EVALUATION REPORT

Achieving the Idaho Standards for Rangeland Health

Field Office: **Bruneau (ID 120)** Evaluation Date(s): **September 12, 2014**

Grazing Allotment Name/Number: **Big Springs 0803 - Dickshooter Use Area**

Name of Permittee(s): **Simplot Corporation – Dickshooter Cattle Company**

Introduction

The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management (Standards and Guidelines) is a suite of management goals used to maintain or improve resources, protect cultural resources and sensitive habitat, and sustain productivity of rangelands. This document provides the evaluation of information presented in the rangeland health assessment (i.e., resource conditions and trends) and indicates whether or not Standards are being achieved. This document also provides a rationale for each evaluation outcome and preliminary finding of causal factors affecting conditions where Standards are not being met.

If one or more Standards are not being met, the BLM will prepare a Determination. Once signed, the Determination is the official document identifying the causal factors for not meeting Standards. The Determination also identifies where there is non-conformance with the Guidelines, if any. The Determination will be prepared concurrently with (or may precede) the grazing permit renewal environmental assessment; which is valuable in the development of grazing management strategies to meet or make progress toward meeting Standards and conform to Guidelines.

Applicable Standards

Standards 1 (Watersheds), 2 (Riparian Areas and Wetlands), 3 (Stream Channel and Floodplain), 4 (Native Plant Communities), 7 (Water Quality), and 8 (Threatened and Endangered Plants and Animals) are applicable to the Dickshooter Use Area (DCC) of the Big Springs Allotment.

Standard 1: Watersheds

Desired Conditions

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.

The management objectives identified in the Bruneau MFP identify the need to maintain stability of 660,000 acres of moderate, high, and critical erosion hazard classes by reducing or minimizing wind and water erosion. The moderate erosion class includes all of the Big Springs Allotment. The MFP states that erosion will be minimized by maintaining good perennial vegetation cover where it exists and by establishing perennial vegetation cover where feasible and economical. If establishment is not feasible/economical, manage to achieve stable watershed conditions. To achieve these decisions, livestock management would maintain or improve existing perennial forage plants by not allocating more than 50% of vegetation to consumptive use, adjusting season of use, implementing grazing systems and associated projects, and providing for proper timing with regard to soil moisture content.

Pasture 8N (Summer Use)

Synopsis of Assessment Findings

The 2004 data indicated none to a slight departure as a whole for site stability and watershed function-related Indicators within Pasture 8N. The Stony Clayey stand reevaluated in 2012 again showed little departure from reference condition. Trend data from 1983 through 2012 indicated a generally static trend in persistent litter, live vegetation basal cover, and basal cover of increaser and decreaser grasses at 11S01W02, a Stony Clayey stand. Trend data indicated a generally static trend in bare ground and basal cover of decreaser grasses at 11S01E08, another Stony Clayey stand. Overall, live vegetation, increaser grass basal cover and persistent litter were all static at that location between 1983 and 2012. A static trend in desirable components is acceptable in stands such as these that have reached their potential composition and cover, although temporal variability may still occur.

Evaluation Finding – Pasture 8N is:

X Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
_ Not meeting the Standard

Rationale for Evaluation Finding

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. Consequently, bunchgrass vigor, mortality (crown die-out), available biomass, amount of bare ground, and other characteristics differed greatly from 2004, when the RHE and trend data were collected for the original Assessment. Both typically grazed and ungrazed areas showed the same pattern throughout the DCC Use Area during those years. The observed fluctuation in watershed cover categories at trend studies primarily reflects plant dieback and expansion and litter accumulation or loss as influenced by fluctuation in growth year precipitation. Consumption by grazing livestock also contributes to the result at times on fine soiled communities near water.

Biomass of Idaho fescue was much higher in 2012 on the reevaluated stand after several normal or wet years than in 2004 after several successive dry years; with little evidence of the mortality on bunchgrasses that was commonly found in 2004.

