount and distribution of ground cover, including litter, for identified ecological site(s) or soil-plant associations are appropriate for site stability.
- Evidence of accelerated erosion in the form of rills and/or gullies, erosional pedestals, flow patterns, physical soil crusts/surface sealing, and compaction layers below the soil surface is minimal for soil type and landform.

#### Related Management Framework Plan (MFP) Objectives:

WS 1: Maintain stability of 408,300 acres of moderate . . . erosion hazard classes by reducing or minimizing wind and water erosion.

#### Related Management Framework Plan (MFP) Decisions:

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.

### ***Evaluation and Information Sources:***

***Rangeland Health:*** Rangeland Health Evaluation Summary worksheets were completed in all portions of this Use Area during July and August, 2004. Dry over-winter conditions continued through April, 2004, with above-normal precipitation during May and June, 2004.

#### **Areas where Standards Met**

This standard is being met in over 85 percent of Pasture 7N and in over 90 percent of Pasture 7.

#### **Areas where Standards Not Being Fully Met**

The standard is not being fully met (at least two key indicators (2&3) have a moderate or greater departure from reference conditions) in over 20 percent of Pasture 7S (with two RHE sites in the Big Point area showing the most departure). Where livestock use is limited and there is light use the standard is being better met in this pasture (approximately 80 percent). Preferred areas with water sources show the most deviation from this standard in all pastures. This accounts for the areas in Pasture 7N and 7 (15 and 10 percent respectively) that are not fully meeting this standard. The loamy sites as well as some of the churning clay sites, flatter non-stony areas where livestock tend to congregate, also exhibit more of a departure from the standard and are included in these figures.

***Rangeland Health Changes:*** The trend studies in the SDR Use Area were read five times, with several changes in grazing practices occurring between 1983 and 2004. The studies were not read during the driest years during that period, and cover of biological soil crust and grass species were not recorded separately in some years; therefore, the exact timing of changes in basal cover categories cannot be determined. Mortality, recruitment, and litter accumulation often occur over several years, and trends may not become evident immediately.

The trend in bare ground and basal bunchgrass cover was generally static throughout the area. Trend in persistent and non-persistent litter fluctuated as influenced by precipitation variability. For more detailed trend data see the Assessment.

Shallow Breaks 14-18" ecological sites normally support scattered juniper, but the northern portion of the pasture has western juniper encroachment reported at 9 of the 15 sites.

#### **Areas where Standards Met**

Most portions of Pasture 7N (over 85 percent) and Pasture 7 (over 90 percent) are meeting this standard with the exception of some historic erosional features (water flow patterns and pedestalled interspatial plants). The shallow-claypan, loamy, and shallow-break ecological sites are in the best condition with the plant community functioning adequately under this standard.

#### **Areas where Standards Not Being Fully Met**

Indicators in Pasture 7S include accelerated erosional processes (pedestalled plants, physical soil crusts) which in preferred areas are still slightly active, with excessive amounts of bare

ground, and plant community degradation as it reflects watershed health and function. Much of the departure has to do with past grazing practices. However, at RHE areas 12S03W12B and 12S02W05, minor active erosion from surface flow patterns was noted, while more localized evidence of minor erosion occurred at 11S02W29, 11S02W19, and 12S02W18. There is also more sign of hoof shearing and other forms of physical damage to the soils than expected (documented on worksheets and in photos).

**Information Sources:** Rangeland Health Evaluation Summary Worksheets from 2004, Trend and Photo Site data from 1987 to 2004, Soils and ESI data from 1979 to 1983, personal site visits from 1981 to 2009.

**Potential Causal Factors:**

**Areas where Standards Met**

Grazing in Pasture 7N occurs from late July to October. The pasture is grazed at the discretion of the permittee in terms of livestock movement. Grazing in this pasture occurs after the critical growth period for the key forage species.

Grazing in Pasture 7 occurs generally from sometime in June into July. This is usually after the critical growth period for the key forage species and soils are dry.

**Areas where Standards Not Being Fully Met**

Currently Pasture 7S is grazed from about May 1 to sometime in June. The pasture is grazed at the discretion of the permittee in terms of livestock movement. Grazing occurs during the critical growth period for the key forage species every year.

**Evaluation Finding – Allotment is:**

- Meeting the Standard (most areas of Pastures 7N and 7 and 80% of 7S)
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard (20% of Pasture 7S)

**Rationale:**

Accelerated erosional processes (pedestalled plants, physical soil crusts) are still slightly active in preferred areas in Pasture 7S, with excessive amounts of bare ground. Western juniper encroachment on the loamy sites is currently only a minor factor on the rating of indicators for this standard but has the potential to influence the ability of these areas to meet the standard in the future.

**Standard 2 (Riparian Areas and Wetlands)**

Standard doesn't apply

Riparian-wetland areas are in properly functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- The riparian/wetland vegetation is controlling erosion, stabilizing streambanks, shading water areas to reduce water temperature, stabilizing shorelines, filtering sediment, aiding in floodplain development, dissipating energy, delaying flood water, and increasing recharge of groundwater appropriate to site potential.

- Riparian/wetland vegetation with deep strong binding roots is sufficient to stabilize streambanks and shorelines. Invader and shallow rooted species are a minor component of the floodplain.
- Age class and structural diversity of riparian/wetland vegetation is appropriate for the site.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: Improve fisheries physical habitat to fair and good condition by 1989 in 144 stream miles that are in poor or fair condition. . . . Special priority should be given to improve habitat of redband trout (a sensitive species).

WL 4: Manage upland game and waterfowl habitats in the Bruneau Planning Unit (BPU) to increase populations of these highly desired species.

WL 6: Manage all meadows and riparian habitat . . . to obtain a maximum diversity of vegetative species in order to provide for a maximum diversity and optimum abundance of wildlife species.

**Related Management Framework Plan (MFP) Decisions:**

WL-AQ 2.1: Upgrading fisheries habitat condition for red band trout and riparian associated wildlife will be the primary management objective on these [94.4] stream miles. [including an identified 3.40 mile segment of Pole Creek within or bordering this Use Area. . . . If intensive livestock management practices are implemented as the primary method to improve fisheries habitat condition, resource response would be carefully monitored. If habitat condition objectives are not being met, livestock would be excluded. Maintain an upward trend and fair to good condition on stream segments if livestock use is reintroduced after a period of rest.

WL-AQ 2.2: Improve fisheries habitat from poor and fair to a good condition through intensive livestock management on riparian areas of 40 stream miles. . . . [including 3.88 miles of Pole Creek within this Use Area]. Intensive livestock management should be applied with goals directed at insuring that riparian areas receive only light to moderate livestock use to attain good habitat condition. . . .

WL-AQ 2.4: Improve fisheries habitat on 16 stream miles by increasing in-stream cover by at least 50% in. . . . [an identified 1.0 mile segment of Nickel Creek within this Use Area]. In-stream cover can be increased through the addition of juniper trees along cut banks, placement of large boulders and/or debris jams, and excavation to create pools. . . .

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.

WL 6.1: . . . riparian and meadow habitats will be managed to attain and/or maintain a good ecological condition class. . . . or reasonable equivalent. Specifically:

- Employ livestock management systems/practices/improvements including exclusion of grazing where necessary

***Evaluation and Information Sources:******Rangeland Health:*****Summer Use (Pastures 7N and 7NC)**

This standard is being met on less than one-half of the streams (5.1 miles of 12.9 stream miles) in Pasture 7N.

Three miles of Deep Creek adjacent to Mud Flat road in the northern portion of the pasture, several unconfined valley reaches of Camel Creek (totaling 0.6 mile in length) with extremely degraded floodplains, and accessible reaches of Pole Creek (totaling 0.7 mile in length) are not meeting the standard, with inadequate establishment and expansion of late-seral riparian vegetation needed to stabilize banks and channels. One mile of Deep Creek (Segment 29) is not meeting the standard because elevated sediment levels delivered from degraded channels upstream of this Use Area restrict recruitment and growth of riparian vegetation. About 1.5 miles of Camel Creek are functioning at risk because of historical watershed impacts (is moisture-limited and cannot grow riparian vegetation needed for stabilization), and another 1 mile of stream is well-vegetated with late-seral riparian plant communities, but is functioning at risk because of the presence of active headcuts.

One-half of the 12 wetlands at springs in Pasture 7N are meeting the standard. Three springs have been developed to provide water for livestock by piping water to troughs, but the wetlands were not excluded from livestock use when the springs were developed. These wetlands are functioning at risk due to reduction in wetland area. Additionally, three undeveloped springs are functioning at risk due to low vigor and density of wetland vegetation, and mechanical disturbance to wetland soils that are contributing to increased erosion and sedimentation.

**Late Spring/Early Summer (Pasture 7)**

Standard 2 is being met on 8.9 miles of Deep and Pole creeks located in Pasture 7.

The standard is not being met on 6 miles of Camel, Deep, Nickel, and Pole creeks in Pasture 7 that are inadequately vegetated with bank-stabilizing species. In particular, willow cover is low relative to site potential. Another 1.7 miles of Deep Creek is not meeting the standard because excessive sediment delivery from upstream sources outside of this allotment is preventing the establishment of vegetation needed to stabilize streambanks and channels.

Three wetlands at undeveloped springs in Pasture 7 are not meeting the standard. These wetlands are functioning at risk due to low vigor and density of wetland vegetation; and mechanical disturbance to wetland soils is contributing to increased erosion and sedimentation.

**Mid-Spring Use (Pasture 7S)**

Standard 2 is being met on 19.1 miles of Deep, Dickshooter, and Pole creeks in Pasture 7S. Additionally, 1.6 miles of Deep Creek are in functioning at risk condition with a slow upward trend in riparian health, and are making significant progress towards meeting the standard.

One spring wetland in Pasture 7S was not assessed for functioning condition. However, the health of this wetland is good, as use of wetland vegetation was low, with little to no disturbance of wetland soils.

***Rangeland Health Changes:*****Summer Use (Pastures 7N and 7NC)**

Segments of Deep Creek are lacking in cover and density of bank-stabilizing species (willows and sedges). Similarly, segments of Pole Creek that are not meeting the standard have reduced willow cover relative to site potential, and cover and vigor of desirable herbaceous species (sedges and rushes) are also reduced. Portions of Camel Creek have degraded floodplains, where loss of soil and soil moisture is impacting the ability of this reach of Camel Creek to grow obligate riparian vegetation. Segments in functioning at risk condition had static trends, except Segment Deep 032, which appeared to have a slow upward trend in riparian shrub cover. No repeated assessments or inventories have been conducted on Pole Creek.

**Late Spring/Early Summer (Pasture 7)**

Easily accessible portions of Camel, Deep, Nickel, and Pole creeks are lacking in cover and density of riparian plants needed to stabilize streambanks and channels. Photos show a static trend in Segment 7.8 of Pole Creek and a static trend in the condition of lower Camel Creek in Pasture 7.

**Mid-Spring Use (Pasture 7S)**

Accessible portions of Deep Creek have a slow upward trend in functioning condition because of efforts by the livestock operator to ensure no livestock are left on Deep Creek in Pasture 7S past the mid-spring grazing use period. This has resulted in a slow upward trend in willow recruitment and growth on Deep Creek in the middle portion of Pasture 7S.

***Information Sources:*** Stream and spring Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian habitat inventories and monitoring conducted during 1995, 1998-2001, and 2004-2005.

***Potential Causal Factors:*****Areas where Standards Met**

Canyons restrict livestock access to stream segments.

Large amounts of rock in the floodplain help stabilize stream channels and floodplains and limit livestock use.

Efforts by the livestock operator ensure that no livestock are left past mid-spring. Spring grazing is conducive to improvements in streambank vegetation and stream channel health.

**Areas where Standards Not Being Met**

Livestock favor wetlands and riparian areas associated with streams because of the lush forage and availability of water and shade. The congregation of livestock can result in high grazing use of vegetation and mechanical disturbance from hoof action, especially during the hot season. Grazing occurs annually during the hot season on approximately 4.3 miles of Camel, Deep, and Pole Creeks in pastures 7N and 7NC, and on 6 miles of Camel, Deep, Nickel, and Pole creeks in Pasture 7. Just 0.1 mile of Camel Creek is located in Pasture 7, but is fenced such that livestock congregate on this portion of Camel Creek.

Elevated sediment levels being delivered from degraded channels upstream of this Use Area are restricting recruitment and growth of riparian vegetation on a stream segment.

Historical watershed impacts resulting in loss of soil and soil moisture on degraded floodplains are impacting the ability to grow obligate riparian vegetation where still present on a stream segment.

Active headcuts are present.

Wetlands not excluded from livestock use when the springs were developed are functioning at risk due to reduction in wetland area and high levels of livestock use.

Undeveloped springs are functioning at risk due to high levels of livestock use of wetland vegetation, and mechanical disturbance to wetland soils is contributing to increased erosion and sedimentation.

**Areas where Standards Not Being Met but Significant Progress is Evident**

The livestock operator has made efforts to ensure no livestock are left on Deep Creek in Pasture 7S past the mid-spring grazing use period.

***Evaluation Finding – Allotment is:***

\_\_\_\_\_ Meeting the Standard

  X   Not meeting the Standard, but making significant progress towards meeting it (in Pasture 7S)

  X   Not meeting the Standard (on easily accessible portions of Camel, Deep, Nickel and Pole Creeks and on 9 of 15 springs in Pastures 7N, 7NC, and 7)

***Rationale:***

The majority of riparian habitat within the allotment (33.1 of 50.2 miles) is meeting the standard. However, 10.3 miles of stream are functioning at risk with a static trend in condition and is not meeting the standard (pastures 7N, 7NC, and 7). These segments have inadequate establishment and expansion of late-seral riparian vegetation that is needed to fully stabilize banks and channels and/or have active headcuts.

Wetland areas at springs comprise a relatively small proportion of the total riparian and wetland habitat in these pastures. However, 9 of 15 wetlands assessed for functioning condition currently have low vigor and density of wetland vegetation or mechanical disturbance to wetland soils. Additionally, three wetlands are not meeting the standard in part because livestock water developments have reduced their respective areas.

**Standard 3 (Stream Channel/Flood Plain)**

Standard doesn't apply

Stream channels and floodplains are properly functioning relative to the geomorphology (e.g., gradient, size, shape, roughness, confinement, and sinuosity) and climate to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- Stream channels and floodplains dissipate energy of high water flows and transport sediment. Soils support appropriate riparian-wetland species, allowing water movement, sediment filtration, and water storage. Stream channels are not entrenching.

- Stream width/depth ratio, gradient, sinuosity, and pool, riffle and run frequency are appropriate for the valley bottom type, geology, hydrology, and soils.
- Streams have access to their floodplains and sediment deposition is evident.
- There is little evidence of excessive soil compaction on the floodplain due to human activities.
- Streambanks are within an appropriate range of stability according to site potential.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives and Decisions:**

The WL-AQ 2 Objectives and Decisions listed under Standard 2 are also relevant for Standard 3.

***Evaluation and Information Sources:***

***Rangeland Health:***

**Summer Use (Pastures 7N and 7NC)**

This standard is being met or significant progress towards the standard is being made on less than one-half of the streams (5.1 miles of 12.9 stream miles) in Pasture 7N.

Three miles of Deep Creek adjacent to Mud Flat road in the northern portion of the pasture, several unconfined valley reaches of Camel Creek (totaling 0.6 mile in length) with extremely degraded floodplains, and 0.7 mile of accessible reaches of Pole Creek are not meeting the standard. One mile of Deep Creek (Segment 29) is not meeting the standard because elevated sediment levels delivered from degraded channels upstream of the Allotment restrict expansion of riparian vegetation required to stabilize channels. About 1.5 miles of Camel Creek are functioning at risk because of historical watershed impacts, and another 1 mile of stream is functioning at risk because of the presence of active headcuts.

**Late Spring/Early Summer (Pasture 7)**

Standard 3 is being met or and significant progress towards the standard is being made on 8.9 miles of Deep and Pole creeks located in rugged, rocky canyons or rocky floodplains that contribute towards channel and bank stability.

The standard is not being met on 6 miles of Camel, Deep, Nickel, and Pole creeks in Pasture 7 that are located in floodplains containing little rock to armor channels and streambanks. These stream segments are over-widened and shallow relative to the landscape setting. Another 1.7 miles of Deep Creek is not meeting the standard, because excessive sediment delivery from upstream sources is causing excessive scouring and deposition.

**Mid-Spring Use (Pasture 7S)**

Standard 3 is being met on 19.1 miles of Deep, Dickshooter, and Pole creeks in Pasture 7S. These stream segments have rocky floodplains, are located in rugged canyons, and are in PFC. Additionally, 1.6 miles of Deep Creek are in Functioning at Risk condition, with a slow upward trend in channel health and are making significant progress towards meeting the standard.

**Rangeland Health Changes:** Generally, establishment and expansion of late-seral riparian vegetation is needed to stabilize banks, floodplains and channels that are not meeting the standard.

**Summer Use (Pastures 7N and 7NC)**

Trends in riparian plant communities on segments of Deep Creek, Pole Creek, and portions of Camel Creek that have degraded floodplains are described under Standard 2.

**Late Spring/Early Summer (Pasture 7)**

Trends on portions of Camel, Deep, Nickel, and Pole creeks are also described under Standard 2.

**Mid-Spring Use (Pasture 7S)**

Accessible portions of Deep Creek have a slow upward trend in functioning condition. This has resulted in a slow upward trend in bank and channel stabilization of Deep Creek in the middle portion of Pasture 7S.

**Information Sources:** Stream Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian habitat inventories and monitoring conducted during 1995, 1998-2001, and 2004-2005.

**Potential Causal Factors:**

Potential causal factors affecting current streambank and stream channel condition are listed under the Evaluation for Standard 2.

**Evaluation Finding – Allotment is:**

- Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it (in Pasture 7S)
- Not meeting the Standard (on easily accessible portions of Camel, Deep, Nickel and Pole Creeks in Pastures 7N, 7NC, and 7)

**Rationale:**

The majority of stream channels within the allotment (33.1 of 50.2 miles) are meeting the standard. However, 10.3 miles of stream are functioning at risk with a static trend in condition and is not meeting the standard and is not showing progress toward the standard in Pastures 7N, 7NC, and 7.

