East Hammett #5 Allotment (01037)

DETERMINATION DOCUMENT

SECTION 1

___ 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 is required, complete section 2)

SECTION 2

1. Documentation of causal factors *(other than livestock grazing)*.

Five wildfires have burned 1,097 acres since 1957 (none of these fires burned the trend or assessment plots):

- Walker Fire (1985) - 377 acres between the East and West Forks of Cold Springs Creek;
- Cold Fire (2007) - 52 acres in the south east corner of the allotment; and
- Rye Grass (1987), Hot Tea (2010), and Stout (2012) fires – 669 acres on the west side of the allotment.

2a. Is it more likely than not that existing grazing management practices or levels of grazing use are significant factors in failing to achieve the Standards or conform to the guidelines? *(YES/NO) Provide rationale:*

Yes. The condition of the plant community has been altered by historic and past grazing use; however, current livestock management practices are not promoting recovery or improvement. Livestock grazing is currently authorized for 320 cattle from April 10 to June 30 for 863 Animal Unit Months (AUMs) and 314 cattle from October 1 to November 30 for 630 AUMs, annually. Although actual use reports are generally lacking prior to 2006, spring use averaged 852 AUMs and fall use averaged 154 AUMs between 2007 and 2011.

The spring/early summer use period coincides with the critical growth period of perennial bunchgrasses. When light (20-40%) grazing occurs yearly during this period, perennial grasses are generally able to recover growth, set seed, and show little impact. However, if moderate (41-60%) to heavy (61-80%) grazing during this period occurs on an annual basis, bunchgrasses cannot achieve adequate re-growth to set seed and replace carbohydrate root reserves.

The late fall/winter use period occurs during the dormant season for perennial grasses, which with light to moderate use levels has little effect on vigor and health of perennial grasses. However, the combination of spring and fall use more rapidly depletes carbohydrate root reserves, and few plants reach seed ripe/seed dispersal stages without being grazed. This type of use on a yearly basis eventually reduces the plants' ability to produce and set viable seeds, and to withstand unfavorable climatic conditions, such as severe winters or drought.
Over time, annual spring and fall grazing causes plants to become weaker and smaller, and they may eventually die. This opens the area up to exotic annual grass invasions which in turn

increase the probability of ignition and fire frequency. Ultimately, improper grazing practices contribute to larger, more severe, and more frequent disruptions, such as fire, which damage native plant communities, watersheds, riparian areas and wildlife habitat.

Utilization transects were conducted in 2006 to determine the amount of perennial bunchgrass biomass remaining at the end of the spring/early summer grazing period. One transect utilized the Landscape Appearance method, as there were too few perennial grasses to use the Key Species method. Utilization along this transect was calculated to be heavy, overall. The remaining transects measured utilization of key forage grasses. The average use from all transects was severe (81-94%) for Idaho fescue, heavy (68%) for bottlebrush squirreltail, light (35%) for bluebunch wheatgrass, and moderate (47%) for Thurber's needlegrass.

2b. Is there conformance with Idaho Guidelines for Livestock Grazing Management? *(YES/NO) If not, list the guidelines that are not in conformance and provide evidence:*

No. Livestock grazing management is not in compliance with the following guidelines:

Guideline 4 – Implement grazing management practices that provide periodic rest or deferment during critical growth stages to allow sufficient regrowth to achieve and maintain healthy, properly functioning conditions, including good plant vigor and adequate vegetative cover appropriate to site potential.

The current permit does not incorporate periodic rest or deferment during the critical growth period to allow sufficient regrowth to maintain healthy and vigorous perennial plants. Because none of the trend or assessment plots have burned, degradation is attributed to livestock grazing.

Guideline 5 – Maintain or promote grazing management practices that provide sufficient residual vegetation to improve, restore, or maintain healthy riparian-wetland functions and structure for energy dissipation, sediment capture, ground water recharge, streambank stability, and wildlife habitat appropriate to site potential.

Heavy utilization levels were frequently observed in riparian areas.

Guideline 7 – Apply grazing management practices to maintain, promote, or progress toward appropriate stream channel and streambank morphology and functions.

Areas of trampling, pugging, and bank sloughing were observed.

Guideline 8 – Apply grazing management practices that maintain or promote the interaction of the hydrologic cycle, the nutrient cycle, and energy flow that will support the appropriate types and amounts of soil organisms, plants, and animals appropriate to soil type, climate, and landform.

Invasive plants and low diversity of functional and structural groups is providing less than optimal conditions for adequate nutrient, energy and hydrologic cycling. Because none of the trend or assessment plots have burned, degradation is attributed to livestock grazing.

Guideline 9 – Apply grazing management practices to maintain adequate plant vigor for seed production, seed dispersal, and seedling survival of desired species relative to soil type, climate, and landform.

Species diversity is poor in the plant community evident by the lack of key understory species. Without adequate structural and functional species diversity, proper levels of nutrient and energy cycling does not occur to maintain a healthy and vigorous perennial plant community. Increasing exotic annual grasses result in native seedling mortality due to competition, and shorter fire return intervals that coincide with increased annual grasses leads to greater native plant mortality. Because none of the trend or assessment plots have burned, degradation is attributed to livestock grazing.

Guideline 12 – Apply grazing management practices and/or facilities that maintain or promote the physical and biological conditions necessary to sustain native plant populations and wildlife habitats in native plant communities.

Sage-grouse breeding habitat has been compromised by the amount of invasive exotic annual grasses and reduced levels of tall-stature perennial grasses. Because none of the trend or assessment plots have burned, degradation is attributed to livestock grazing.

/s/ *Tate Fischer* May 27, 2014

Authorized Officer: Tate Fischer **Date**
Four Rivers Field Manager

SUMMARY OF EVALUATION AND DETERMINATION

Check Box 1, 2, 3, 4, or 5 (Do not add data or explanatory remarks here.)	STANDARDS							
	1	2	3	4	5	6	7	8
1) Meeting the Standard					NA	NA	X	
2) Not Meeting the Standard, **but making significant progress towards**								
3) Not Meeting the Standard, current livestock grazing management practices **are not** significant factors								
4) Not meeting the Standard, current livestock grazing management practices **are** a significant factor	X	X	X	X				X
5) Not meeting the Standard, cause not determined								
Guidelines for Livestock Grazing								
6) Conforms with Guidelines for Livestock Grazing Management								No
7) If no, list the guidelines not in conformance: 4, 5, 7, 8, 9, and 12								