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

Synopsis of Assessment Findings

The 2004 data indicate none to a slight departure as a whole for site stability and watershed function-related Indicators within Pasture 8S. The Claypan stand revaluated in 2012 again showed little departure from reference condition. Trend data during 1983 to 2012 indicated a generally static trend in live

vegetation basal cover, in basal cover of increaser and decreaser grasses and in biological soil crusts at 12S01W23. This study site has inherently low bare ground that biocrusts could potentially colonize. Trend data also indicated a static trend in persistent litter, bare ground, and basal cover of increaser and decreaser grasses at 12S01W32. Bare ground and biological soil crusts at that location showed a strongly complementary change between 2004 and 2012, possibly reflecting the influence of several normal or wet years on this concave intermound Claypan stand. Interspersed convex intermound Claypan stands were also considered in this evaluation area and showed note to a slight departure from reference conditions. A static trend in desirable components is acceptable in stands such as these that have reached their potential composition and cover, although temporal variability may still occur.

Evaluation Finding – Pasture 8S is:

X Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
_ Not meeting the Standard

Rationale for Evaluation Finding

Biomass, particularly of perennial grasses, was much higher in 2012 on the reevaluated Claypan stand after several normal or wet years than in 2004 after several successive dry years, with only slight mortality on bunchgrasses.

A long-term photo point that has been monitored since 1987 (13S02W13A) reflected crown die-off of perennial grasses, reduced production, or declining non-persistent litter cover during the period of lower precipitation from 1987 to 1994 and documented subsequent fluctuation in cover categories. Little additional change is evident between the 2006 and 2012 photos, except possibly some minor turnover in individual Sandberg bluegrass plants. Both were influenced by recent relatively favorable growth years. Change over time reflects primarily climatic fluctuation, and the photo plot probably represents the potential for the low mound it is located on.

Information Sources

Bruneau Management Framework Plan, 1983.
Bruneau Rangeland Program Summary, 1983.

Standard 2. Riparian Vegetation and Wetlands

Desired Conditions

Riparian areas are in proper functioning condition appropriate to soil type, climate, geology, and landform to provide for proper nutrient cycling, and energy flow.

The Bruneau MFP established the following objectives for native plant communities:

- 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.
- 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

Pasture 8N (Mid-Spring/Early Summer Use)

Synopsis of Assessment Findings

All evaluated sections of Battle Creek were in proper functioning condition (PFC). Two segments of Dry Creek were in PFC. All livestock accessible segments (6.7 miles) of Big Springs Creek were in functioning at risk (FAR) with downward trends. Two springs in pasture 8N were FAR with evident upward trend. One spring was FAR with undetermined trend.

Evaluation Finding – Pasture 8N is:

_ Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
X Not meeting the Standard

Rationale for Evaluation Finding

All livestock accessible segments of Big Springs Creek and the water gap on Battle Creek are FAR and not meeting Standard 2; vegetation characteristics and densities are not appropriate for soil type, climate, geology, and landform to provide for proper for nutrient cycling, hydrologic cycling, energy flow, and streambank stability. Stream bank segments that are FAR are not adequately vegetated with bank-stabilizing species to resist the erosive forces of high stream flows. In addition, several headcuts are present on Big Springs Creek, both inside, and upstream of the Twin Bridges exclosure. Willow cover is sparse, and willows are not present in suitable sites where they should occur. Each of these sections of Big Springs Creek were either in a downward or static trend. The lack of progress since 1998 towards meeting the standard contributed to this finding.

Preliminary Causal Factors

High levels of livestock grazing utilization are present on willows and on sedges/rush communities along Big Springs Creek upstream of the Twin Bridges Exclosure. One 0.3-mile-long FAR segment of Battle Creek is fully accessible to livestock, as it serves as a water-gap, so it receives some use in the spring grazing period. Current grazing utilization levels and historic grazing use practices in Big Springs Creek are major factors. In addition, diversion of perennial spring flows in Big Springs Creek has altered the stream hydrology, and resulted in a considerable reduction of late season stream flows in the lower segments. With springs, livestock concentration at these watering sites has resulted in soil disturbance, soil compaction, reduction in wetland area, and loss of wetland plant species.

Pasture 8S (Summer Use)

Synopsis of Assessment Findings

All segments of Battle Creek are inaccessible to livestock, and are in PFC. Seven springs are in PFC. One small spring is in FAR condition due to historic disturbances (pond excavation) and on-going concentrated livestock grazing. A second undeveloped spring is FAR from pugging, shearing, and compaction of wetland soils.