**Standard 4 (Native Plant Communities)**

Standard doesn't apply

Healthy, productive, and diverse native animal habitat and populations of native plants are maintained or promoted as appropriate to soil type, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- Native plant communities (flora and micro biotic crusts) are maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant species.

- The diversity of native species is maintained.
- Plant vigor (total plant production, seed and seedstalk production, cover, etc.) is adequate to enable reproduction and recruitment of plants when favorable climatic events occur.
- Noxious weeds are not increasing.
- Adequate litter and standing dead plant material are present for site protection and for decomposition to replenish soil nutrients relative to site potential.

**Related Management Framework Plan (MFP) Objectives:**

RM 1: Develop range programs and management techniques to:

- Increase 333,552 acres currently in poor range condition to fair condition in 20 years.
- Increase 343,522 acres currently in fair condition to good condition in 20 years.
- Maintain the condition class of 283,849 acres currently in good and excellent condition.

RM 3: Allocate livestock forage in each of the allotments in the Bruneau Planning Unit within the limits necessary to maintain and/or enhance the range and soil resource.

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.

**Related Management Framework Plan (MFP) Decisions:**

RM 1.1 (1): Implement intensive management (AMPs) on 14 allotments [including Big Springs]. Specifically:

- Livestock grazing management of . . . antelope winter/early spring ranges will be designed (system and season of use) to improve habitat conditions for wintering antelope.

RM 1.4: Develop livestock management facilities needed for implementation of AMPs and/or grazing systems which are designed to reach or maintain objectives and decisions throughout the MFP.

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 . . . Reduce livestock use levels from 16,248 to 14,254 AUMs over a 5 year implementation period based upon monitoring. [this was not implemented due to the lack of sufficient monitoring previously to determine the need for adjustment.]

WL 3.1: Manage 359,650 acres of mule deer winter and early spring range in the BPU . . . so there is adequate food, cover, and water for 2,255 animals by 1990. Specifically:

- Implement livestock grazing systems and practices that recognize the physiological requirements of shrubs....
- Allow livestock to consume no more than 30% of the current annual production of key shrub species....

WL 3.2: Manage 1,106,000 acres of mule deer spring, summer, and fall range ...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.

### ***Evaluation and Information Sources:***

In this Evaluation, component species of plant communities are referred to in four categories; decreaser, increaser, invader, and introduced plant species. Decreaser species are those native plant species that decrease in amount as a result of a specific abiotic/biotic influence or management practice. Increaser species are those native plant species that increase in amount as a result of a specific abiotic/biotic influence or management practice. Invader species are those non-native plant species that were absent in undisturbed portions of the original vegetation of a specific range site and will invade or increase following disturbance. Introduced species were deliberately planted to improve structure or function of existing plant communities. The original range condition ratings were based upon the relative composition of these categories, particularly the composition of decreaser (deep-rooted) perennial grasses as estimated by the 1979-1980 rangeland inventory.

***Rangeland Health:*** Rangeland Health Evaluations were completed in all portions of the Sierra Del Rio Use Area during June through September, 2004. Dry over-winter conditions continued through April, 2004, with above-normal precipitation during May and June, 2004. In 2005 and 2006, available biomass differed greatly from 2004, when the RHE and trend data were collected, based upon repeated photos. 2004 was at the end of an extended period of below-normal precipitation, while 2005 and 2006 had favorable precipitation during the spring and summer months.

### **Pasture 7N (summer use)**

In 2000, livestock distribution in this pasture was generally associated with areas near reservoirs, springs, and access routes to perennial creeks. Utilization (2005) was nil in most of the areas of Pasture 7N that were not mapped in 2000. Small areas of heavy use occurred on meadows along Camel Creek. An area of moderate use occurred on low sagebrush and big sagebrush communities centered on the Sunshine Valley base property. Utilization around Avery Reservoir and in other preferred portions of the main key area was light; and

utilization was also light along upper Camel Creek and along the boundary fence with Nahas FFR Allotment. Overall utilization in Pasture 7N was 6% in 2005.

Standard 4 is being met in this pasture, with most RHE sites having desirable bunchgrass species present. Based on the 2004 RHEs, sites in the north end of Pasture 7N (mostly on tables and structural benches) including the Avery Table and Slack Mountain areas, showed little departure for the indicators from reference conditions. Some areas on the Stony Clayey 12-16 and Loamy 13-16 ecological sites were close to reference conditions and were used as comparison sites during the assessment period. However, the northern portion of the Use Area has western juniper and invasive species encroachment occurring at various locations.

Approximately 15 percent of the pasture in the area spanning from the Lower Avery Place to Spencer Butte (in the southern portion of this pasture) shows a slightly higher departure from reference conditions. Indicators in that area, which is dominated by Shallow Claypan ecological sites, are primarily associated with low shrub vigor and high shrub decadence, and a slight reduction in the expected amount of decreaser grasses. Decreaser grasses, however, are still dominant. A Loamy RHE site is located near permanent water at the Lower Avery Place and appears to receive more livestock and wildlife use due to its proximity to the reservoir. There is a lower than expected occurrence of decreaser grasses, and increaser grasses and invasive species dominate the understory.

#### **Pasture 7 (late spring/early summer use)**

Livestock distribution in this pasture is generally associated with areas near reservoirs, springs, and access routes to perennial creeks. Utilization is locally heavy in these areas; however, they represent a small portion of the pasture. Areas where RHEs were completed in 2004 had recently been grazed. The Loamy and Churning Clay RHEs were located in areas of more moderate to heavy use with some of the Shallow-Claypan sites having only slight use. On the RHE forms, many bunchgrasses were grazed down to the basal area and plucking of perennial grasses was observed at the Shallow Claypan site and hoof shearing was also observed at the Churning Clay site located in Indian Lake, a drainage collection area. However, based on use pattern mapping, overall utilization was only 6 to 13% in this pasture during 2000 to 2006.

Standard 4 is being met in this pasture. Departure from reference conditions occurs in less than 10 percent of this pasture. Overall, this pasture showed a slight to moderate departure from reference conditions for the Shallow Claypan and Loamy RHEs. There was a slightly greater than expected amount of increaser grasses in shrub interspaces; but decreaser grasses were still dominant or common at these locations. The Little Point area is characterized primarily by Churning Clay ecological sites, with Stony Clayey ecological sites surrounding the edges of the table. The Churning Clay and Stony Clayey areas showed little departure for these indicators with all structural and functional groups present and in appropriate ranges. Idaho fescue is dominant and highly vigorous. Although no assessments were actually conducted in the associated Stony Clayey ecological sites, they appear to be near reference condition according to notes compiled from other RHE forms.

Indicators of plant vigor showed a moderate degree of departure from reference conditions. Reduced seedhead production and decreased vigor of grasses was observed at the RHEs, but primarily reflected heavy utilization that occurred in 2004. While utilization of bluebunch wheatgrass appeared heavy in 2004, bluebunch is common throughout the Loamy RHE.

#### **Pasture 7S (mid-spring use)**

Use pattern mapping conducted in 2000 showed that heavy use occurred on a small portion of this pasture in localized preferred areas near available water. Heavy use occurred along some drainages and in fine-soiled areas near water (where RHEs in the northern half of the pasture were conducted in 2004). In the southern portion of this pasture, where RHEs were completed, livestock use is minimal based on use pattern mapping, with the exception of the Loamy RHE site. In 2005 and 2006, overall utilization in Pasture 7S was 11%, and utilization was moderate or less on most of the preferred areas. Overall, utilization in Pasture 7S was 11 to 17% during 2000 to 2006.

Standard 4 is being met in this pasture overall, particularly in areas where livestock use is limited by access, slope, stoniness, or distance from water. The southern portion of the Big Point area is characterized by Shallow Claypan areas with a soil surface armored with rhyolite rock and very little bare ground. RHE sites in this area indicated near potential conditions, with all structural and functional groups present and in appropriate ranges and high vigor on all grasses. One trend site was located in the southern portion of this pasture on a fine-soiled Shallow Claypan ecological site. At this site, trend is upward. There are no trend or photo sites on Loamy ecological sites. No trend data were collected in the northern portion of the pasture.

Indicators from approximately 10 percent of the pasture show a greater degree of departure; representing fine-soiled Shallow Claypan ecological sites in the northern portion of the pasture and the Loamy RHE site in the southern portion. Decreaser grasses are below potential with a reduction in number and vigor of interspatial perennial bunchgrasses. According to notes accompanying the Loamy RHE, it was representative of the majority of the Loamy sites in this pasture. At the Stony Clayey RHE site, it was noted that the slight to moderate departure from reference conditions was mainly historic and present use was slight with grasses appearing vigorous.

***Rangeland Health Changes:*** The trend studies in the Sierra Del Rio Use Area were read five times, with several changes in grazing practices and periods of drought occurring between 1983 and 2004. The studies were not read during the driest years during that period; therefore, the exact timing of changes in nested plot frequency cannot be determined. Mortality and recruitment often occur over several years, and trends may not become evident immediately.

#### **Pasture 7N (summer use)**

Trend in this pasture was static to static to downward. At a Stony Clayey site on Avery Table, trend was static to downward. Frequencies of squirreltail and phlox decreased, frequency of onspike oatgrass increased, and frequencies of Sandberg bluegrass, Idaho fescue, needlegrass, and low sagebrush were static. However, Idaho fescue, needlegrass, and low sagebrush frequencies were too low for a valid statistical test.

One trend site was also located in the Spencer Butte area, in the southern portion of this pasture. At this Shallow Claypan site trend was static. Frequencies of squirreltail and low sagebrush decreased, frequency of onspike oatgrass increased, and frequencies of Sandberg bluegrass, Idaho fescue, bluebunch wheatgrass, and phlox were static. While Idaho fescue and bluebunch wheatgrass were measured, their frequencies were too low for a valid statistical test.

#### **Pasture 7 (late spring/early summer use)**

No trend sites were located in this pasture.

#### **Pasture 7S (mid-spring use)**

One trend site has been established in Pasture 7S and is located in the southern portion of this pasture. At this Shallow Claypan site overall trend was static to upward. Frequency of bluebunch wheatgrass was static; but the frequency of this species was too low for a valid statistical test. Frequency of Idaho fescue was upward. Frequencies of Sandberg bluegrass, low sagebrush, and phlox were downward, while frequency of squirreltail was static to downward.

**Information Sources:** Rangeland Health Evaluations from 2004, Trend and Photo Site data from 1987 to 2006, Soils and ESI data from 1981.

**Potential Causal Factors:**

**Areas where Standards Met**

Grazing in Pasture 7N occurs from late July to October. Turnout is often delayed until near seed ripe. Consequently, grazing would rarely occur during the critical growth period for perennial grass species, even on cool exposures. Stocking rates for this pasture ranged from 11.4 to 14.4 acres per AUM for years when data are available, and overall utilization was 6% in 2005, when most of the pasture was mapped.

Water on the uplands in Pasture 7 is usually only available during the two months or so after turnout; consequently, use in Pasture 7 usually occurs from sometime in June through late July after the critical growth period for all perennial grass species. Reported stocking rates have been 9.8 to 14.9 acres/AUM.

Water in Pasture 7S is usually only available during the first month and a half after turnout, and dries up later except for a few accessible portions of Deep Creek. Consequently, use in Pasture 7S usually occurs from May 1 and extends into June, which is during the critical growth period for perennial grasses each year. The availability of water in the uplands influences the length of the use period, which was shortened if water sources dried early. The availability of water also influences the level of use. Reported stocking rates have been 21 to 25.1 acres/AUM.

**Evaluation Finding – Allotment is:**

- Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

**Rationale:**

Standard 4 is being met in this Use Area overall. Areas where a slight to moderate degree of departure from reference conditions was observed were located in isolated areas of high use at the time of Rangeland Health Evaluation. Much of the departure observed in plant community integrity and native species diversity indicators has to do with past grazing practices in Pasture 7S. Based on use pattern mapping conducted in 2000, 2005, and 2006, utilization in this Use Area overall was minimal, with livestock distribution generally associated with areas near reservoirs, springs, and access routes to perennial creeks.

**Standard 5 (Seedings) ■ Standard doesn't apply**

**Standard 6 (Exotic Plant Communities, other than Seedings) ■ Standard doesn't apply**

**Standard 7 (Water Quality)** Standard doesn't apply

Surface and ground water on public lands comply with the Idaho Water Quality Standards. Indicators may include, but are not limited to, the following:

- Physical, chemical, and biologic parameters described in the Idaho Water Quality Standards.

Desired Conditions: All waters shall fully support beneficial uses as described in Idaho Administrative Procedures Act 58.01.02 (Water Quality Standards and Wastewater Treatment Requirements). This evaluation of whether the streams support beneficial uses (i.e., cold water aquatic life (CWAL), salmonid spawning (SS), primary contact recreation (PCR), and secondary contact recreation (SCR)) is largely based on assessments conducted by the Idaho Department of Environmental Quality of the upper Owyhee River sub basin; including streams in the Big Springs allotment. Streams in proper functioning condition and meeting State of Idaho water temperature criteria for cold water biota and sediment load targets were evaluated as providing suitable habitat for salmonid, including spawning. BLM monitoring for coliform bacteria was used to evaluate the PCR (ingestion of fecal coliform bacteria) and SCR (external contact with coliform bacteria) beneficial uses. In addition to the beneficial uses listed, all waters are assumed to support agriculture, industrial water supply, wildlife habitats and aesthetics.

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: Improve fisheries physical habitat to fair and good condition by 1989 in 144 stream miles that are in poor or fair condition. . . . Special priority should be given to improve habitat of redband trout (a sensitive species).

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: . . . Improve water quality in 18 stream sites to chemical constituent levels that are within proper tolerance levels for trout.

***Evaluation and Information Sources:***

***Rangeland Health:*** Deep Creek is transporting and providing detention storage of large amounts of sediment, mostly which are derived from sources upstream of Big Springs Allotment. This sediment affects water quality in each pasture.

**Pastures 7N and 7NC (summer use):** Deep Creek is not supporting CWAL or SS beneficial uses. Camel Creek is not supporting CWAL beneficial uses, with no data during the salmonid spawning period. Pole Creek is not supporting CWAL or SS beneficial uses. No data are available to determine if any of the streams are meeting primary or secondary contact recreation criteria.

**Pasture 7 (late spring/early summer use):** Pole and Deep Creeks are not supporting CWAL or SS beneficial uses. Camel Creek is not supporting CWAL beneficial uses, with no data during the salmonid spawning period. Nickel Creek has not been monitored for SS or CWAL use support, but is not meeting standards 2 and 3 (which are directly and indirectly related to standard 7). No data are available to determine if any of the streams are meeting primary or secondary contact recreation criteria.

**Pasture 7S (mid-spring use):** Deep Creek is not supporting cold water aquatic life (CWAL) or salmonid spawning (SS) beneficial uses, but is meeting secondary contact recreation criteria.

Dickshooter Creek has not been monitored for SS, CWAL, or primary or secondary contact recreation use support.

***Rangeland Health Changes:*** Stream shade and percent fines were used to evaluate compliance with shade and sediment targets established by IDEQ. Deep Creek carries a high sediment load (coupled with a confined streambed morphology) which may be limiting the establishment and propagation of riparian shrubs and forbs because the deposits get reworked before vegetation becomes firmly established. This offsite sediment load affects trends in water quality in all pastures. Shade targets represent the amount of shade needed to comply with water temperature standards and may be refined, based on additional data or site potential.

**Pastures 7N and 7NC 7N (summer use):** Camel Creek is functional-at risk and the Upper Owyhee TMDL set SS and CWAL shade targets of nearly 100% for Camel Creek. Shade measurements were taken at only one site in this Use Area (on Camel Creek in 1999), but the target was not met. The upper 3 miles of Deep Creek are functional-at risk, while the lower 4 miles are properly functioning. The Upper Owyhee TMDL set a June SS shade target of 100% and a July CWAL shade target of 52% for Deep Creek. Pole Creek is functional-at risk and the Upper Owyhee TMDL set SS and CWAL shade targets of nearly 100% for upper Pole Creek.

**Pasture 7 (late spring/early summer):** Approximately 2/3 of Deep Creek is properly functioning and 1/3 is functional-at risk with a static trend. The Upper Owyhee TMDL set shade targets of 100% for salmonid spawning and 57% for cold water aquatic life and a 27% target for streambed fine sediment on Deep Creek. Most of Pole Creek is in a box canyon and is properly functioning, while the upper reaches are functional-at risk. The Upper Owyhee TMDL set SS and CWAL shade targets of nearly 100% for Pole Creek. Camel Creek is functional-at risk and the TMDL set SS and CWAL shade targets of nearly 100%. Nickel Creek is rated functional-at risk with a static trend.

**Pasture 7S (mid-spring use):** Deep Creek is properly functioning along 19 miles and functional-at risk along a 1.6 mile reach downstream of Castle Creek. The Upper Owyhee TMDL set a June salmonid spawning period shade target of 100% and a July shade target of 66% for CWAL support for Deep Creek. Dickshooter Creek is properly functioning. The Upper Owyhee TMDL set SS and CWAL shade targets of 94% for SS (June) and 65% for CWAL (July).

***Information Sources:*** BLM riparian PFC surveys; BLM water quality monitoring 1976, 77, 90, 1998- 2000; IDEQ Upper Owyhee TMDL (2003), IDEQ BURP data (1993-2002). It is not possible for BLM to monitor water quality along every stream reach in every pasture every year. Where site specific data are not available, BLM uses riparian survey data (e.g. shade, bank stability, channel dimensions, condition and type of riparian vegetation) to indirectly assess water quality parameters.

### ***Potential Causal Factors:***

#### **Areas where Standards Not Being Met**

Deep Creek carries a high sediment load (coupled with a confined streambed morphology) which may be limiting the establishment and propagation of riparian shrubs and forbs because the deposits get reworked before vegetation becomes firmly established.

Deep Creek is accessible by livestock along the upper reaches (~ 3 miles) while the lower reaches are largely inaccessible to livestock in Pasture 7N. The establishment and expansion of late seral riparian vegetation needed to shade the stream and stabilize stream banks along

Pole Creek is not being realized in Pasture 7N. Where access to Pole and Deep Creeks in Pasture 7 occurs, abundance, vigor and age structure of willows, which help to shade the channel from direct solar radiation, are less than expected for the site.