Evaluation Finding – Pasture 8S is:

_X_ Meeting the Standard
__ Not meeting the Standard, but making significant progress towards meeting
__ Not meeting the Standard

Rationale for Evaluation Finding

All Battle Creek segments were in PFC. Seven out of nine springs were in PFC. One small developed spring was in FAR condition. Historic pond excavation and current livestock concentrations at one spring

which was developed in the past is the primary reason for the FAR condition rating. A second spring was not developed but had impacts associated with trampling and compaction. However, overall good conditions in riparian areas throughout Pasture 8S outweigh the condition at the two springs.

Information Sources

USDI BLM 2014. United States Department of the Interior, Bureau of Land Management Big Springs Allotment Fish Biologist report. USDI BLM 2014. United States Department of the Interior, Bureau of Land Management Big Springs Allotment Natural Resources Specialist report, June 2014.

Standard 3. Stream Channels and Floodplains

Pasture 8N (Mid-Spring/Early Summer Use)

Synopsis of Assessment Findings

All evaluated segments of Battle Creek were in PFC. All segments of Big Springs Creek (6.7-stream-miles) were functioning-at-risk with downward trend condition due to headcuts and streambank disturbance.

Evaluation Finding – Pasture 8N is:

__ Meeting the Standard
__ Not meeting the Standard, but making significant progress towards meeting
_X_ Not meeting the Standard

Rationale for Evaluation Finding

All segments of Big Springs Creek were in functioning-at-risk (FAR) due to historic influences and current use by livestock. Some segments of the stream had increased streambank erosion due to bank shearing by livestock. Several active headcuts are present in Big Springs Creek. The lack of progress towards meeting streambank stability standards factored into this rating.

Preliminary Causal Factors

Streambanks along Big Springs Creek are not able to heal and achieve site potential because of inadequate vegetation cover as a result of livestock use. Vertical plant communities are needed to reduce the erosive forces on streambanks. At present, willows are not able to establish because they are not able to reach a height where they can withstand grazing.

Pasture 8S (Summer Use)

Synopsis of Assessment Findings

Cottonwood Draw is not accessible to livestock and is in PFC. All segments of Battle Creek are inaccessible to livestock, and are in PFC.

Evaluation Finding – Pasture 8S is:

_X_ Meeting the Standard
__ Not meeting the Standard, but making significant progress towards meeting
__ Not meeting the Standard

Rationale for Evaluation Finding

All reaches are inaccessible and in PFC.

Information Sources

USDI BLM 2014. United States Department of the Interior, Bureau of Land Management Big Springs Allotment Fish Biologist report. USDI BLM 2014. United States Department of the Interior, Bureau of Land Management Big Springs Allotment Natural Resources Specialist report, June 2014.

Standard 4: Native Plant Communities

Desired Conditions

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.

The Bruneau MFP established the following objectives for native plant communities:

- 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 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: Allocate livestock forage in each allotment in the Bruneau Planning Unit so as to maintain or enhance the range and soil resources.

Pasture 8N (Mid-Spring/Early Summer Use)

Synopsis of Assessment Findings

An ID team sampled 14 locations in this pasture in 2004 and revisited one of those in 2012 for re-sampling. The evaluation areas in this pasture displayed little departure for the native plant community indicators in 2004. Ten of the 15 (67 percent) assessments departed little, if at all from reference conditions. Churning Clay and Loamy ecological sites within proximity of water developments exhibited more departure from reference conditions. The remaining five sites exhibited slight, to moderate departure.

The most common indictor of reduced biotic integrity during the assessments was an under-representation of large perennial bunchgrass plants. ID Teams found the large bunchgrass group particularly depleted on Loamy sites on the pasture's southern end, where reproductive capability had been reduced. At that location, the sagebrush stand was both over-represented and decadent.

The trend in vegetation condition in the pasture has been static to slightly upward since the 1980s, when the initial inventory was completed. At that time, most of the pasture was in fair to good condition and these conditions have essentially been maintained or improved. Idaho fescue frequency has increased slowly at one location, while sagebrush frequency declined.

Invasive plants were only observed at two assessment locations. Bulbous bluegrass was scattered in trace amounts at the Stony Clay (10S01W22) RHE in 2004 and 2012. In the northwest portion of the pasture bulbous bluegrass was typically associated with disturbed areas, such as burrows. Bulbous bluegrass was more abundant at Loamy sites at the pasture's southern end. In general, invasive plants are not a major driver of ecological function in this pasture.

Evaluation Finding – Pasture 8N is:

x Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
_ Not meeting the Standard

Rationale for Evaluation Finding

The majority of rangeland health assessments closely matched reference conditions for the ecological sites. Declines in plant community integrity are limited in both magnitude and area. The plant communities are functioning well, despite the under-representation of large native bunchgrasses in localized areas. Land use plan objectives for upland vegetation are being met.

Pasture 8S (Summer Use)

Synopsis of Assessment Findings

An ID team sampled indicators of native plant community health at ten locations in this pasture in 2004 and revisited one of those in 2012 for re-sampling. Most RHEs showed little departure for the native plant community indicators. The Frying Pan Basin area showed the most departure from reference conditions for the indicators, while RHEs in the southern portions of the pasture were generally at or near reference conditions.

Large bunchgrasses (Idaho fescue) are under-represented in the Frying Pan Basin area of this pasture. The 2004 ID Team noted reduced vegetative cover overall at these sites and substantial use by livestock. Grasses at this location exhibited pedestaling, moderately low vigor, and exposed roots. Grass species elsewhere in this pasture are vigorous, with adequate seed head production.

Trend in this pasture has been mixed since 1982 but no major changes have occured. The initial inventory categorized fair range conditions throughout the majority of this pasture (USDI BLM 2014). The site east of the private ranch (12S01W23) could still be considered fair condition, though needlegrass frequency has declined there. Elsewhere, further south, needlegrass frequency has increased slightly, though Idaho fescue has declined. At both monitoring sites, sagebrush frequency has declined by more than half of initial measurements. Perennial forbs continue to be well represented at both sites

Noxious weeds were not observed. Invasive plants were noted in two locations. Bulbous bluegrass was scattered in the middle of this pasture on Claypan sites east of the private ranch (12S01W23), but was more common in northern areas of the pasture, near the Frying Pan Basin area (12S01W12).

Evaluation Finding – Pasture 8S is:

X Meeting the Standard

_ Not meeting the Standard, but making significant progress towards meeting
_ Not meeting the Standard

Rationale for Evaluation Finding
The condition of the native plant communities in the pasture is generally good with a couple exceptions. For the most part, the native plants in this pasture are functioning well to provide cover, cycle nutrients, water, and energy appropriately to their ecological sites. Noxious weeds have not been detected. Primary production has been within range of natural variation. Static to slightly downward trends indicate a slight shift away from large bunchgrass dominance in some areas. However, the magnitude of this shift has been only slight, having little, if any effect on the plant communities ability to meet the land health standard for native plants. Land use plan objectives are being met in the pasture.

Information Sources

USDI BLM 2014. United States Department of the Interior, Bureau of Land Management. Big Springs Allotment Upland Vegetation Specialist Report. Bruneau Field Office.

Standard 7. Water Quality

Desired Conditions

Surface and groundwater on public lands comply with the Idaho Department of Environmental Quality's (IDEQ) Water Quality Standards.

Pastures 8N (Mid-Spring/Early Summer Use) & 8S (Summer Use)

Synopsis of Assessment Findings
Owyhee River, and Deep, Pole, creeks are listed as not meeting water quality standards. IDEQ is the final authority on determining water quality in the state.

Evaluation Finding – Pasture 8N/8S is:
_ Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
X Not meeting the Standard

Rationale for Evaluation Finding
The Idaho Department of Environmental Quality (IDEQ) evaluated the beneficial use support status within the JB & S Use Area. Owyhee River, and Deep and Pole creeks do not support the Idaho water quality standards (IDEQ Integrated Report 2010).