Early spring trailing is causing impacts localized along the middle reaches of Camel Creek. Summer to fall use impacts riparian communities along the lower reaches of Camel Creek in Pastures 7N and 7NC although streamflow may be lacking at those times. Camel Creek within Pasture 7 is fenced into a bottleneck, which is concentrating livestock use.

Spring grazing in Pasture 7S is conducive to improvements in riparian and stream channel health in Deep Creek, both of which are related to improving water quality. Dickshooter Creek is largely inaccessible to livestock.

***Evaluation Finding – Allotment is:***

- \_\_\_\_\_ Meeting the Standard
- \_\_\_\_\_ Not meeting the Standard, but making significant progress towards meeting it.
- X   Not meeting the Standard

***Rationale:***

None of the streams monitored are meeting Standard 7, while about 2/3 of stream channels within this Use Area are meeting standards 2 and 3 (which are strongly related to Standard 7). The channels meeting standards 2 and 3 are located in rugged canyons. A high percentage of streams are not meeting the standard due to inadequate stream shading (which helps to block the direct rays of the sun from heating the water column), bank stability within and upstream of the allotment (unstable banks are sources of fine sediment, which adversely impacts fish habitat) and channel dimensions (over widened and shallow channels tend to absorb more solar radiation than narrow, deeper channels).

**Standard 8 (Threatened/Endangered Plants and Animals)     Standard doesn't apply**

Habitats are suitable to maintain viable populations of threatened and endangered, sensitive, and other special status species. Indicators may include, but are not limited to, the following:

- Parameters described in the Idaho Water Quality Standards
- Riparian/wetland vegetation with deep, strong, binding roots is sufficient to stabilize streambanks and shorelines. Invader and shallow-rooted species are a minor component of the floodplain.
- Age class and structural diversity of riparian/wetland vegetation are appropriate for the site.
- Native plant communities (flora and micro biotic crusts) are maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant species.
- The diversity of native species is maintained.

- The amount and distribution of ground cover, including litter, for identified ecological site(s) or soil-plant associations are appropriate for site stability.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives:**

RM 5: Provide for protection and conservation of rare and endangered plants....

WL 2: Manage sensitive species habitats...to maintain or increase existing and potential populations.

The WL-AQ 2 Objectives and Decisions listed under Standard 2 are also relevant for Special Status Fish under Standard 8.

**Related Management Framework Plan (MFP) Decisions:**

RM 1.1 (1): Implement intensive management (AMPs) on 14 allotments [including Big Springs]. Specifically:

- Livestock rest or deferment systems would be established on critical sage grouse brood rearing areas.

WL 2.1: Manage 93,500 acres of bighorn habitat to provide adequate food, cover, water, and space for 420 bighorns by 1990...including 220 for the Owyhee River area:

WL 4.4: Manage 520,000 acres of sage grouse range...to improve nesting, brood rearing and winter habitats. Specifically:

- ...all poor and fair big sagebrush, meadow and riparian ecological sites should be improved and managed for good ecological condition....

***Special Status Fish (Redband Trout)***

***Evaluation and Information Sources:***

***Rangeland Health:*** Channels that are widened and shallow relative to the landscape setting provide less living space for trout. Additionally, stream temperatures are elevated because shade-providing vegetation is lacking in some areas and wide, shallow channels receive greater solar heating.

**Summer Use (Pasture 7N)**

Of 7.1 miles of Deep Creek inhabited by redband trout in Pasture 7N, 4 miles are functioning at risk, and not providing suitable habitat for the maintenance of viable trout populations, and thus are not meeting the standard. Riparian plant communities on these segments of Deep Creek are lacking in cover and density of bank-stabilizing species (willows and sedges). As a result, streambanks and channels are inadequately vegetated to withstand the erosive forces of high stream flows. Wide, shallow stream channels and lack of streamside vegetation result in increased solar heating of Deep Creek such that temperatures exceed State criteria for cold water aquatic life. Segment 29 of Deep Creek (one mile) is also not meeting the standard because elevated sediment levels from upstream of this Allotment restrict recruitment and growth of riparian vegetation and negatively impact trout spawning and rearing habitat.

Three miles of Deep Creek that are meeting the standard are located in canyons or have large amounts of rock in the floodplain that helps stabilize channels and floodplains.

### **Late Spring/Early Summer (Pasture 7)**

About 5.4 miles of Deep Creek are providing suitable habitat for the maintenance of redband trout populations. This section is located in a rugged, rocky canyon with rocky floodplains that contribute towards channel and bank stability.

Another 9.7 miles of Deep, Pole, and Nickel creeks are not providing suitable habitat for redband trout and are not meeting the standard. In these stream segments, the cover, density, and composition of streamside vegetation are substantially less than that expected from the landscape setting. As a result, channels are widened and shallow relative to the landscape setting, provide less living space for trout and result in increased solar heating of streams such that temperatures exceeded State criteria for cold water aquatic life in Deep and Pole creeks. Approximately 2 miles of Deep Creek are not meeting the standard primarily because of elevated sediment delivered from upstream of the Big Springs Allotment.

### **Mid-Spring Use (Pasture 7S)**

Standard 8 is being met on 8.1 miles of Deep and Pole creeks in Pasture 7S. Another 1.6 miles of Deep Creek is in Functioning at Risk condition, with a slow upward trend in riparian health, and is making significant progress towards the standard.

### ***Rangeland Health Changes:***

#### **Summer Use (Pasture 7N)**

Establishment and expansion of late-seral riparian vegetation needed to stabilize banks and channels are not occurring on three miles of Deep Creek adjacent to Mud Flat road in the northern portion of the pasture. Elevated sediment levels from upstream sources restrict recruitment and growth of riparian vegetation on Segment 29 of Deep Creek.

#### **Mid-Spring Use (Pasture 7S)**

Accessible portions of Deep Creek have an upward trend in riparian and aquatic health based on a slow upward trend in shrub recruitment and growth (primarily willows) on Deep Creek in the middle portion of Pasture 7S.

***Information Sources:*** Stream Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian and aquatic habitat inventories and trout population monitoring conducted during 1995, 1998-2001, and 2004-2005.

### ***Potential Causal Factors:***

#### **Areas where Standards Met**

Most stream segments in Pasture 7S are located in rocky, rugged canyons that limit livestock access and use of riparian vegetation.

Efforts by the livestock operator ensure that no livestock are left on Deep Creek in Pasture 7S past the mid-spring grazing use period. Spring grazing is conducive to improvements in riparian health.

#### **Areas where Standards Not Being Met**

Grazing use is during the hot season when livestock tend to favor riparian areas for water and shade. Streambanks and channels are inadequately vegetated to withstand the erosive forces

of high stream flows, and thus channels are wide and shallow relative to the landscape setting.

***Evaluation Finding – Allotment is:***

\_\_\_\_\_ Meeting the Standard

\_\_\_\_\_ Not meeting the Standard, but making significant progress towards meeting it.

  X   Not meeting the Standard

***Rationale:***

About one-half of streams within this Use Area (13.5 of 26.7 miles) are meeting the standard for redband trout, but these segments are primarily located in rugged canyons. Of the remaining 11.2 miles of stream channel, 9.6 miles are functioning at risk with a static trend in condition and are not providing suitable habitat for redband trout and is not meeting the habitat standard for redband trout.

***Special Status Animals***

***Evaluation and Information Sources:***

***Rangeland Health:*** Much of the Sierra Del Rio Use Area meets the standard for wildlife, however, several important riparian areas and parts of Pasture 7S do not meet the standard. In general, low sagebrush habitats are in good condition with plentiful forbs and grass. In Pasture 7N, Slack Mountain and Avery Table area are in good condition, other than the increasing juniper on Slack Mountain. Spencer Butte area is in moderate habitat condition, with reduced tall bunchgrasses. Pasture 7 is in generally good to moderate habitat condition. In Pasture 7S, habitat condition is the poorest. The tall bunchgrasses are reduced, and Sandberg’s bluegrass is the major component, which provides less cover and forage for wildlife.

Three miles of Deep Creek below the Mud Flat Road are rated Functioning At Risk. Five spring and wet meadow areas in 7N showed marginal brood-rearing conditions.

***Rangeland Health Changes:*** Trend on Deep Creek below the Mud Flat Road appears static. Upland trend in Pasture 7S was static to upward on a low sage site, but big sage sites may not be improving.

***Information Sources:***

- Stream and spring functioning condition assessments for Standard 2
- Upland Health assessments and trend studies for Standard 4
- Sage grouse lek (mating ground) surveys by helicopter, 2004-2010
- IDFG sage grouse historical lek database, 2003
- IDFG telemetry studies of sage grouse 2003-2005 (pers. comm.)
- Conservation Data Center Rare Species database
- General wildlife field observations in 2004 and 2005

***Potential Causal Factors:***

**Areas where Standards Not Being Met**

Use in the spring every year can lower vigor and size of desired plant species by reducing root growth.

Livestock tend to congregate in riparian areas during the hot season.

***Evaluation Finding – Allotment is:***

- Meeting the Standard (in Pastures 7N and 7)
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard (in Pasture 7S)

***Rationale:***

Although much of the Use Area is providing good wildlife habitat, the three miles of Deep Creek that are in Functioning at Risk condition with a static trend are too important not to fix. The shrubs are much reduced from their potential, but the reach has the potential to provide excellent riparian shrub habitat for songbirds. This is a major stream, and a major patch of habitat for riparian songbirds.

***Special Status Plants***

***Evaluation and Information Sources:***

***Rangeland Health:*** Standard 8 was met for this Use Area. There is one BLM SSP known to occur in the Del Rio Use Area. Owyhee River forget-me-not (*Hackelia ophiobia*), which is currently listed as a Type 3 BLM Sensitive species, is located in Pasture 7S. Simpson's hedgehog cactus (*Pediocactus simpsonii*), a Watch list species, is also located in this pasture. Type 5 plants are not BLM Sensitive species, but are on the BLM Watch List, indicating that they may be of conservation concern if populations decline or new threats emerge. Special status plants are not presently known to occur on BLM land in Pastures 7 or 7N.

***Rangeland Health Changes:*** Owyhee River forget-me-not has a very restricted habitat (well-shaded talus, in cracks and crevices of rocky basaltic bluffs and cliffs, and steep banks of canyons). Because the deep canyons where this species grows are both remote and inaccessible this species was not revisited; however, based on the remoteness and precipitous nature of its location, impacts to Owyhee River forget-me-not are not a concern.

Simpson's hedgehog cactus occurs on rocky or sandy benches and canyon rims. The two populations of this cactus were new populations located during the 2005 field season. Both populations were located in very rocky areas and showed excellent vigor.

***Information Sources:*** Species specific site-visits to known populations of special status plants and historic population information on file at the BLM. Locations of known populations of SSP were identified using the Idaho Fish & Game Conservation Data Center (CDC) database and BLM field office maps. Data for species listed on the 2004 BLM sensitive species list were collected. Only known populations of BLM SSP occurring in the Big Springs Allotment were analyzed. Inventories for SSP in this Use Area have primarily resulted from incidental observations from other work in the area, though this type of work has been limited. However, most known populations in this allotment were revisited during the spring and summer of 2004 and 2005.

**Potential Causal Factors:****Areas where Standards Met**

There is no threat to Owyhee River forget-me-not since the deep canyons where it grows are both remote and inaccessible. No negative impacts to the Simpson's hedgehog cactus populations were observed in 2005.

**Evaluation Finding – Allotment is:**

Meeting the Standard

Not meeting the Standard, but making significant progress towards meeting it.

Not meeting the Standard

**Rationale:**

The special status plants located in this Use Area are both healthy and vigorous. Because of the remote location of these species and lack of threats, no additional surveys were conducted in 2009.

**SECTION 1 – IS A DETERMINATION REQUIRED?**

All Standards are met or making significant progress towards meeting and there is conformance with the guidelines. **No Determination is required, review is complete.**

One or more Standards is not being met or there is non-conformance with the guidelines. **An Authorized Officer's Determination of causal factors is required.**

**Specifically:**

*Standard 1-* Accelerated erosional processes (pedestalled plants, physical soil crusts) are still slightly active in preferred areas in Pasture 7S, with excessive amounts of bare ground.

*Standard 2-* A substantial amount of riparian habitat is not meeting the standard in pastures 7N, 7NC, and 7. These segments have inadequate establishment and expansion of late-seral riparian vegetation that is needed to fully stabilize banks and channels and/or have active headcuts. Additionally, 9 of 15 wetlands assessed for functioning condition currently have low vigor and density of wetland vegetation or mechanical disturbance to wetland soils and three wetlands are not meeting the standard in part because livestock water developments have reduced their respective areas.

*Standard 3-* A substantial amount of stream channel is not meeting the standard and is not showing progress toward the standard in Pastures 7N, 7NC, and 7.

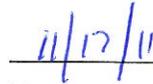
*Standard 7-* None of the streams monitored are meeting Standard 7. A high percentage of streams are not meeting the standard due to inadequate stream shading (which helps to block the direct rays of the sun from heating the water column), bank stability within and upstream of the allotment (unstable banks are sources of fine sediment, which adversely impacts fish habitat) and channel dimensions (over widened and shallow channels tend to absorb more solar radiation than narrow, deeper channels).

*Standard 8: Special Status Fish (Redband Trout)*- A substantial amount of stream is functioning at risk with a static trend in condition, is not providing suitable habitat for redband trout, and is not meeting the habitat standard for redband trout.

*Special Status Animals*- In Pasture 7S, upland habitat condition is the poorest. The tall bunchgrasses are reduced, and Sandberg's bluegrass is the major component, which provides less cover and forage for wildlife than other pastures. The three miles of Deep Creek that are in functioning at risk condition with a static trend are also too important not to fix. The shrubs are much reduced from their potential, but the reach has the potential to provide excellent riparian shrub habitat for songbirds.



\_\_\_\_\_  
Authorized Officer



\_\_\_\_\_  
Date

## EVALUATION REPORT

Achieving the Idaho Standards for Rangeland Health

Field Office: ID 120 Evaluation Date(s): October 17, 2011  
 Grazing Allotment Name/Number: Big Springs 0803- Joseph Black & Sons (JB&S) Use Area  
 Name of Permittee(s): Joseph Black & Sons (GRN#s 1100235 & 1100236)

### STANDARDS APPLICABLE

Standards 1, 2, 3, 4, 7 and 8 are applicable to the Joseph Black & Sons Use Area of the Big Springs Allotment.

An Evaluation is conducted to arrive at two outcomes (H-4180-1 page I-3):

- Firstly, an Evaluation conducts an analysis and interpretation of the findings resulting from the Assessment, relative to land health Standards, to evaluate the degree of achievement of land health Standards.
- Secondly, an Evaluation conducts an analysis and interpretation of information – be it observations or data from inventories and monitoring – on the [potential] causal factors for not achieving a land health Standard. An Evaluation of the suspected causal factors provides the foundation for a Determination.

BLM is further directed to evaluate all the data for each subdivided unit (i.e. allotment, watershed) to identify cause-effect relationships and draw conclusions about whether or not each Standard is being met for the Evaluation area as a whole (H-4180-1 page III-10).

### EVALUATE STANDARDS

#### Standard 1 (Watersheds)

Standard doesn't apply

Watersheds provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- The amount and distribution of ground cover, including litter, for identified ecological site(s) or soil-plant associations are appropriate for site stability.
- Evidence of accelerated erosion in the form of rills and/or gullies, erosional pedestals, flow patterns, physical soil crusts/surface sealing, and compaction layers below the soil surface is minimal for soil type and landform.

#### Related Management Framework Plan (MFP) Objectives:

WS 1: Maintain stability of 408,300 acres of moderate . . . erosion hazard classes by reducing or minimizing wind and water erosion.

#### Related Management Framework Plan (MFP) Decisions:

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.

### ***Evaluation and Information Sources:***

***Rangeland Health:*** Rangeland Health Evaluation Summary worksheets were completed in all portions of the Black Use Area during June, July, and September, 2004. Dry over-winter conditions continued through April, 2004, with above-normal precipitation during May and June, 2004.

### **Paddocks/Pastures where Standards Met**

The majority of the Black Use Area (over 90 percent) is meeting this standard. This standard is generally being met in the all paddocks of the Black Use Area. The Clayey and Churning Clay ecological sites are in the best condition, with the plant community functioning adequately under this standard.

### **Areas where Standards Not Being Fully Met**

There are isolated areas where this standard is not being fully met (at least two key indicators have a moderate or greater departure from reference conditions) but they account for less than 10 percent of the Use Area. Some historic erosional features (water flow patterns and pedestalled interspatial plants) persist in some areas. Localized areas in the vicinity of water sources (usually within ½ mile or less) and where livestock are trailed repeatedly (in fine-soiled bottom areas associated with the Churning Clay and Loamy ecological sites) show greater deviation from this standard.

***Rangeland Health Changes:*** The trend studies in the Black Use Area were read five times, with several changes in grazing practices and periods of drought occurring between 1983 and 2004. The studies were not read during the driest years during that period, and cover of biological soil crust and grass species were not recorded separately in some years; therefore, the exact timing of changes in basal cover categories cannot be determined. Mortality, recruitment, and litter accumulation often occur over several years, and trends may not become evident immediately. Photo plot data provided by the permittee showed a general upward trend in vegetative condition as it relates to watershed function.

### **Paddocks/Pastures where Standards Met**

In the A and B paddocks, persistent litter, live vegetation basal cover, and basal cover of increaser and decreaser grasses were static at both trend sites.

Trend site 13S2W02 is predominantly increaser grasses with high gravel surface cover, shallower soils. This site also receives more livestock use than 13S02W16. A generally static trend in non-persistent litter occurred at trend site 13S2W02. Bare ground was greater in 2000 than in other years during 1983 and 2004, and biological soil crusts increased.

Trend site 13S02W16 has slightly deeper soils, less surface gravel, higher increaser and decreaser grass basal cover. The trend data indicated a fluctuating but generally static trend in bare ground and in biological soil crust. Non-persistent litter cover declined sharply but recovered to its original level, reflecting the influence of climatic fluctuations on litter accumulation.