Preliminary Causal Factors
The limited data collected by BLM is inconclusive as to the primary causal agent. Current livestock grazing may, or may not be the reason standards are not met, as all of Deep Creek, and most of Pole Creek were in rated in PFC. In addition, sediment elevations in Deep Creek may originate from upstream sources on private land.

Information Sources
Idaho Department of Environmental Quality data (2010 Integrated Report), field inspections, water temperature dataloggers, thermograph data, solar pathfinder shade measurements and bacterial sampling. BLM electro-fishing data 2012), IDEQ's Upper Owyhee Subbasin Assessment and TMDL (2010).

Standard 8: Threatened and Endangered Plants and Animals

Desired Conditions

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.

Additionally, the following Bruneau Management Framework Plan (1983) objectives and decisions apply to achieving the desired conditions for this use area:

- 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.
- 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….

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

Wildlife

Pasture 8N (Mid-Spring/Early Summer Use)

Synopsis of Assessment Findings

Upland and riparian conditions were assessed for how the use area provided for special status wildlife species. Upland conditions in Pasture 8N were characterized at 14 RHE sites (all in 2004 and one revisited in 2012) and with 12 sage-grouse nesting assessments. Riparian conditions were assessed with PFC ratings at streams and wetland sites.

Upland vegetation condition was used to characterize habitat for nesting sage-grouse, pygmy rabbits, and big game. Upland vegetation in Pasture 8N showed little departure from reference conditions in the

majority of the sites sampled with RHEs. Likewise, all of the sites sampled for sage-grouse nesting rated as either suitable or marginal. The marginal sites were actually in good condition but the criteria for suitability are tiered to big sagebrush sites (Connelly et al. 2000) and those that ranked marginal were in low sagebrush sites. Exceptions to healthy upland conditions existed at a few sites proximate to water developments in this pasture.

Riparian condition is used to characterize habitat for sage-grouse during late summer and spotted frogs. In Pasture 8N, over half of the streams assessed and one spring were rated as PFC, while the remaining segments of stream and the remaining few springs assessed rated as FAR (see Standard 2). All of the evaluated segments of Big Springs Creek upstream of the Twin Bridges Exclosure and a 0.3 mile section of Battle Creek where spotted frogs have been observed rated FAR. Big Springs Creek is very important for sage-grouse during the late brood-rearing period and these areas have the potential to provide a larger area of forb-rich habitat for a more dispersed and healthier population of sage-grouse. To a lesser degree (due to the relative size of the wetland vegetation), the few springs that rated FAR also lessen the quality of late brood-rearing habitat for sage-grouse.

Evaluation Finding – Pasture 8N is:

_ Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
X Not meeting the Standard

Rationale for Evaluation Finding

Although the upland habitat in Pasture 8N is in good condition and contributes positively to nesting sage-grouse, pygmy rabbits, and big game, riparian areas along the FAR-rated sections of Big Springs Creek and 0.3 miles of Battle Creek exhibit diminished suitability relative to site potential. Habitat for late brood-rearing sage-grouse and spotted frogs is in degraded condition with threats to long term maintenance of the habitat. Also, the goal of MFP 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." Therefore, this pasture is not meeting the standard for wildlife.

Preliminary Causal Factors

Livestock and diversion of perennial spring flows in Big Springs Creek has contributed to the degraded conditions in the lower sections of the creek (see Standard 2 Evaluation). Livestock concentrations at the springs have resulted in modifications of the soil that has decreased the ability of the site to maintain water late into the summer and sustain wetland plant species.

Pasture 8S (Summer Use)

Synopsis of Assessment Findings

Upland conditions in Pasture 8S were characterized at 10 RHE sites (all in 2004 and one revisited in 2012) and with six sage-grouse nesting assessments. Riparian conditions were assessed with PFC ratings at streams and wetland sites and with 10 sage-grouse late brood-rearing assessments.

As with Pasture 8N, upland vegetation in Pasture 8S showed little departure from reference conditions at most of the sites sampled with RHEs, with one exception. Frying Pan Basin exhibited a detectable decrease in the amount of grass cover expected for the site. The sites sampled for sage-grouse nesting rated as either suitable or marginal. The marginal sites were actually in good condition but the criteria for suitability are tiered to big sagebrush sites (Connelly et al. 2000) so most of those that ranked

marginal consisted at least partially of low sagebrush habitat. One marginally rated site was proximate to a trailing area so was not a representative site.