In the C paddocks on tables and benches, bare ground, biological soil crusts, and basal cover of increaser grasses were static; live vegetation basal cover and persistent litter were static but fluctuated slightly; and non-persistent litter cover declined sharply but recovered to its original level, reflecting the influence of climatic fluctuations on litter accumulation between 1983 and 2004. Decreaser grasses are minor on both the low sagebrush (11S02W25) and stony alkali sagebrush (11S02W15) trend sites; the stony alkali sagebrush trend site has a higher basal cover of increaser grasses.

In the D paddocks on tables and benches (trend site 10S01W21), non-persistent and persistent litter and basal cover of decreaser grasses was static, increaser grass basal cover increased, and live vegetation basal cover fluctuated slightly, reflecting dieback and recovery from climatic fluctuation during 1983 to 2004. Tables and benches in the D paddocks are extremely stony, and climatic fluctuation has no clear influence upon the amount of bare ground cover.

In the D paddocks in stony and non-stony drainages, persistent litter and basal cover of increaser and decreaser grasses was static; live vegetation basal cover fluctuated and bare ground fluctuated in non-stony but not in stony drainages, reflecting dieback and recovery from climatic fluctuation during 1983 to 2004.

In Wagon Box Basin (Pasture 4D3), the trend data (trend site 10S2W34B) indicated a generally static trend in persistent litter, biological soil crusts and in basal cover of decreaser and increaser grasses between 1983 and 2004. Lower live vegetation cover values for 1995 and higher values for 2000 may reflect plant dieback and expansion during the period of lower precipitation between 1987 and 1994 and the period of higher precipitation between 1995 and 1998. The relatively high cover of rock and gravel reduced the influence of litter accumulation on bare ground cover measurements. Bare ground cover showed some fluctuation, but without any clear influence by climatic fluctuation. Non-persistent litter cover was also static overall at this site.

**Information Sources:** Rangeland Health Evaluation Summary Worksheets from 2004, Trend and Photo Site data from 1976 to 2004, Soils and ESI data from 1981 to 1983, permittee photo point data, personal site visits from 1981 to 2004.

### ***Potential Causal Factors:***

#### **Areas where Standards Met**

The season of use for each paddock or group of paddocks in the Black Use Area is not restricted under the current grazing permit and has been planned and adjusted annually under the existing HRM management since 1993. In Paddocks 4A1 to 4A6 and 4B1 to 4B5, grazing occurs in some paddocks during the critical growth period for perennial grasses each year, but not in consecutive years. The duration of grazing is short, allowing for regrowth, dependent on the amount of available moisture.

In the lower portions of paddocks 4C2 and 4C3, and in most of paddock 4C4, grazing usually occurs after the critical growth period for perennial grasses. In the upper portions of paddocks 4C2 and 4C3 and in the D paddocks, grazing occurs in some years during the critical growth period for perennial grasses, particularly decreaser grasses. At times, use during the critical period may occur in successive years, but variation in the actual timing of the phenological events among years and in stocking rates may reduce impacts. Use during the critical growth period also alternates with use before or after the critical period over each several year period. The duration of grazing is short, allowing for regrowth after use,

dependent on the amount of available moisture. In the D paddocks, grazing occurs well after the critical growth period for Sandberg bluegrass and squirreltail each year.

In Pasture 4C1, grazing by horses occurs during most of the active growth period for perennial grasses, but at very light stocking rates (33 to 145 acres per AUM). In Pasture 4D3 (Wagon Box Basin), grazing use during the critical growth period of bluebunch wheatgrass and Idaho fescue may occur in successive years, but any overlap typically falls in the latter part and alternates with use after the critical period over each several year period. Substantial variations in stocking rates also occur among years. Grazing usually occurs after the critical growth period for Sandberg bluegrass and squirreltail each year.

The utilization pattern reflects paddocks that are planned for use, with greater utilization detectable in areas with higher stocking densities. Preferred areas are the same from year to year, but the amount of use is influenced by availability of water and the planned stocking level. In addition, Paddock 4A5 was rested in 1994, 2005 and 2006; and 4A6 was rested in 1993; Paddock 4B2 was rested in 1994; Paddock 4C4 was rested in 1998; and Paddocks 4D2 and 4D5 were rested in 1993 and in 2002; Paddocks 4D1 and 4D3 were rested in 1998; and 4D2 was rested in 1999 and 2001.

Stocking rates vary substantially in each paddock within the A and B paddocks from year to year, and maximum stocking rates are somewhat greater than in the C and D paddocks (3.6 acres/AUM), but generally these paddocks are also lightly stocked (10 to 18 acres/AUM) on an area wide basis in most paddocks in most years.

Stocking rates vary substantially in each paddock or pasture within the C and D paddocks from year to year, but generally are very lightly stocked (over 20 acres/AUM) on an area-wide basis; with maximum stocking rates of 9 to 11 acres/AUM in the C paddocks and 12 to 15 acres/AUM in the D paddocks. The Horse Pasture (4C1) has occasionally been stocked as much as 6.0 acres/AUM. The heaviest stocking rate for Wagon Box Basin has been 12.9 acres/AUM.

#### **Areas where Standards Not Being Fully Met**

In 2000, livestock distribution was generally associated with loamy soil sites near reservoirs or springs within paddocks 4D1 to 4D5. Livestock congregate in areas where fine, non-stony soils predominate. Currently this area is grazed primarily in late spring to early summer.

#### ***Evaluation Finding – Allotment is:***

- Meeting the Standard (In over 90 percent of the use area)
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

#### ***Rationale:***

The majority of the JB&S Use Area (over 90 percent) is meeting this standard and the watershed is functioning properly in terms of hydrologic function and soil stability. Areas where the standard is not fully being met make up less than 10 percent of the use area and are generally associated with the portions of the loamy and the churning clay ecological sites which livestock tend to favor.

**Standard 2 (Riparian Areas and Wetlands)**

☐ Standard doesn't apply

Riparian-wetland areas are in properly functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- The riparian/wetland vegetation is controlling erosion, stabilizing streambanks, shading water areas to reduce water temperature, stabilizing shorelines, filtering sediment, aiding in floodplain development, dissipating energy, delaying flood water, and increasing recharge of groundwater appropriate to site potential.
- Riparian/wetland vegetation with deep strong binding roots is sufficient to stabilize streambanks and shorelines. Invader and shallow rooted species are a minor component of the floodplain.
- Age class and structural diversity of riparian/wetland vegetation is appropriate for the site.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: Improve fisheries physical habitat to fair and good condition by 1989 in 144 stream miles that are in poor or fair condition. . . . Special priority should be given to improve habitat of redband trout (a sensitive species).

WL 4: Manage upland game and waterfowl habitats in the Bruneau Planning Unit (BPU) to increase populations of these highly desired species.

WL 6: Manage all meadows and riparian habitat . . . to obtain a maximum diversity of vegetative species in order to provide for a maximum diversity and optimum abundance of wildlife species.

**Related Management Framework Plan (MFP) Decisions:**

WL-AQ 2.2: Improve fisheries habitat from poor and fair to a good condition through intensive livestock management on riparian areas of 40 stream miles... [including 5.7 miles of Pole Creek within this Use Area]. Intensive livestock management should be applied with goals directed at insuring that riparian areas receive only light to moderate livestock use to attain good habitat condition....

WL-AQ 2.4: Improve fisheries habitat on 16 stream miles by increasing in-stream cover by at least 50% in...[an identified 2.0 mile segment of Camas Creek within this Use Area]. In-stream cover can be increased through the addition of juniper trees along cut banks, placement of large boulders and/or debris jams, and excavation to create pools....

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.

WL 6.1: ... riparian and meadow habitats will be managed to attain and/or maintain a good ecological condition class...or reasonable equivalent. Specifically:

- Employ livestock management systems/practices/improvements including exclusion of grazing where necessary.

### ***Evaluation and Information Sources:***

#### ***Rangeland Health:***

##### **Early Summer Use (Northern portion of Pasture 4; D and F Paddocks)**

This standard is being met on most of Camas and Pole creeks (8.6 miles of 13.9 stream miles). Portions of Camas and Pole Creeks that are meeting the standard are vegetated with plant communities dominated by willows and sedges. The upper-most 4.2 miles of Camas Creek is located in a low gradient, unconfined valley, where the stream is functioning at risk. The central portion of Camas Creek (1.1 miles in length) is functioning at risk and is not meeting the standard because of historical impacts that caused the stream to headcut and because active headcuts are still present.

Of 6 wetlands at springs, 4 are not meeting the standard. These spring wetlands are functioning at risk due to disturbance to wetlands soils. Two springs were not assessed for functioning condition, but of these springs one is located in a rugged canyon that restricts livestock access and is likely meeting the standard.

##### **Late Spring Use (Central portion of Pasture 4; C Paddocks)**

No streams supporting riparian areas are located in this portion of Pasture 4.

Of the 5 wetlands at springs, one is in proper functioning condition and is meeting the standard. Two are functioning at risk because of elevated levels of bare ground due to disturbance to wetland soils and are not meeting the standard. Two spring wetlands were not assessed for functioning condition.

##### **Early-Mid Spring Use (South-central portion of Pasture 4; B Paddocks)**

Standard 2 is being met on 2.5 miles of Deep Creek that are in proper functioning condition. Additionally, 2.5 miles of Dickshooter Creek upstream of Black Canyon is vegetated with plant communities dominated by Baltic rush (*J. balticus*), and is meeting the standard.

Of the four wetlands at springs, three are meeting the standard. Three springs have been developed by excavating a pond in the wetland or by piping water to a trough. One wetland is functioning at risk because a channel is actively down-cutting through the wetland because the earthen dam for the pond was improperly constructed.

##### **Early-Mid Spring Use (Southern portion of Pasture 4; A Paddocks)**

This standard is being met on 9.1 miles of Deep Creek, which is in proper functioning condition. Riparian areas of Deep Creek are generally vegetated with plant communities dominated by willows, although excessive levels of sediment are being delivered to this portion of Deep Creek from degraded reaches upstream of the Big Springs Allotment. Riparian areas on the Owyhee River are functioning at risk.

The 2 wetlands at springs are not meeting the standard. The wetland at Spencer Camp spring is non-functioning as the spring no longer has surface or sub-surface water. An unnamed spring is functioning at risk due to excessive disturbance to wetland soils. Channels are actively downcutting into the wetland.

***Rangeland Health Change:*****Early Summer Use (Northern portion of Pasture 4; Paddocks D and F)**

The uppermost segment of Camas Creek is functioning at risk with an upward trend in condition, with bank-stabilizing vegetation increasing in cover and vigor as it recovers from historical land uses (diversions and excessive livestock use). It is making significant progress towards meeting the standard.

**Late Spring Use (Central portion of Pasture 4; C Paddocks)**

No trend information is available.

**Early-Mid Spring Use (South-central portion of Pasture 4; B Paddocks)**

Trend monitoring shows segments of Dickshooter Creek vegetated with Baltic rush communities are maintaining high levels of bank cover, and willows are recruiting young-aged plants.

**Early-Mid Spring Use (Southern portion of Pasture 4; A Paddocks)**

Elevated levels of sediment from historical land use practices upstream of the Big Springs Allotment are causing stream scouring on the Owyhee River (14.1 miles of stream), but willow cover and diversity is increasing and health of riparian areas is improving, and as a result are making significant progress towards meeting the standard.

***Information Sources:*** Stream and spring Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian habitat inventories and monitoring conducted during 1995, 1998-2001, 2004-2005 and 2009.

***Potential Causal Factors:*****Areas where Standards Met**

Some riparian areas and spring wetlands are located in canyon segments that are inaccessible to livestock because of significant amounts of rock in the floodplain or rocky or sheer canyon slopes.

Livestock use levels of riparian vegetation along streams are conducive for bank stabilizing species (willows, sedges, and rushes) to remain dominant in riparian plant communities or to increase in cover on stream segments currently in functioning at risk condition.

Riparian areas are grazed for short duration and then allowed sufficient time for re-growth to maintain plant vigor and cover.

Short duration grazing and allowing sufficient time for regrowth is conducive for bank stabilizing species (willows, sedges, and rushes) to increase in cover and stabilize channels of streams currently in functioning at risk condition.

**Areas where Standards Not Being Fully Met**

Historical impacts caused the channel to incise and active headcuts are still present.

Some spring wetlands have low vigor of wetland vegetation and disturbance of wetlands soils (trampling and pugging).

A channel is actively down-cutting through one wetland because an earthen dam was improperly constructed.

A spring no longer has surface or sub-surface water but is not related to livestock use.

***Evaluation Finding – Allotment is:***

- X   Meeting the Standard (for most riparian and wetland areas in pasture 4)
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

***Rationale:***

Most riparian areas (22.6 miles of 41.3 stream miles) in this Use Area are meeting the standard, or are making significant progress towards the standard (17.6 miles) as they recover from impacts of historical land uses. Riparian areas are grazed for short duration and then allowed sufficient time for re-growth to maintain plant vigor and cover.

Wetland areas at springs comprise a small proportion of the total riparian and wetland habitat in this Use Area. Therefore, overall the standard is being met for riparian and wetland areas in pasture 4. However, 7 of 13 wetlands assessed for functioning condition have high levels of disturbance to wetland soils. Additionally, one wetland is functioning at risk because an improperly constructed reservoir is causing channel down-cutting and soil loss in the wetland.

**Standard 3 (Stream Channel/Flood Plain)**

Standard doesn't apply

Stream channels and floodplains are properly functioning relative to the geomorphology (e.g., gradient, size, shape, roughness, confinement, and sinuosity) and climate to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- Stream channels and floodplains dissipate energy of high water flows and transport sediment. Soils support appropriate riparian-wetland species, allowing water movement, sediment filtration, and water storage. Stream channels are not entrenching.
- Stream width/depth ratio, gradient, sinuosity, and pool, riffle and run frequency are appropriate for the valley bottom type, geology, hydrology, and soils.
- Streams have access to their floodplains and sediment deposition is evident.
- There is little evidence of excessive soil compaction on the floodplain due to human activities.
- Streambanks are within an appropriate range of stability according to site potential.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives and Decisions:**

The WL-AQ 2 Objectives and Decisions listed under Standard 2 are also relevant for Standard 3.

***Evaluation and Information Sources:******Rangeland Health:*****Early Summer Use (Northern portion of Pasture 4; D and F Paddocks)**

This standard is being met on most of Camas and Pole creeks (8.6 miles of 13.9 stream miles). Portions of Camas and Pole Creeks that are meeting the standard have both rock and riparian vegetation stabilizing the channels and floodplains. The upper-most 4.2 miles of Camas Creek is located in a low gradient, unconfined valley where the stream is functioning at risk, due to loss of stream sinuosity from historical land uses. The central portion of Camas Creek (1.1 miles in length) is functioning at risk and is not meeting the standard because of historical impacts that caused the stream to headcut and because active headcuts are still present.

**Early-Mid Spring Use (South-central portion of Pasture 4; B Paddocks)**

Standard 3 is being met on 2.5 miles of Deep Creek in the south-central portion of pasture 4 that has significant amounts of rock in its floodplain which helps maintain stable stream channels. Additionally, 2.5 miles of Dickshooter Creek upstream of Black Canyon have stable channels and floodplains vegetated with plant communities dominated by Baltic rush (*J. balticus*), with considerable amounts of rock in the floodplain, and is meeting the standard.

**Early-Mid Spring Use (Southern portion of Pasture 4; A Paddocks)**

This standard is being met on 9.1 miles of Deep Creek, which is in proper functioning condition. Stream channels of Deep Creek are generally vegetated with plant communities dominated by willows and have floodplains stabilized by rock even though excessive levels of sediment are being delivered to this portion of Deep Creek from degraded reaches upstream of the Big Springs Allotment.

The Owyhee River is functioning at risk due to elevated levels of sediment resulting from historical land use practices that are impacting channel shape and form.

***Rangeland Health Change:*****Early Summer Use (Northern portion of Pasture 4; Paddocks D and F)**

Channels and floodplains of the uppermost segment of Camas Creek are functioning at risk with an upward trend in condition as they recover from historical land uses (diversions and excessive livestock use) that resulted in loss of stream sinuosity.

**Early-Mid Spring Use (South-central portion of Pasture 4; B Paddocks)**

Trend monitoring shows segments of Dickshooter Creek vegetated with Baltic rush communities are maintaining high levels of bank cover, and willows are recruiting young-aged plants.

**Early-Mid Spring Use (Southern portion of Pasture 4; A Paddocks)**

Health of stream channels of the Owyhee River (14.1 miles of stream) is improving because vegetation, including willows, is establishing on point bars and the river channel is narrowing. Thus, the Owyhee River is making significant progress towards the standard.

***Information Sources:*** Stream Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian habitat inventories and monitoring conducted during 1995, 1998-2001, and 2004-2005.

**Potential Causal Factors:**

Potential causal factors affecting current streambank and stream channel condition are listed under the Evaluation for Standard 2.

**Evaluation Finding – Allotment is:**

- Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

**Rationale:**

Most stream channels in this Use Area are meeting the standard (22.6 miles of 41.3 stream miles), or are making significant progress towards the standard (17.6 miles) as they recover from impacts of historical land uses.

**Standard 4 (Native Plant Communities)**

Standard doesn't apply

Healthy, productive, and diverse native animal habitat and populations of native plants are maintained or promoted as appropriate to soil type, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- Native plant communities (flora and microbiotic crusts) are maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant species.
- The diversity of native species is maintained.
- Plant vigor (total plant production, seed and seedstalk production, cover, etc.) is adequate to enable reproduction and recruitment of plants when favorable climatic events occur.
- Noxious weeds are not increasing.
- Adequate litter and standing dead plant material are present for site protection and for decomposition to replenish soil nutrients relative to site potential.

**Related Management Framework Plan (MFP) Objectives:**

RM 1: Develop range programs and management techniques to:

- Increase 333,552 acres currently in poor range condition to fair condition in 20 years.
- Increase 343,522 acres currently in fair condition to good condition in 20 years.
- Maintain the condition class of 283,849 acres currently in good and excellent condition.

RM 3: Allocate livestock forage in each of the allotments in the Bruneau Planning Unit within the limits necessary to maintain and/or enhance the range and soil resource.

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.

**Related Management Framework Plan (MFP) Decisions:**

RM 1.1 (1): Implement intensive management (AMPs) on 14 allotments [including Big Springs]. Specifically:

- Livestock grazing management of . . . antelope winter/early spring ranges will be designed (system and season of use) to improve habitat conditions for wintering antelope.

RM 1.4: Develop livestock management facilities needed for implementation of AMPs and/or grazing systems which are designed to reach or maintain objectives and decisions throughout the MFP.

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 . . . Reduce livestock use levels from 16,248 to 14,254 AUMs over a 5 year implementation period based upon monitoring. [this was not implemented due to the lack of sufficient monitoring previously to determine the need for adjustment.]

WL 3.1: Manage 359,650 acres of mule deer winter and early spring range in the BPU . . . so there is adequate food, cover, and water for 2,255 animals by 1990. Specifically:

- Implement livestock grazing systems and practices that recognize the physiological requirements of shrubs . . . .
- Allow livestock to consume no more than 30% of the current annual production of key shrub species . . . .

WL 3.2: Manage 1,106,000 acres of mule deer spring, summer, and fall range . . . 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.

***Evaluation and Information Sources:***

In this Evaluation, component species of plant communities are referred to in four categories; decreaser, increaser, invader, and introduced plant species. Decreaser species are those native plant species that decrease in amount as a result of a specific abiotic/biotic influence or management practice. Increaser species are those native plant species that increase in amount as a result of a specific abiotic/biotic influence or management practice. Invader species are those non-native plant species that were absent in undisturbed portions of the original vegetation of a specific range site and will invade or increase following disturbance. The original range condition ratings were based upon the relative composition of these categories, particularly the composition of decreaser (deep-rooted) perennial grasses as estimated by the 1979-1980 rangeland inventory.

***Rangeland Health:*** Rangeland Health Evaluations were completed in all portions of the Black Use Area during June through September, 2004. Dry over-winter conditions continued through April, 2004, with above-normal precipitation during May and June, 2004. In 2005 and 2006, available biomass differed greatly from 2004, when the RHE and trend data were collected, based upon repeated photos of the same areas. 2004 was at the end of an extended period of below-normal precipitation, while 2005 and 2006 had favorable precipitation during the spring and summer months.

**A Paddocks**

Utilization in 2000 was practically nil over much of paddocks 4A1 to 4A6, particularly on top of Dickshooter Ridge and in stony low sagebrush areas. A substantial area of light use occurred on fine soils in paddock 4A2, near Dead Tree and Rocky Point Reservoirs. Substantial areas of moderate to heavy use occurred on fine-soiled big sagebrush areas in paddock 4A4 near Kincaid Reservoir and in paddocks 4A5 and 4B1 near Justo Reservoir. Use was also sporadically heavy along some intermittent drainages near water. Although overall utilization in 2000 was 13% in Paddocks 4A1 to 4A6, areas of heavy use do occur in some years when these areas are grazed. In 2005, overall utilization was 3% in Paddocks 4A1 to 4A6, while in 2006, overall utilization was 16% for this group of paddocks.

Standard 4 is being met in these paddocks. Most RHE sites are dominated by decreaser grasses. The ridges near the Owyhee River and areas having very rocky surfaces showed the least departure; however, on one Loamy RHE near the Owyhee River canyon, shrub decadence and cheatgrass encroachment are greater than expected. Overall, the area represented by that Loamy RHE is meeting the standard, but shrub decadence, presence of invasive species, and a shift in community composition has influenced its rating.

**B Paddocks**

Utilization in 2000 was practically nil over much of paddocks 4B1, 4B4, and 4B5, particularly on top of Dickshooter Ridge and in stony low sagebrush areas. Substantial areas of moderate to heavy use occurred on fine-soiled big sagebrush areas only in paddocks 4A5 and 4B1 near Justo Reservoir. Use was also sporadically heavy along some intermittent drainages near water. Overall utilization in 2000 was 13% in Paddocks 4B1 to 4B5. In 2005, overall utilization was 7% in Paddocks 4B1 to 4B5; while in 2006, overall utilization was 6%.

Standard 4 is being met in these paddocks, particularly in areas where livestock use is limited by access, slope, stoniness, or distance from water. Decreaser grasses are dominant or common at most RHE sites.

**C Paddocks**

Utilization in 2000 was not conducted over most of these paddocks; however, based on observation, stony areas generally received little or no use by livestock with utilization being heavier in areas where fine soils predominated.

Standard 4 is being met in these paddocks, particularly on the tables and benches. Most areas displayed good diversity, and high grass vigor and reproductive capability. The Stony Clayey RHE sites are in the best condition, with the plant community functioning adequately under this Standard.

**D Paddocks**

The D paddocks are exceptionally stony; stony areas generally received little or no use by livestock in 2000. Utilization was heavy or severe in localized areas where fine, non-stony soils predominated, particularly if water was available.

Standard 4 is being met in these paddocks, particularly on the tables and benches. Decreaser grasses are slightly below potential in some areas, however decreaseers are the dominant grass component overall and are showing good vigor and seedhead production.

**Wagon Box Basin (Pasture 4D3)**

Utilization was not recorded in this pasture in 2000. The June, 2004 photos suggest that utilization was heavy at trend site 10S2W34B in 2003, with little regrowth following use. The permittee indicated in June, 2005, that he makes heavier use of this area about once every third year. The heaviest stocking rate for Wagon Box Basin has been 12.9 acres/AUM.

Standard 4 is being met in this pasture. At two of the three RHE sites decreaseer grasses were lower than expected; however decreaseers were still dominant or common. At one of these, which is co-located with a long term trend site, trend for Idaho fescue was upward. The third RHE site in this pasture was at potential natural community condition and was used a reference area for this pasture during the assessment period.

***Rangeland Health Changes:*** The BLM trend studies in the JB&S Use Area were read five times, with several changes in grazing practices and periods of drought occurring between 1983 and 2004. The BLM studies were not read during the driest years during that period; therefore, the exact timing of changes in nested plot frequency cannot be determined. Mortality and recruitment often occur over several years, and trends may not become evident immediately. The permittee photos largely reflect findings from BLM studies for this Use Area, therefore these photo sites will not be discussed in detail. Most JB&S photo sites have a static or upward trend.

**A Paddocks**

Quantitative trend data were collected at two BLM sites in these paddocks, with static trend. Both were located in Shallow Claypan ecological sites.

**B Paddocks**

No BLM trend sites were located in these paddocks.

**C Paddocks**

Trend data were collected at two BLM sites in these paddocks, with trend ranging from static to upward (at the Shallow Claypan ecological site) to static to downward (at the Stony Clayey ecological site).

**D Paddocks**

Trend data were collected at three BLM sites in these paddocks, with static trend at all sites. All three were located in Clayey and Stony Clayey areas.

**Wagon Box Basin (Pasture 4D3)**

Quantitative trend data were collected at one BLM site (Shallow Claypan ecological site) in this pasture, with static to upward trend. In the accompanying photos, it was observed that Western juniper is expanding in the view photos.

**Information Sources:** Rangeland Health Evaluations from 2004, Trend and Photo Site data from 1987 to 2006, Soils and ESI data from 1981.

**Potential Causal Factors:**

Potential causal factors currently affecting plant community integrity and native species diversity are listed under the Evaluation for Standard 1.

**Evaluation Finding – Allotment is:**

  X   Meeting the Standard

\_\_\_\_\_ Not meeting the Standard, but making significant progress towards meeting it.

\_\_\_\_\_ Not meeting the Standard

**Rationale:**

Standard 4 is being met in this Use Area. Most of this Use Area is functioning properly biotically and is either showing a static or upward trend. Although stocking rates vary somewhat in each pasture from year to year, all pastures are generally very lightly stocked in most years. In addition, in most areas, the duration of grazing is short, allowing for regrowth after use, dependent on the amount of moisture available. This current system is allowing the native plant community to recover from past grazing practices that occurred prior to the installation of the current grazing system.

In general, RHE sites on the bottom areas (Loamy ecological sites) and those in the vicinity of water developments exhibited more of a departure than other areas. Utilization in 2000 was not conducted in most of this Use Area; however, utilization was heavier in areas where fine soils predominated.

Based on 2004 data, the RHE sites in the south (A paddocks) and south central (B paddocks) showed the most departure from reference conditions. In the C paddocks, most areas displayed good diversity and high grass vigor and reproductive capability. Trend data collected in the low sagebrush community was static to upward. In the stony alkali sagebrush community, trend was static to downward; however, Idaho fescue and needlegrass may not have been identified consistently making it difficult to determine trend at this site. In the D paddocks, decreaser grasses are slightly below potential in some areas; however decreaseers are the primary grass component overall and are showing good vigor and seedhead production. Trend was static in this pasture indicating that the native plant communities in this pasture are continuing to function properly under the current grazing system.

Standard 4 is also being met in Wagon Box Basin (Pasture 4D3). Much of the departure from reference conditions observed in this pasture has to do with past grazing practices. This is

supported by the trend data, which was upward for Idaho fescue in this pasture from 1983 to 2004.

**Standard 5 (Seedings)**

■ Standard doesn't apply

**Standard 6 (Exotic Plant Communities, other than Seedings)** ■ Standard doesn't apply

**Standard 7 (Water Quality)**

□ Standard doesn't apply

Surface and ground water on public lands comply with the Idaho Water Quality Standards. Indicators may include, but are not limited to, the following:

- Physical, chemical, and biologic parameters described in the Idaho Water Quality Standards.

Desired Conditions: All waters shall fully support beneficial uses as described in Idaho Administrative Procedures Act 58.01.02 (Water Quality Standards and Wastewater Treatment Requirements). This evaluation of whether the streams support beneficial uses (i.e., cold water aquatic life (CWAL), salmonid spawning (SS), primary contact recreation (PCR), and secondary contact recreation (SCR)) is largely based on assessments conducted by the Idaho Department of Environmental Quality of the upper Owyhee River subbasin; including streams in the Big Springs allotment. Streams in proper functioning condition and meeting State of Idaho water temperature criteria for cold water biota and sediment load targets were evaluated as providing suitable habitat for salmonids, including spawning. BLM monitoring for coliform bacteria was used to evaluate the PCR (ingestion of fecal coliform bacteria) and SCR (external contact with coliform bacteria) beneficial uses. In addition to the beneficial uses listed, all waters are assumed to support agriculture, industrial water supply, wildlife habitats and aesthetics.

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: Improve fisheries physical habitat to fair and good condition by 1989 in 144 stream miles that are in poor or fair condition. . . . Special priority should be given to improve habitat of redband trout (a sensitive species).

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: . . . Improve water quality in 18 stream sites to chemical constituent levels that are within proper tolerance levels for trout.

***Evaluation and Information Sources:***

***Rangeland Health:***

**Early-Mid Spring Use (southern portion of Pasture 4; A Paddocks)**

Deep Creek is not supporting cold water aquatic life (CWAL) or salmonid spawning (SS) beneficial uses and is transporting large amounts of sediment. Battle Creek exceeded CWAL criteria for temperature when sampled in 1994 and in 1997. No data are available to determine if these streams are meeting primary or secondary contact recreation criteria. Water quality has not been monitored in the Owyhee River in these paddocks.

**Early-Mid Spring Use (south-central portion of Pasture 4; B Paddocks)**

Water quality has not been monitored in Dickshooter Creek in these paddocks and Dickshooter Creek is rated as proper functioning.

**Late Spring Use (central portion of Pasture 4; C Paddocks)**

No perennial or major intermittent streams are located in this portion of Pasture 4.

**Early Summer Use (northern portion of Pasture 4; D and F Paddocks and Pasture 4D3)**

Pole Creek is not supporting CWAL or SS beneficial uses. Camas Creek is not supporting CWAL beneficial uses and has not been assessed for SS use support. No data are available to determine if these streams are meeting primary or secondary contact recreation criteria.

**Rangeland Health Changes:** Stream shade and percent fines would be used if available to evaluate compliance with shade and sediment targets established by IDEQ. Shade targets represent the amount of shade needed to comply with water temperature standards and may be refined, based on additional data or site potential. Deep Creek and the Owyhee River carry a high sediment load. This offsite sediment load affects trends in water quality in these streams.

**Early-Mid Spring Use (A Paddocks)**

Deep Creek is properly functioning and the Upper Owyhee TMDL did not specify shade targets for the lower reaches of Deep Creek. The Owyhee River was rated as functional-at risk with an upward trend in 2004. Battle Creek is properly functioning.

**Early-Mid Spring Use (B Paddocks)**

Dickshooter Creek is properly functioning and the Upper Owyhee TMDL set SS and CWAL shade targets of nearly 100% for the upper reaches and 94% for SS (June) and 65% for CWAL (July) for the lower reaches.

**Early Summer Use (D and F Paddocks and Pasture 4D3)**

Pole Creek is properly functioning, except for a 0.4 mile reach above and below the Camas Creek confluence, which is functional-at risk with a static trend. Camas Creek is either properly functioning or functional-at risk with an upward trend. The Upper Owyhee TMDL set SS and CWAL shade targets of nearly 100% for upper Pole Creek. The Upper Owyhee TMDL set SS and CWAL shade targets of nearly 100% for Camas Creek.

**Information Sources:** BLM riparian PFC surveys; BLM water quality monitoring 1995- 2000; IDEQ Upper Owyhee TMDL (2003), IDEQ BURP data (1994, 1999). It is not possible for BLM to monitor water quality along every stream reach in every pasture every year. Where site specific data are not available, BLM uses riparian survey data (e.g. shade, bank stability, channel dimensions, condition and type of riparian vegetation) to indirectly assess water quality parameters.

**Potential Causal Factors:****Areas where Standards Not Being Met**

Livestock from this Use Area generally do not access Deep Creek, Battle Creek, the Owyhee River, or lower Dickshooter Creek; therefore, current livestock management is not causing water impairments in them.

Pole Creek, along a 0.4 mile reach near the Camas Creek confluence, is being used under current livestock management from Pasture 7N of the SDR Use Area.

Excessive levels of sediment are being delivered to this portion of Deep Creek from degraded reaches upstream of the Big Springs Allotment.

Elevated levels of sediment from historical land use practices upstream of the Big Springs Allotment are also impacting channel shape and form and causing stream scouring on the Owyhee River.

**Areas where Standards Met**

Standards 2 and 3 (which are directly and indirectly related to Standard 7) are being met or are making significant progress along Camas Creek.

***Evaluation Finding – Allotment is:***

\_\_\_\_\_ Meeting the Standard

  X   Not meeting the Standard, but making significant progress towards meeting it.  
(Paddocks A-Battle Creek, Deep Creek, Owyhee River; Paddocks D-Camas Creek)

  X   Not meeting the Standard (Paddocks D-Pole Creek near Camas Creek)

***Rationale:***

None of the streams monitored are meeting Standard 7. Most riparian areas in the JB&S Use Area, however, are meeting standards 2 and 3 (22.6 miles of 41.3 stream miles), or are making significant progress towards these standards (17.6 miles). Riparian areas are grazed for short duration and then allowed sufficient time for re-growth to maintain plant vigor and cover.

**Standard 8 (Threatened/Endangered Plants and Animals)     Standard doesn't apply**

Habitats are suitable to maintain viable populations of threatened and endangered, sensitive, and other special status species. Indicators may include, but are not limited to, the following:

- Parameters described in the Idaho Water Quality Standards
- Riparian/wetland vegetation with deep, strong, binding roots is sufficient to stabilize streambanks and shorelines. Invader and shallow-rooted species are a minor component of the floodplain.
- Age class and structural diversity of riparian/wetland vegetation are appropriate for the site.
- Native plant communities (flora and microbiotic crusts) are maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant species.
- The diversity of native species is maintained.
- The amount and distribution of ground cover, including litter, for identified ecological site(s) or soil-plant associations are appropriate for site stability.

- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives:**

RM 5: Provide for protection and conservation of rare and endangered plants....

WL 2: Manage sensitive species habitats...to maintain or increase existing and potential populations.

The WL-AQ 2 Objectives and Decisions listed under Standard 2 are also relevant for Special Status Fish under Standard 8.

**Related Management Framework Plan (MFP) Decisions:**

RM 1.1 (1): Implement intensive management (AMPs) on 14 allotments [including Big Springs]. Specifically:

- Livestock rest or deferment systems would be established on critical sage grouse brood rearing areas.

WL 2.1: Manage 93,500 acres of bighorn habitat to provide adequate food, cover, water, and space for 420 bighorns by 1990...including 220 for the Owyhee River area:

WL 4.4: Manage 520,000 acres of sage grouse range...to improve nesting, brood rearing and winter habitats. Specifically:

- ...all poor and fair big sagebrush, meadow and riparian ecological sites should be improved and managed for good ecological condition....

***Special Status Fish (Redband Trout)***

***Evaluation and Information Sources:***

***Rangeland Health:***

**Early-Mid Spring Use (southern portion of Pasture 4; A Paddocks)**

The 9.1 miles of Deep Creek in this portion of Pasture 4 have properly functioning stream channels, floodplains, and riparian areas, but the stream is not providing suitable habitat for the maintenance of viable trout populations because of elevated stream temperatures. Stream temperatures are elevated and exceed State criteria for cold water aquatic life. Excessive levels of sediment are also negatively impacting trout rearing habitat.

**Early-Mid Spring Use (south-central portion of Pasture 4; B Paddocks)**

The 2.5 miles of Deep Creek in this portion of Pasture 4 have properly functioning stream channels, floodplains, and riparian areas, but the stream is not providing suitable habitat for the long-term maintenance of viable trout populations because of elevated stream temperatures that exceed State criteria for cold water aquatic life. Fine sediment is reducing the volume of interspaces in the stream substrate that are available for young trout and aquatic insects.

**Late Spring Use (central portion of Pasture 4; C Paddocks)**

No streams supporting redband trout are located in this portion of the JB&S Use Area.

**Early Summer Use (D and F Paddocks and Pasture 4D3)**

No streams supporting redband trout are located in this portion of Pasture 4.

**Information Sources:** Stream Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian and aquatic habitat inventories, and trout population monitoring conducted during 1995, 1998-2001, and 2004-2005.