All of the streams assessed in Pasture 8S (Battle Creek) and all but two of the springs assessed for PFC were rated as PFC. Two springs rated FAR. Of the 10 sage-grouse late brood-rearing assessments, all but one rated as suitable (seven) or marginal (two). Minor erosion and minimal forb abundance or diversity resulted in most of the areas with marginal or unsuitable ratings.

Evaluation Finding – Pasture 8S is:

X Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
_ Not meeting the Standard

Rationale for Evaluation Finding

All portions of Battle Creek and seven (of the nine) springs were in PFC and ranked suitable for sage-grouse late brood-rearing habitat. The propensity of good conditions at most of the late brood-rearing sites means that they would contribute to a viable sage-grouse population in the area, as well as benefit other wildlife in the pasture dependent on those riparian sites.

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 during April-May 2004-2013
- IDFG sage grouse historical lek database, 2003
- IDFG and BLM telemetry studies of sage grouse, 2002-2013
- Sage grouse habitat assessments in 2004, 2005, and 2012
- Idaho Fish and Wildlife Information System database
- General wildlife field observations in 2004, 2005, and 2012

Fish

Synopsis of Assessment Findings

Water temperatures in Big Springs and Battle Creeks are too warm to maintain a viable population of redband trout.

Evaluation Finding – Pasture 8N/8S is:

_ Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
X Not meeting the Standard

Rationale for Evaluation Finding

Water temperatures in Battle Creek, and all but the headwaters of Big Springs Creek on private lands, are too warm to maintain a viable population of redband trout.

Preliminary Causal Factors

To the extent that water quality impairment (temperature) is the result of historical livestock grazing, historical private land use practices, natural back-ground" heating, or combination of factors was not determined. However, aquatic habitat was in good to excellent condition in all segments of Battle Creek. Big Springs Creek often goes dry in the summer, and does not support a cold water fishery in the BLM managed segments.

Information Sources

Idaho Department of Environmental Quality data (2010 integrated Report), field inspections, water temperature data loggers, thermograph data, solar pathfinder shade measurements and bacterial sampling. BLM electro-fishing data 2012), IDEQ's Upper Owyhee Subbasin Assessment and TMDL (2010).

Plants

Pasture 8N (Mid-Spring/Early Summer Use)

Synopsis of Assessment Findings

There is one BLM special status plant known to occur in Pasture 8N of this Use Area. This species, Bach's downingia (*Downingia bacigalupii*), is listed as a Type 4 BLM Sensitive species. This annual species is found in drying mud of vernal pools, lakes, wet meadows, and stream banks. It has also been found in man-made structures such as reservoirs. In this use area it occurs in reservoirs that receive heavy use by livestock. The soils along the reservoirs are deeply pugged and plants trampled. This results in poor habitat conditions for this species.

Rangeland health assessments in the vicinity of the two populations showed slight to moderate departures from reference conditions for plant vigor. Reduced plant vigor in the adjacent uplands was attributed to active and historic pedestalling of plants which reduced vigor and reproductive capability.

Evaluation Finding – Pasture 8N is:

_ Meeting the Standard
_ Not meeting the Standard, but making significant progress towards meeting
X Not meeting the Standard

Rationale for Evaluation Finding

Pasture 8N was rated as not meeting the standard because of the low population counts, the trampled and pugged soils, and low overall plant vigor. It is unknown whether these plants were present prior to reservoir development. This species is not limited to reservoirs and often occurs in seasonally wet meadows and stream banks. Without knowing what occurred pre-reservoir, it is difficult to determine whether the reservoir created or degraded habitat for this species. Regardless, the habitat as it is now, does not meet the needs of the plant for long term persistence and vigor.

Preliminary Causal Factors

The reservoirs were created for livestock watering and have been functioning as water sources in 8N. Livestock induced damage to the soils and habitat for Bach's downingia is the cause for not meeting the standard.

Pasture 8S (Summer Use)

Synopsis of Assessment Findings

No SSP are known from Pasture 8S.

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.

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.*

_X__ 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.***