**Potential Causal Factors:****Areas where Standards Not Being Met**

Stream temperatures are elevated and excessive levels of sediment are being delivered to Deep Creek due to poor watershed conditions upstream of the JB&S Use Area (above the Big Springs Allotment).

Division of the Big Springs Allotment into Use Areas through fencing facilitated creation of smaller pastures and has effectively ended season-long (including hot-season) grazing in the three Use Areas every year on upstream riparian areas where dependable water was available since fall, 1989.

Segments of Deep Creek within this Use Area are located in canyon segments with substantial amounts of rock in the floodplain that are inaccessible to livestock. In addition, use in the adjoining A and B paddocks generally occurs during April or May. The duration of grazing is typically short, allowing for regrowth after use, dependent on the amount of moisture available.

**Evaluation Finding – Allotment is:**

- Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

**Rationale:**

Redband trout habitats in lower Deep Creek in the JB&S Use Area are not accessible to livestock. Water temperatures and sediment levels are elevated due to poor watershed conditions upstream of these reaches of Deep Creek and outside of the Big Springs Allotment.

**Special Status Animals****Evaluation and Information Sources:**

**Rangeland Health:** Overall, the JB&S Use Area meets the standards for wildlife. Uplands and streams are generally in good habitat condition or improving, with productive native communities.

Sage grouse habitat assessments for breeding and brood-rearing showed that, overall, wet meadows, big sage patches, and low sage areas were in suitable habitat condition. This area contains regionally important late brood-rearing habitat – wet meadows- which are in good condition and used by sage grouse. The low sage areas support some of the densest and most varied spring forbs in the Bruneau Field Office, important for both sage grouse and antelope.

Spotted frog habitat was suitable, with pools, submerged vegetation, and banks vegetated with sedges and other stabilizing species.

**Rangeland Health Changes:** Streams that are rated as Functioning At Risk have signs of an upward trend, including new willow sprouts and sedges and rushes on the streambanks.

**Information Sources:**

- Stream and spring functioning condition assessments for Standard 2
- Upland Health assessments and trend studies for Standard 4
- Sage grouse lek (mating ground) surveys by helicopter in April-May 2004
- IDFG sage grouse historical lek database, 2003
- IDFG telemetry studies of sage grouse 2003-2005 (pers. comm.)
- Sage grouse habitat assessments in 2004 and 2005
- Conservation Data Center Rare Species database
- General wildlife field observations in 2004 and 2005

**Potential Causal Factors:**

**Areas where Standards Met**

The short duration grazing scheme is likely responsible for the generally good conditions and improvements on streams. This area is probably one of the most difficult areas in the Field Office to intensively manage cattle. The permittee has shown a lot of attention and effort in grazing management, which has resulted in positive effects on the land.

**Evaluation Finding – Allotment is:**

- X   Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

**Rationale:**

Uplands are mostly in good condition, with abundant forbs and the native shrubs and grasses appropriate for the ecological sites. Riparian areas are either already in Proper Functioning Condition, or if they are not, they are in an upward trend.

**Special Status Plants**

**Evaluation and Information Sources:**

**Rangeland Health:** Standard 8 is being met in this Use Area. There are three BLM SSP species known to occur in the Black Use Area. All three plants are Type 3 or Type 4 BLM Sensitive species. Owyhee River forget-me-not (*Hackelia ophiobia*) is a Type 3 plant. The Type 4 plants are Howell's one-flowered goldenweed (*Haplopappus uniflorus* var. *howelli*) and Bach's downingia (*Downingia bacigalupii*). Simpson's hedgehog cactus (*Pediocactus simpsonii*) also occurs in the Black Use Area. This species is on the BLM watch list (Type 5). Type 5 plants are not BLM Sensitive species, but are on the BLM Watch List, indicating that they may be of conservation concern if populations decline or new threats emerge.

**A Paddocks**

The standard was met for Owyhee River forget-me-not in these paddocks. The standard was also met for Simpson's hedgehog cactus. Hedgehog cactus occurs on rocky or sandy benches and canyon rims. During a site visit conducted in 1992, the site quality was rated as good, with approximately 200 plants present.

**B Paddocks**

The standard was met for the two Bach's downingia populations located in these paddocks. This annual species is found in drying mud of vernal pools, lakes, wet meadows, and streambanks. It has also been found in man-made structures such as reservoirs, roadsides and irrigation ditches. The population along Dickshooter Creek was assessed as being in very good condition because it is largely inaccessible to livestock. In 2009 the canyon appeared not to have had much grazing pressure or accessibility but in October 2010 riparian vegetation was heavily used and banks showed increased trampling. Given that this population was in the best condition of any observed to date in the field office, the condition rating may decline if late season grazing pressure were to continue.

The other population (EO 004) was not in good condition because of its location at a heavily trampled water source. Livestock were present at the time of the August 2009 monitoring which may account for the disturbance observed in this typically late spring grazed pasture. The later season use may be coinciding with *Downingia* development. Although, one population was not in good condition, the majority of the habitat and individuals was located in good condition wetlands in the Dickshooter Creek. Therefore, this paddock was rated as meeting standards.

The standard was also met for Owyhee River forget-me-not in this pasture. Owyhee River forget-me-not has a very restricted habitat (well-shaded talus, in cracks and crevices of rocky basaltic bluffs and cliffs, and steep banks of canyons). Because the deep canyons where this species grows, they are both remote and inaccessible. Impacts to Owyhee River forget-me-not are not a concern.

**C Paddocks**

The standard was not met for the Bach's downingia populations located in these paddocks. Both populations are located at developed water sources in 4C4. Population .002 was in fair to good condition for population vigor and habitat quality and had moderate impacts from livestock in 2009. It has had little change in site quality over the monitoring period from 1992 to 2009.

Population .003 was in poor to fair habitat condition and the population extent seems limited relative to the habitat. It spans both state and BLM land and the water level seems to fluctuate more than at other water sources where this species occurs. Species were observed high up on the bank and away from the more saturated soils.

**D Paddocks**

The standard was met for the Bach's downingia populations located in these paddocks. Both previously known populations appear healthy and vigorous. A new population was located along the edges of Yellow House Reservoir near population .020. Population vigor was fair to good and habitat condition was fair.

**Wagon Box Basin Pasture (Pasture 4D3)**

The standard was met for Howell's one-flowered goldenweed. This population was occupying the rocky openings of a mountain big sagebrush community. This population is healthy and vigorous.

***Rangeland Health Changes:*****A Paddocks**

Because of its remote and inaccessible habitat, the Owyhee River forget-me-not population was not revisited. However, the remoteness and precipitous nature of its location provides adequate protection from impacts, and therefore has a low probability of disturbance.

**B Paddocks**

Two populations of Bach's downingia are located in these paddocks. Population .001 was visited in 1992 and 2004. In 1992 approximately 200 plants were observed with population vigor assessed as fair. Population size was similar in 2004; however the population was assessed as being in good condition with excellent population vigor. Vigor and population size was much higher in 2009. A late season visit in October 2010 showed a decrease in site condition but the impacts to population trend will need to be monitored in 2011.

Population .004 was visited in 1992, 2005 and 2009 and briefly in October 2010. The population vigor and site quality has fluctuated since 1992. In 1992 approximately 30 to 50 plants were located with vigor assessed as poor to good. During the 2005 site visit, mechanical damage again appeared heavy in places, but the population (300 plants) was vigorous with diverse age classes represented. In 2009, less than 100 plants with poor vigor were observed. Overall habitat condition declined between 2005 and 2009. Because of its remote and inaccessible habitat the Owyhee River forget-me-not population located in these paddocks was not revisited.

**C Paddocks**

Two populations of Bach's downingia are located in these paddocks. During site visits conducted in 1992 and 2005, population vigor was assessed as good to excellent. Both populations displayed some degree of mechanical damage, ranging from light to moderate; however, both populations appeared vigorous, with many plants in flower and diverse age classes represented.

**D Paddocks**

The previously known population of Bach's downingia was assessed in both 1992 and 2005. In 1992 approximately 500 plants were located with vigor assessed as good. In 2005 a portion of this population was surveyed with approximately 1,000 plants observed. Although mechanical damage at this site is heavy in places, this population appears healthy and vigorous. One new population was also located in 2005. Mechanical damage was also noted at this location, however numerous flowering plants were observed.

**Wagon Box Basin Pasture (Pasture 4D3)**

Howell's one-flowered goldenweed was initially observed in 1995, with several hundred plants located and population vigor assessed as good.

***Information Sources:*** Species specific site-visits to known populations of special status plants (SSP) and historic population information on file at the BLM. Locations of known populations of SSP were identified using the Idaho Fish & Game Conservation Data Center (CDC) database and BLM field office maps. Data for species listed on the 2004 BLM sensitive species list were

collected. Only known populations of BLM SSP occurring in the Big Springs Allotment were analyzed. Inventories for SSP in this Use Area have primarily resulted from incidental observations from other work in the area, though this type of work has been limited. However, most known populations in this allotment were revisited during the spring and summer of 2004 and 2005, and 2009.

***Potential Causal Factors:***

**Areas where Standards Met**

Cattle are typically drawn to Bach's downingia habitat since it is a water source. This species can apparently persist in areas subjected to some trampling, at least in the short term, but it is unclear how much disturbance can be tolerated. Monitoring in 2004 and 2005 at the six Bach's downingia populations in the Black Use Area indicated some level of mechanical disturbance at all populations (i.e. trampling, pugging, and trailing around the water source). Despite these impacts, the Bach's downingia populations monitored were reported as being moderately healthy, vigorous, and reproductively capable at the time of observation (which occurred in June). In the Big Springs Allotment, this species has the greatest vigor and population density in areas not associated with mechanical disturbance from livestock.

Without flowers, which typically appear from May to August, Howell's one-flowered goldenweed is difficult to locate (particularly if the area has recently been grazed). Thorough inventories for this species have not been conducted. Because it is easily overlooked and based on the amount of appropriate habitat, it is possible that this species exists at other undiscovered sites in this area.

Simpson's hedgehog cactus has no specific phenological "critical" period since it remains above ground all year and is subject to herbivory or mechanical disturbance at any time. However, hedgehog cactus is typically resilient to grazing pressure due to its rocky habitat and its protective spines. The area where this species occurs in the A paddocks is very rocky and poorly watered and therefore livestock grazing impacts to this population are not a concern. In addition, impacts from cattle are not a threat to Owyhee River forget-me-not since the deep canyons where it grows are both remote and inaccessible to livestock.

***Evaluation Finding – Allotment is:***

- Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

***Rationale:***

Standard 8 is being met in the Black Use Area for all known SSP. Some of the SSP populations in these pastures are located in remote and inaccessible habitat types (i.e. Owyhee River forget-me-not) or have a higher resilience to livestock grazing (i.e. Simpson's hedgehog cactus).

Others, such as Howell's one-flowered goldenweed and Bach's downingia, are more vulnerable to disturbance. Howell's one-flowered goldenweed is difficult to locate, and it is possible that this species exists at other undiscovered sites in this area. Although Bach's downingia population numbers, vigor and site quality has fluctuated; this species can apparently persist in areas

subjected to some trampling even though it is unclear how much disturbance can be tolerated. All populations of SSP in this Use Area that were visited in 2004 and 2005 showed good vigor and reproductive capability and therefore the standard is being met. Population trend will continue to be monitored.

## SECTION 1 – IS A DETERMINATION REQUIRED?

All Standards are met or making significant progress towards meeting and there is conformance with the guidelines. **No Determination is required, review is complete.**

One or more Standards is not being met or there is non-conformance with the guidelines. **An Authorized Officer's Determination of causal factors is required.**

### Specifically:

*Standard 1-* The majority of the JB&S Use Area (over 90 percent) is meeting this standard and the watershed is functioning properly in terms of hydrologic function and soil stability.

*Standard 2-* Most riparian areas are meeting the standard, or are making significant progress towards the standard as they recover from impacts of historical land uses. Riparian areas are grazed for short duration and then allowed sufficient time for re-growth to maintain plant vigor and cover. Wetland areas at springs comprise a small proportion of the total riparian and wetland habitat in this Use Area. Therefore, overall the standard is being met for riparian and wetland areas.

*Standard 3-* Most stream channels are meeting the standard, or are making significant progress towards the standard as they recover from impacts of historical land uses.

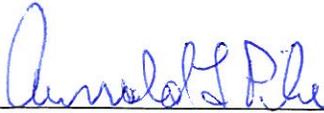
*Standard 4-* Most of this Use Area is functioning properly biotically and is either showing a static or upward trend. Although stocking rates vary somewhat in each pasture from year to year, all pastures are generally very lightly stocked in most years. In addition, in most areas, the duration of grazing is short, allowing for regrowth after use, dependent on the amount of moisture available. This current system is allowing the native plant community to recover from past grazing practices that occurred prior to the installation of the current grazing system.

*Standard 7-* None of the streams monitored in the JB&S Use Area are meeting Standard 7. However, most riparian areas are meeting standards 2 and 3, or are making significant progress towards these standards. Riparian areas are grazed for short duration and then allowed sufficient time for re-growth to maintain plant vigor and cover.

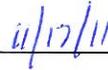
*Standard 8: Special Status Fish (Redband Trout) -* Redband trout habitats in the JB&S Use Area are not accessible to livestock. Water temperatures and sediment levels are elevated due to poor watershed conditions upstream of these reaches of Deep Creek and exceed State criteria for cold water aquatic life. Excessive levels of sediment are also negatively impacting trout rearing habitat.

*Special Status Animals-* Uplands are in good condition, with abundant forbs and the native shrubs and grasses appropriate for the ecological sites. Riparian areas are either already in Proper Functioning Condition, or if they are not, they are in an upward trend.

*Special Status Plants*- Standard 8 is being met in the Black Use Area for all known SSP. Some of the SSP populations in these pastures are located in remote and inaccessible habitat types or have a higher resilience to livestock grazing. Others are more vulnerable to disturbance; but may exist at other undiscovered sites or can apparently persist in areas subjected to some trampling. Population trend will continue to be monitored.



\_\_\_\_\_  
Authorized Officer



\_\_\_\_\_  
Date

## EVALUATION REPORT

### Achieving the Idaho Standards for Rangeland Health

Field Office: ID 120 Determination Date(s): October 17, 2011  
 Grazing Allotment Name/Number: Big Springs 0803- Dickshooter Cattle Co. (DCC) Use Area  
 Name of Permittee(s): Dickshooter Cattle Co. (DCC) (GRN# 1101677)

### STANDARDS APPLICABLE

Standards 1, 2, 3, 4, 7 and 8 are applicable to the Dickshooter Cattle Co. Use Area of the Big Springs Allotment.

An Evaluation is conducted to arrive at two outcomes (H-4180-1 page I-3):

- Firstly, an Evaluation conducts an analysis and interpretation of the findings resulting from the Assessment, relative to land health Standards, to evaluate the degree of achievement of land health Standards.
- Secondly, an Evaluation conducts an analysis and interpretation of information – be it observations or data from inventories and monitoring – on the [potential] causal factors for not achieving a land health Standard. An Evaluation of the suspected causal factors provides the foundation for a Determination.

BLM is further directed to evaluate all the data for each subdivided unit (i.e. allotment, watershed) to identify cause-effect relationships and draw conclusions about whether or not each Standard is being met for the Evaluation area as a whole (H-4180-1 page III-10).

### EVALUATE STANDARDS

#### Standard 1 (Watersheds)

Standard doesn't apply

Watersheds provide for the proper infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- The amount and distribution of ground cover, including litter, for identified ecological site(s) or soil-plant associations are appropriate for site stability.
- Evidence of accelerated erosion in the form of rills and/or gullies, erosional pedestals, flow patterns, physical soil crusts/surface sealing, and compaction layers below the soil surface is minimal for soil type and landform.

#### Related Management Framework Plan (MFP) Objectives:

WS 1: Maintain stability of 408,300 acres of moderate . . . erosion hazard classes by reducing or minimizing wind and water erosion.

#### Related Management Framework Plan (MFP) Decisions:

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.

### ***Evaluation and Information Sources:***

***Rangeland Health:*** Rangeland Health Evaluation Summary worksheets were completed in all portions of the Dickshooter Cattle Co. Use Area during July and August, 2004. Dry over-winter conditions continued through April, 2004, with above-normal precipitation during May and June, 2004. In 2005 and 2006, available biomass differed greatly from 2004, when the RHE and trend data were collected, based upon repeated photos. 2004 was at the end of an extended period of below-normal precipitation, while 2005 and 2006 had favorable precipitation during the spring and summer months.

### **Areas where Standards Met**

This Standard is being met on a majority (greater than 90 percent) of the DCC Use Area. The Standard is being met in all but the extreme southern portion of Pasture 8N (Loamy site near Lower Battle Creek Crossing Reservoir #2). In Pasture 8S, the Standard is being met in the south and central portions of the pasture but is not being fully met (at least two key indicators have a moderate or greater departure from reference conditions) at a Clayey site in the Frying Pan Basin area. These areas make up less than 10 percent of the DCC use area.

The northern and southern portions of the DCC Use Area are meeting this Standard with the exception of some historic erosional features (water flow patterns and pedestalled interspatial plants). Some of the loamy and churning clay ecological sites have more key indicators tending to the moderate departure range for this standard. Livestock tend to favor these sites over the stonier Clayey and Shallow-Claypan ecological sites. Active pedestaling is rare or absent on all but one Churning Clay site (10S01W13). Evidence of current soil erosion and deposition is minor at all but two preferred Loamy, Clayey, and Churning Clay sites (10S01E30 and 10S01W35).

The Stony Clayey (northern portion) and shallow-claypan (southern portion) ecological sites are in the best condition with the plant community functioning adequately under this standard. The southern half of Pasture 8S (particularly in the Freshwater Draw area) and the northwest portion of Pasture 8N are approaching reference levels.

### **Areas where Standards Not Fully Met**

Indicators at the Loamy RHE in Pasture 8N and at the Clayey RHE in Pasture 8S (basically the area both above and below Frying Pan Basin, which account for less than 10 percent of the pasture, include pronounced water flow patterns that are stable and short at the Loamy RHE and more numerous than expected at the Clayey RHE; plants on pedestals with exposed roots, interspatial physical soil crusts which were slightly active at the Loamy RHE and moderately active at the Clayey RHE; moderately more bare ground than expected at the Clayey RHE, and adverse plant community changes to infiltration at the Clayey RHE.

***Rangeland Health Changes:*** The BLM trend studies in the DCC Use Area were read five times, with several changes in grazing practices occurring between 1983 and 2004. The studies were not read during the driest years during that period, and cover of biological soil crust and grass species were not recorded separately in some years; therefore, the exact timing of changes

in basal cover categories cannot be determined. Mortality, recruitment, and litter accumulation often occur over several years, and trends may not become evident immediately.

**Areas where Standards Met**

The trend data for the four BLM sites in the DCC Use Area indicated a generally static trend in bare ground and basal cover of bunchgrass species. Persistent and non-persistent litter cover fluctuated some but was generally static.

**Information Sources:** Rangeland Health Evaluation Summary Worksheets from 2004, Trend and Photo Site data from 1987 to 2004, Soils and ESI data from 1981 to 1983, personal site visits from 1981 to 2005.

**Potential Causal Factors:**

**Areas where Standards Met**

Within the permitted season, use in both pastures is up to the discretion of the permittee in terms of movement of livestock. Most of the heavier stocking rates are in the 8 to 10 acres/AUM range; the lighter ones are in the 12 to 23 acres/AUM range; and the DCC Use Area was stocked at over 30 acres/AUM in many years, particularly during drought.

Use in pasture 8S usually occurs after May 1 every year. Use in that pasture occurs during the critical growth period for the key forage species each year. Pasture 8 was rested in 2008.

Use in Pasture 8N usually occurs after July 1 every year. The period of use occurs after the critical growth period in most years for the key forage species. A portion of the DCC herd is returned to the portion of Pasture 8N that lies north and east of Big Springs Creek in August and September when water and forage availability allow. In some years that portion is rested except for trailing across it in October.

**Evaluation Finding – Allotment is:**

- Meeting the Standard (over 90 percent of the DCC Use Area is meeting this Standard)
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

**Rationale:**

The majority of the Use Area (over 90 percent) is meeting this Standard and the watershed is functioning properly in terms of hydrologic function and soil stability. The DCC Use area has only small areas (less than 10 percent of the allotment) where the Standard is not being fully met and they are mainly in the Frying Pan Basin area.

**Standard 2 (Riparian Areas and Wetlands)**

Standard doesn't apply

Riparian-wetland areas are in properly functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- The riparian/wetland vegetation is controlling erosion, stabilizing streambanks, shading water areas to reduce water temperature, stabilizing shorelines, filtering sediment, aiding in floodplain development, dissipating energy, delaying flood water, and increasing recharge of groundwater appropriate to site potential.

- Riparian/wetland vegetation with deep strong binding roots is sufficient to stabilize streambanks and shorelines. Invader and shallow rooted species are a minor component of the floodplain.
- Age class and structural diversity of riparian/wetland vegetation is appropriate for the site.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: Improve fisheries physical habitat to fair and good condition by 1989 in 144 stream miles that are in poor or fair condition. . . . Special priority should be given to improve habitat of redband trout (a sensitive species).

WL 4: Manage upland game and waterfowl habitats in the Bruneau Planning Unit (BPU) to increase populations of these highly desired species.

WL 6: Manage all meadows and riparian habitat . . . to obtain a maximum diversity of vegetative species in order to provide for a maximum diversity and optimum abundance of wildlife species.

**Related Management Framework Plan (MFP) Decisions:**

WL-AQ 2.1: Upgrading fisheries habitat condition for red band trout and riparian associated wildlife will be the primary management objective on these [94.4] stream miles. [including part of an identified 3.40 mile segment of Battle Creek within or bordering this Use Area.... If intensive livestock management practices are implemented as the primary method to improve fisheries habitat condition, resource response would be carefully monitored. If habitat condition objectives are not being met, livestock would be excluded. Maintain an upward trend and fair to good condition on stream segments if livestock use is reintroduced after a period of rest.

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.

WL 6.1: . . . riparian and meadow habitats will be managed to attain and/or maintain a good ecological condition class....or reasonable equivalent. Specifically:

- Employ livestock management systems/practices/improvements including exclusion of grazing where necessary

***Evaluation and Information Sources:***

***Rangeland Health:*** Much of Battle Creek is within the Twin Bridges Enclosure that was fenced to exclude livestock use in the mid-1990's and is no longer within either pasture of the Dickshooter Cattle Co. Use Area. Within the Enclosure, 1.1 miles of Big Springs Creek is in functioning at risk condition because of an active headcut that is progressing up the stream.

**Mid-Spring/Early Summer Use (Pasture 8S)**

This Standard is being met on one mile of Cottonwood Draw in Pasture 8S. Cottonwood Draw is a tributary to Battle Creek and is located in a steep, rugged canyon. Battle Creek

canyon forms the southeastern boundary of Pasture 8S. There is limited access to Battle Creek from Pasture 8S because of steep canyon walls and cliffs.

Of the 9 wetlands at springs in Pasture 8S, 6 are functioning at risk and not meeting the Standard. Four wetlands are functioning at risk due to excessive disturbance of wetland soils, and two are functioning at risk because of historical impacts to the wetlands. Three wetlands were not assessed for functioning condition.

#### **Summer Use (Pasture 8N)**

The Standard is being met on about half of Battle and Dry creeks (5.1 of 10.2 stream miles) still within Pasture 8N. Much of Battle Creek is predominantly vegetated with willows and sedges and is meeting the Standard. Dry Creek downstream of a large storage reservoir is in proper functioning condition and is meeting the Standard.

The Standard is not being met on 4.4 miles of Big Springs Creek located upstream of the Twin Bridges Enclosure, and on about 0.3 mile of Battle Creek located at the northern pasture boundary. Streambanks are not adequately vegetated with bank-stabilizing species to resist the erosive forces of high stream flows. Willow cover is lacking and young-aged willows are not present on the uppermost 0.3 miles of Battle Creek, and on much of Big Springs Creek upstream of the Twin Bridges Enclosure. There is reduced cover, vigor, and density of other bank-stabilizing plant species.

Of the 3 wetlands at springs in the central portion of Pasture 8N, two wetlands are meeting the Standard and a third wetland is functioning at risk and not meeting the Standard. The health of the third was impacted by mechanical disturbance of wetland soils. The functioning condition of 2 playas was not assessed because they supported silver sagebrush plant communities and their functioning condition did not appear to be impacted.

***Rangeland Health Changes:*** Within the Twin Bridges Enclosure, 0.5 mile of Big Springs Creek is functioning at risk with an upward trend in condition, and therefore is making significant progress towards the Standard. Riparian areas downstream of the active headcut are being colonized by willows and sedges. However, an active headcut on Big Springs Creek within the Enclosure is placing 1.1 miles of the creek at risk of degradation as the headcut moves upstream and may continue into Pasture 8N.

#### **Mid-Spring/Early Summer Use (Pasture 8S)**

Two of six wetlands that are functioning at risk have active headcuts that are eroding soil from the wetland.

#### **Summer Use (Pasture 8N)**

Over 3 miles of Battle Creek located in a rocky, confined canyon upstream of the Twin Bridges Enclosure has an upward trend in condition since the construction of the Enclosure, and is now in proper functioning condition. About 4.4 miles of Big Springs Creek upstream of the Twin Bridges Enclosure has active headcuts and recruitment of young willows is lacking.

***Information Sources:*** Stream and spring Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian habitat inventories and monitoring conducted during 1995, 1998-2001, 2004-2005, 2007 and 2009.

#### ***Potential Causal Factors:***

##### **Areas where Standards Met**

Rugged, rocky canyons prevent or limit use of Battle Creek and Cottonwood Draw.

**Areas where Standards Not Being Met**

Livestock favor riparian areas associated with streams because of the lush forage and availability of water and shade. The congregation of livestock, especially during the hot season, can result in high grazing and browsing of riparian vegetation and mechanical disturbance to streambanks. Hot season use occurs on Big Springs Creek and on Battle Creek. Previously, the upper Battle Creek site was monitored as part of the Northwest Allotment.

Active headcuts place the riparian areas on the stream at risk of degradation from the channel incision moving upstream.

Five spring wetlands are functioning at risk due to excessive disturbance of wetland soils.

In another wetland, construction of a reservoir caused a headcut.

Historical uses caused multiple headcuts in another wetland.

***Evaluation Finding – Allotment is:***

- \_\_\_\_\_ Meeting the Standard
- \_\_\_\_\_ Not meeting the Standard, but making significant progress towards meeting it.
- X   Not meeting the Standard (4.6 miles of Big Springs and Battle creeks, and seven spring wetlands)

***Rationale:***

About half of the riparian areas in Pastures 8N and 8S are meeting the Standard (6.1 miles). Of the remaining 4.7 miles of Battle and Big Springs creeks, 4.4 miles of stream are functioning at risk with a downward trend in condition. Therefore, a substantial amount of riparian habitat is not meeting the Standard and is not improving.

Wetland areas at springs comprise a relatively small proportion of the total riparian and wetland habitat in these pastures. Two of the 9 wetlands assessed for functioning condition were at PFC, while 7 of the 9 assessed wetlands were functioning at risk and not meeting the Standard. Five of the 7 functioning-at-risk wetlands showed excessive disturbance to wetland soils. Additionally, two functioning-at-risk wetlands are not meeting the Standard because of an active headcut.

**Standard 3 (Stream Channel/Flood Plain)**

Standard doesn't apply

Stream channels and floodplains are properly functioning relative to the geomorphology (e.g., gradient, size, shape, roughness, confinement, and sinuosity) and climate to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- Stream channels and floodplains dissipate energy of high water flows and transport sediment. Soils support appropriate riparian-wetland species, allowing water movement, sediment filtration, and water storage. Stream channels are not entrenching.
- Stream width/depth ratio, gradient, sinuosity, and pool, riffle and run frequency are appropriate for the valley bottom type, geology, hydrology, and soils.

- Streams have access to their floodplains and sediment deposition is evident.
- There is little evidence of excessive soil compaction on the floodplain due to human activities.
- Streambanks are within an appropriate range of stability according to site potential.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives and Decisions:**

The WL-AQ 2 Objectives and Decisions listed under Standard 2 are also relevant for Standard 3.

***Evaluation and Information Sources:***

***Rangeland Health:*** Much of Battle Creek is within the Twin Bridges Exclosure and is now in proper functioning condition. Big Springs Creek within the Exclosure is in functioning at risk condition because of an active headcut.

**Mid-Spring/Early Summer Use (Pasture 8S)**

This Standard is being met on one mile of Cottonwood Draw in Pasture 8S.

**Summer Use (Pasture 8N)**

The Standard is being met on 5.1 miles of Battle and Dry creeks in Pasture 8N. Most of Battle Creek has stable streambanks and channels, and is now in proper functioning condition. Dry Creek downstream of a large storage reservoir is in proper functioning condition with stable channels and floodplains.

The Standard is not being met on 4.4 miles of Big Springs Creek located upstream of the Twin Bridges Exclosure, and on about 0.3 mile of Battle Creek located at the northern pasture boundary. Channels and streambanks are not adequately stabilized.

***Rangeland Health Changes:*** About 0.5 mile of Big Springs Creek now within the Twin Bridges Exclosure has an upward trend in condition downstream of the active headcut. This active headcut is placing 1.1 miles of the creek within the Exclosure at risk of degradation and may continue upstream into Pasture 8N.

**Mid-Spring/Early Summer Use (Pasture 8S)**

No trend data are available for Cottonwood Draw.

**Summer Use (Pasture 8N)**

Over 3 miles of Battle Creek upstream of the Twin Bridges Exclosure has an upward trend in condition. About 4.4 miles of Big Springs Creek upstream of the Twin Bridges Exclosure has active headcuts that place the stream at risk of degradation from the channel incision moving upstream.

***Information Sources:*** Stream Proper Functioning Condition assessments, utilization monitoring, actual use reports, riparian habitat inventories and monitoring conducted during 1995, 1998-2001, 2004-2005, and 2007.

***Potential Causal Factors:***

Potential causal factors affecting current streambank and stream channel condition are listed under the Evaluation for Standard 2.

***Evaluation Finding – Allotment is:***

\_\_\_\_\_ Meeting the Standard

\_\_\_\_\_ Not meeting the Standard, but making significant progress towards meeting it.

  X   Not meeting the Standard (4.7 miles of Big Springs and Battle creeks)

***Rationale:***

About half of the stream channels in Pastures 8N and 8S are meeting the Standard (6.1 miles). Of the remaining 4.7 miles of Battle and Big Springs creeks, 4.4 miles of stream are functioning at risk with a downward trend in condition. Therefore, a substantial amount of the stream channels that are accessible to livestock grazing are not meeting the Standard or improving.

**Standard 4 (Native Plant Communities)**

Standard doesn't apply

Healthy, productive, and diverse native animal habitat and populations of native plants are maintained or promoted as appropriate to soil type, climate, and landform to provide for proper nutrient cycling, hydrologic cycling, and energy flow. Indicators may include, but are not limited to the following:

- Native plant communities (flora and microbotic crusts) are maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant species.
- The diversity of native species is maintained.
- Plant vigor (total plant production, seed and seedstalk production, cover, etc.) is adequate to enable reproduction and recruitment of plants when favorable climatic events occur.
- Noxious weeds are not increasing.
- Adequate litter and standing dead plant material are present for site protection and for decomposition to replenish soil nutrients relative to site potential.

**Related Management Framework Plan (MFP) Objectives:**

RM 1: Develop range programs and management techniques to:

- Increase 333,552 acres currently in poor range condition to fair condition in 20 years.
- Increase 343,522 acres currently in fair condition to good condition in 20 years.
- Maintain the condition class of 283,849 acres currently in good and excellent condition.

RM 3: Allocate livestock forage in each of the allotments in the Bruneau Planning Unit within the limits necessary to maintain and/or enhance the range and soil resource.

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.

**Related Management Framework Plan (MFP) Decisions:**

RM 1.1 (1): Implement intensive management (AMPs) on 14 allotments [including Big Springs]. Specifically:

- Livestock grazing management of ...antelope winter/early spring ranges will be designed (system and season of use) to improve habitat conditions for wintering antelope.

RM 1.4: Develop livestock management facilities needed for implementation of AMPs and/or grazing systems which are designed to reach or maintain objectives and decisions throughout the MFP.

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 ...Reduce livestock use levels from 16,248 to 14,254 AUMs over a 5 year implementation period based upon monitoring. [this was not implemented due to the lack of sufficient monitoring previously to determine the need for adjustment.]

WL 3.1: Manage 359,650 acres of mule deer winter and early spring range in the BPU ...so there is adequate food, cover, and water for 2,255 animals by 1990. Specifically:

- Implement livestock grazing systems and practices that recognize the physiological requirements of shrubs....
- Allow livestock to consume no more than 30% of the current annual production of key shrub species....

WL 3.2: Manage 1,106,000 acres of mule deer spring, summer, and fall range ...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.

***Evaluation and Information Sources:***

In this Evaluation, component species of plant communities are referred to in four categories; decreaser, increaser, invader, and introduced plant species. Decreaser species are those native plant species that decrease in amount as a result of a specific abiotic/biotic influence or management practice. Increaser species are those native plant species that increase in amount as a result of a specific abiotic/biotic influence or management practice. Invader species are those non-native plant species that were absent in undisturbed portions of the original vegetation of a specific range site and will invade or increase following disturbance. The original range condition ratings were based upon the relative composition of these categories, particularly the composition of decreaser (deep-rooted) perennial grasses as estimated by the 1979-1980 rangeland inventory.

**Rangeland Health:** Rangeland Health Evaluations (RHEs) were completed in all portions of the Dickshooter Use Area during June through September, 2004. Dry over-winter conditions continued through April, 2004, with above-normal precipitation during May and June, 2004. In 2005 and 2006, available biomass differed greatly from 2004, when the RHE and trend data were collected, based upon repeated photos. 2004 was at the end of an extended period of below-normal precipitation, while 2005 and 2006 had favorable precipitation during the spring and summer months.

### **Pastures 8N and 8S**

Utilization in 2000 in Pasture 8N was locally moderate or heavy along fine-soiled portions of drainages, particularly at wet meadow inclusions; or on Churning Clay bottoms near scattered reservoirs. Moderate use occurred on many tableland escarpments. However, utilization in 2000 was minimal over the portion of this pasture south and west of Big Springs Creek; with an overall utilization of 10%.

Utilization in 2000 in Pasture 8S was moderate in and near Frying Pan Basin on tableland escarpments. Use was locally heavy along fine-soiled portions of drainages, particularly at wet meadow inclusions. Overall utilization in 2000 was minimal over most of this pasture, with an overall utilization of 10%.

Overall utilization for both pastures ranged from 6 to 10% in 2000, 2005, and 2006; but the Use Pattern Maps over-generalize the amount of heavy use that occurred along fine-soiled portions of drainages because utilization was nil where drainages were stony and where green vegetation was scarce.

Standard 4 is being met in these pastures, with most RHE sites having desirable bunchgrass species colonizing the sites, particularly the interspatial areas. Rangeland Health Evaluation sites in the northwest portion of Pasture 8N are close to reference conditions. Many of the Stony Clayey and Claypan RHEs in this Use Area have very stony to gravelly surfaces, which tend to protect them from disturbance. Slight departures from reference conditions occur at the Loamy RHE in the extreme southern portion of Pasture 8N and at the Clayey RHE in the extreme northern portion of Pasture 8S (the Frying Pan Basin area). However, that area makes up less than 10 percent of the DCC Use Area.

**Rangeland Health Changes:** The BLM trend studies in the DCC Use Area were read five times, with several changes in grazing practices and periods of drought occurring between 1983 and 2004. The studies were not read during the driest years during that period; therefore, the exact timing of changes in nested plot frequency cannot be determined. Mortality and recruitment often occur over several years, and trends may not become evident immediately.

### **Pasture 8N**

Frequencies of increaser and decreaser grasses and low sagebrush were static at both Stony Clayey trend sites, with the exception of squirreltail which decreased at one site. However, frequencies of onspike oatgrass and low sagebrush were consistently too low for a valid statistical test at one location and frequency of needlegrass was too low for a valid statistical test at both locations.

**Pasture 8S**

Two trend sites are located in this pasture, both at Shallow Claypan ecological sites. Trend ranged from static to upward to static to downward. The frequencies of Idaho fescue and needlegrass and of Sandberg bluegrass and bulbous bluegrass were each combined because of inconsistent identification in earlier years at both trend sites. At one site, frequencies of squirreltail, needlegrass, and low sagebrush decreased, while frequencies of Sandberg bluegrass and onspike oatgrass increased. Frequencies of phlox were too low for a valid statistical test. At the other site frequency was generally static for most vegetation species but frequency was upward for Idaho fescue. However, frequency of onspike oatgrass was too low for valid statistical test.

**Information Sources:** Rangeland Health Evaluations from 2004, Trend and Photo Site data from 1987 to 2006, Soils and ESI data from 1981, Utilization and Actual Use information.

**Potential Causal Factors:**

Potential causal factors currently affecting plant community integrity and native species diversity are listed under the Evaluation for Standard 1.

**Evaluation Finding – Allotment is:**

- Meeting the Standard
- Not meeting the Standard, but making significant progress towards meeting it.
- Not meeting the Standard

**Rationale:**

Standard 4 is being met in this Use Area, with most of the RHE sites in proper functioning condition. Some slight to moderate departure from reference conditions occurs in small, localized portions of Pastures 8N and 8S, particularly in the Frying Pan Basin area, but makes up less than 10 percent of this Use Area. These are associated with areas of moderate use (according to utilization data collected in 2000). However, utilization in this Use Area was minimal with an overall utilization of 10%. Most ecological sites have adequate native perennial bunchgrass cover and vigorous and reproductively capable populations of native plant species.

**Standard 5 (Seedings)  Standard doesn't apply**

**Standard 6 (Exotic Plant Communities, other than Seedings)  Standard doesn't apply**

**Standard 7 (Water Quality)  Standard doesn't apply**

Surface and ground water on public lands comply with the Idaho Water Quality Standards. Indicators may include, but are not limited to, the following:

- Physical, chemical, and biologic parameters described in the Idaho Water Quality Standards.

Desired Conditions: All waters shall fully support beneficial uses as described in Idaho Administrative Procedures Act 58.01.02 (Water Quality Standards and Wastewater Treatment Requirements). This evaluation of whether the streams support beneficial uses (i.e., cold water aquatic life (CWAL), salmonid spawning (SS), primary contact recreation (PCR), and secondary contact recreation (SCR)) is largely based on assessments conducted by the Idaho Department of Environmental Quality of the upper Owyhee River subbasin; including streams in the Big Springs allotment. Streams in proper functioning condition and meeting State of Idaho water temperature criteria for cold water biota and sediment load targets were evaluated as providing suitable habitat for salmonids, including spawning. BLM monitoring for coliform bacteria was used to evaluate the PCR (ingestion of fecal coliform bacteria) and SCR (external contact with coliform bacteria) beneficial uses. In addition to the beneficial uses listed, all waters are assumed to support agriculture, industrial water supply, wildlife habitats and aesthetics.

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: Improve fisheries physical habitat to fair and good condition by 1989 in 144 stream miles that are in poor or fair condition. . . . Special priority should be given to improve habitat of redband trout (a sensitive species).

**Related Management Framework Plan (MFP) Objectives:**

WL-AQ 2: . . . Improve water quality in 18 stream sites to chemical constituent levels that are within proper tolerance levels for trout.

***Evaluation and Information Sources:***

***Rangeland Health:*** The upper 27 miles of Battle Creek upstream of this pasture occur predominantly (> 95%) on private or State lands that are outside of BLM control. Water temperature at the uppermost reach of Battle Creek (near mile 33) exceeds water quality Standards as it enters Pasture 8N. Big Springs Creek also heads on the Big Springs Ranch and irrigates hay meadows before entering Pasture 8N.

**Summer Use (Pasture 8N)**

Battle Creek is not meeting the Standard because it is not supporting cold water aquatic life (CWAL) beneficial uses. Battle Creek is supporting primary and secondary contact recreation criteria, and there are no data during the salmonid spawning (SS) period to allow an evaluation. Big Springs Creek is not meeting the Standard; it did not meet CWAL criteria for temperature in 1998 or 1999. Dry Creek has not been monitored for SS or CWAL use support; but Dry Creek met CWAL temperature on 7/03/05 and did not meet CWAL temperature criteria when sampled on 7/27/99. No data are available for primary or secondary contact recreation or for SS for Big Springs or Dry Creeks.

**Mid-Spring/Early Summer Use (Pasture 8S)**

Downstream segments of Battle Creek are also not meeting the Standard for the same reasons as in Pasture 8N. The headwaters of Dickshooter Creek occur in this pasture and DEQ has not assessed this intermittent to ephemeral stream for beneficial use support.

***Rangeland Health Changes:*** Stream shade and percent fines would be used if available to evaluate compliance with shade and sediment targets established by IDEQ. Shade targets represent the amount of shade needed to comply with water temperature standards and may be refined, based on additional data or site potential. However, neither Battle nor Big Springs creeks meet water temperature standards where they enter public lands and are also subject to sediment from upstream, which affect trends in water quality in evaluated segments. In general 60-80%

stream shading is needed to comply with water temperature standards, but specific shade targets will differ by stream.

### **Summer Use (Pasture 8N)**

Battle Creek is properly functioning, except for the upper 0.3 miles, which is functional-at risk. Most of Big Springs Creek is functional-at risk with a downward trend. Dry Creek flow has been modified by a large reservoir and is rated as proper functioning downstream of the reservoir, but the stream has not been inventoried upstream of the reservoir. The Upper Owyhee TMDL did not set shade targets for these streams.

### **Mid-Spring/Early Summer Use (Pasture 8S)**

Battle Creek is properly functioning in Pasture 8S. The Upper Owyhee TMDL set shade targets of 100% for June and July and 62% for August along upper Dickshooter Creek. Dickshooter Creek contains discontinuous moist-wet meadow systems and has not been assessed for riparian proper functioning condition, but progress toward meeting Standard 7 is evident.

**Information Sources:** BLM riparian PFC surveys; BLM greenline inventory 1995; BLM water quality monitoring 1976, 77, 90, 91, 1995-2000, 2005; IDEQ Upper Owyhee TMDL (2003), IDEQ BURP data (1993-2002). It is not possible for BLM to monitor water quality along every stream reach in every pasture every year. Where site specific data are not available, BLM uses riparian survey data (e.g. shade, bank stability, channel dimensions, condition and type of riparian vegetation) to indirectly assess water quality parameters.

### **Potential Causal Factors:**

#### **Areas where Standards Not Being Met**

Water temperature at the uppermost reach of Battle Creek exceeds water quality Standards as it enters the Use Area.

The establishment and expansion of late seral riparian vegetation needed to shade the stream and stabilize stream banks is not being realized on 0.3 miles of Battle Creek at the upper end of the Use Area. This segment serves as a water gap from this and the adjoining allotment. Livestock do not access this stream below the Twin Bridges Enclosure.

Big Springs Creek heads on the Big Springs Ranch and irrigates hay meadows before entering Pasture 8N.

Big Springs Creek is not meeting the Standard in Pasture 8N because the establishment and expansion of late seral riparian vegetation needed to shade the stream is not being realized.

#### **Areas where Standards Met**

Dry Creek is being used as a conveyance from the reservoir to private land and current livestock use is allowing proper riparian function to occur.

Current livestock grazing management practices along the upper reaches of Dickshooter Creek are allowing progress toward meeting Standard 7. These are grazed only in spring, when temperatures are cooler.

### **Evaluation Finding – Allotment is:**

\_\_\_\_\_ Meeting the Standard

X Not meeting the Standard, but making significant progress towards meeting it.  
(Pasture 8S- Dickshooter Creek; 8N- Dry Creek)

X Not meeting the Standard (Pasture 8S- Battle Creek; 8N- Battle Creek, Big Springs Creek)

***Rationale:***

Standard 7 is strongly related to Standards 2 and 3. The majority of the stream channels within the Use Area are meeting Standards 2 and 3 or are making significant progress towards these standards.

Of the 4.7 miles of Battle and Big Springs creeks that are not meeting Standards 2 and 3, 4.4 miles of stream are functioning at risk with a downward trend in condition. These stream segments are also not meeting Standard 7 due to inadequate stream shading (which helps to block the direct rays of the sun from heating the water column), bank stability (unstable banks are sources of fine sediment, which adversely impacts fish habitat) and unfavorable channel dimensions (overwidened and shallow channels tend to absorb more solar radiation than narrow, deeper channels).

**Standard 8 (Threatened/Endangered Plants and Animals)**     Standard doesn't apply

Habitats are suitable to maintain viable populations of threatened and endangered, sensitive, and other special status species. Indicators may include, but are not limited to, the following:

- Parameters described in the Idaho Water Quality Standards
- Riparian/wetland vegetation with deep, strong, binding roots is sufficient to stabilize streambanks and shorelines. Invader and shallow-rooted species are a minor component of the floodplain.
- Age class and structural diversity of riparian/wetland vegetation are appropriate for the site.
- Native plant communities (flora and microbiotic crusts) are maintained or improved to ensure the proper functioning of ecological processes and continued productivity and diversity of native plant species.
- The diversity of native species is maintained.
- The amount and distribution of ground cover, including litter, for identified ecological site(s) or soil-plant associations are appropriate for site stability.
- Noxious weeds are not increasing.

**Related Management Framework Plan (MFP) Objectives:**

RM 5: Provide for protection and conservation of rare and endangered plants....

WL 2: Manage sensitive species habitats...to maintain or increase existing and potential populations.

The WL-AQ 2 Objectives and Decisions listed under Standard 2 are also relevant for Special Status Fish under Standard 8.

**Related Management Framework Plan (MFP) Decisions:**

RM 1.1 (1): Implement intensive management (AMPs) on 14 allotments [including Big Springs]. Specifically:

- Livestock rest or deferment systems would be established on critical sage grouse brood rearing areas.

WL 2.1: Manage 93,500 acres of bighorn habitat to provide adequate food, cover, water, and space for 420 bighorns by 1990...including 220 for the Owyhee River area:

WL 4.4: Manage 520,000 acres of sage grouse range...to improve nesting, brood rearing and winter habitats. Specifically:

- ...all poor and fair big sagebrush, meadow and riparian ecological sites should be improved and managed for good ecological condition....

***Special Status Fish (Redband Trout)******Evaluation and Information Sources:***

Redband trout populations are not known to inhabit streams on public land within the Dickshooter Cattle Co. Use Area.

***Special Status Animals******Evaluation and Information Sources:***

***Rangeland Health:*** Overall, the Dickshooter Use Area meets the Standard for wildlife habitat. In the northern part (Pasture 8N) seasonally wet meadows and big sage stringers are in generally in good condition, with varied forbs and vigorous native grasses. In the south (Pasture 8S), the long narrow strip of seasonally wet meadow associated with Dickshooter Creek gets heavy use in the spring, but regrows later in the summer within a few weeks after cattle have left. It provides important summer habitat to sage grouse.

The majority of streams in the Dickshooter Use Area are in good condition. However, there are two important riparian areas which are in marginal condition for wildlife habitat. These are Big Springs Creek above the Twin Bridges Exclosure, and Battle Creek for 0.3 mi below the private land; where spotted frogs occur. Big Springs Creek is a sedge-lined channel for most of its length. There are some stretches that support willows, and in these areas the willows are fewer than should be. The sedge-lined channel is an altered stream, because it is downcut from its original level sometime in the past, and there are still several headcuts moving up the stream. It currently provides green forbs for summer sage grouse food, but these conditions threaten the long-term maintenance of the habitat.

Upland communities are in generally good habitat condition, having appropriate amounts of the native plants, except for in Frying Pan Basin, where cover from grasses is low (see Standard 4). Most of the allotment is low sage, but mountain big sage occurs in long strips under rims and in patches. These strips and patches are generally in good condition with abundant grass and forb cover, e.g., along the east side of Big Springs Butte. Populations of pygmy rabbits occur in these strips, and they also provide suitable habitat for nesting sage grouse.

***Rangeland Health Changes:*** At some springs and wet meadows, historical headcuts appear to no longer be active, indicating that grazing practices are improved. Trend on Big Springs Creek above Twin Bridges Exclosure appears static to downward.

**Information Sources:**

- Stream and spring functioning condition assessments for Standard 2
- Upland Health assessments and trend studies for Standard 4
- Sage grouse lek (mating ground) surveys by helicopter in April-May 2004 and 2005
- IDFG sage grouse historical lek database, 2003
- IDFG telemetry studies of sage grouse 2003-2005 (pers. comm.)
- Sage grouse habitat assessments in 2004 and 2005
- Conservation Data Center Rare Species database
- General wildlife field observations in 2004 and 2005

**Potential Causal Factors:**

Two important riparian areas are in marginal condition for wildlife habitat with broken and bare banks in places that threaten the long-term maintenance of the habitat. Livestock tend to congregate in riparian areas during the hot season.

The long narrow strip of seasonally wet meadow along Dickshooter Creek regrows later in the summer within a few weeks after cattle have left.

Localized areas in mountain sagebrush patches and several smaller wetlands get trampled.

**Evaluation Finding – Allotment is:**

X Meeting the Standard (most upland and wetland habitats)

\_\_\_\_\_ Not meeting the Standard, but making significant progress towards meeting it.

X Not meeting the Standard (Big Springs Creek above Twin Bridges Enclosure and 0.3 miles of Battle Creek below the private land)

**Rationale:**

The riparian area of Big Springs Creek is mapped as important sage grouse brood-rearing habitat in the Bruneau MFP, and it is by far the largest area mapped in the entire Bruneau Field Office. The MFP goal 4.4 (1) states: “To improve the quality of sage grouse nesting and brood rearing habitats, all poor and fair big sagebrush, meadow, and riparian ecological sites should be improved and managed for good ecological condition, based on the SCS ecological site classification system.”

**Special Status Plants****Evaluation and Information Sources:**

**Rangeland Health:** Standard 8 is being met in the Dickshooter Use Area. There is one BLM SSP known to occur in Pasture 8N of this Use Area. This species, Bach’s downingia (*Downingia bacigalupii*), is currently listed as a Type 4 BLM Sensitive species. This annual species is found in drying mud of vernal pools, lakes, wet meadows, and streambanks. It has also been found in man-made structures such as reservoirs, roadsides and irrigation ditches. No SSP are known from Pasture 8S.

**Rangeland Health Changes:** The Bach’s downingia population previously identified in this pasture was located in 1999 in a vernal pool depression. Approximately 30 to 50 plants were located at this site. During this visit, which was conducted in late July, it was reported that

numerous plants were found fruiting, but the plants did not occupy all of the potential micro-habitat. Mechanical damage was noted as a potential threat to this population. In 2005, only one plant was located at this site. Heavy mechanical damage was observed around the small ponded area. However, 2005 monitoring wasn't conducted until September because heavy spring precipitation made access to this site difficult. The full extent of the population might not have been documented since this plant typically starts growing in late May with most individuals in a population dispersing seed and becoming dormant by the end of August.

**Information Sources:** Species specific site-visits to known populations of special status plants (SSP) and historic population information are on file at the BLM. Locations of known populations of SSP were identified using the Idaho Fish & Game Conservation Data Center (CDC) database and BLM field office maps. Data for species listed on the 2004 BLM sensitive species list were collected. Only known populations of BLM SSP occurring in the Big Springs Allotment were analyzed. Inventory work for SSP in this area has been limited. However, known populations in the Big Springs allotment were revisited during the spring and summer of 2004, 2005, and 2009. A new one was located in this Use Area in 2009.

**Potential Causal Factors:**

Cattle are typically drawn to Bach's downingia habitat since it is a water source.

Bach's downingia can apparently persist in areas subjected to some livestock trampling, at least in the short term, although it is unclear how much disturbance can be tolerated.

**Evaluation Finding – Allotment is:**

Meeting the Standard

Not meeting the Standard, but making significant progress towards meeting it.

Not meeting the Standard

**Rationale:**

Additional populations of Bach's downingia are known from the adjacent Black Use Area, also located within the Big Springs Allotment. Monitoring in 2004, 2005 and 2009 at six Bach's downingia populations in the Black Use Area indicated similar habitat conditions as those observed at this site (i.e. trampling, pugging, and trailing around the water source). Despite these impacts, the Bach's downingia populations monitored in that area were reported as being moderately healthy, vigorous, and reproductively capable at the time of observation (which occurred in June).

**SECTION 1 – IS A DETERMINATION REQUIRED?**

All Standards are met or making significant progress towards meeting and there is conformance with the guidelines. **No Determination is required, review is complete.**

One or more Standards is not being met or there is non-conformance with the guidelines. **An Authorized Officer's Determination of causal factors is required.**

**Specifically:**

*Standard 2-* In the DCC Use Area, 4.4 miles of Battle and Big Springs creeks are functioning at risk with a downward trend in condition. Therefore, a substantial amount of riparian habitat is not meeting the Standard and is not improving. Also, 5 of 9 wetlands assessed for functioning

condition showed excessive disturbance to wetland soils. Additionally, one wetland is not meeting the Standard because of an active headcut.

*Standard 3-* A substantial amount of the stream channels in the DCC Use Area are not meeting the Standard or improving.

*Standard 7-* In the DCC Use Area, 4.4 miles of Battle and Big Springs creeks are functioning at risk with a downward trend in condition. These stream segments are also not meeting Standard 7 due to inadequate stream shading (which helps to block the direct rays of the sun from heating the water column), bank stability within and upstream of the allotment (unstable banks are sources of fine sediment, which adversely impacts fish habitat) and unfavorable channel dimensions (overwidened and shallow channels are tend to absorb more solar radiation than narrow, deeper channels).

*Standard 8: Special Status Animals-* The riparian area of Big Springs Creek is mapped as important sage grouse brood-rearing habitat in the Bruneau MFP, and it is by far the largest area mapped in the entire Bruneau Field Office. It is in marginal condition for wildlife habitat with broken and bare banks in places that threaten the long-term maintenance of the habitat.

Arnold L. Pike \_\_\_\_\_ 11/17/11 \_\_\_\_\_  
Authorized Officer Date