Clean Water Act Compliance Field Review - Grazing Activities – Caribou NF

Allotments: Bailey Creek C&H, Nounan C&H, & Stauffer Canyon S&G **Forest/District:** Caribou-Targhee NF, Montpelier RD

Date: 8/15/2006

Reviewers: Dennis Duehren (District Ranger); Heidi Heyrend, Brad Transtrum, & Jane Rushane (District Range); Walt Grows (Forest Range); Kara Kleinschmidt (S.O. Soils); Louis Wasniewski, Brad Higginson, & Jim Laprevote (S.O. and District Hydrology); Jeff Bruggink (Regional Soils Scientist); and Rick Hopson (Regional Hydrologist); Christine Waite (Idaho DEQ); Bonnie Lewis (District)

Grazing System: Adaptive Management

Unit(s) Reviewed:	**On Date(s):**	**Off Date(s)**
Bailey Creek Area	Rested	Rested
North Skinner Creek (Nounan Allotment)	6/10	9/10
Sherman Peak/ Upper Co-op Creek area (Stauffer)	6/25	9/15

6TH Level Watersheds: 160102010101 Alexander Reservoir
160102010301 Skinner/Co-op Creek

Streams Examined: Bailey Creek
North Skinner Creek, Skinner Creek, an Co-op Creek Headwaters

Geology: Bailey Creek riparian area: mixed alluvium derived from dolomite, limestone, and quartzite. Bailey Creek uplands: dolomite and quartzite.

North Skinner Creek and upper Co-op Creek areas: limestone, quartzite, and dolomite.

Major Soils and Community Types:

Bailey Creek riparian: Map unit 60: Wallrock – Farlow Families association (0-10% slopes). Narrow, wet, riparian bottomlands. Overstory: Aspen and Birch. Shrubs: willow & choke cherry.

Bailey Creek uplands: Map unit 40 – Dranyon – Parkay – Swede Families association (10-25% slopes). Rangeland vegetation: Mountain big sagebrush and mountain maple. Aspen/Douglas Fir.

North Skinner Creek: Map unit 870: Blaine – Judkins – Swede Families complex (10-30% slopes). Mixed aspen/conifer, conifer/shrub, and sagebrush/grass.

Sherman Peak/upper Co-op Creek nested frequency site: Map unit 152: Farlow – Targhee – Coski Families association, (25-50% slopes). Conifer/aspen and aspen/brush/grass.

Notes: We conducted the review during the 2006 Regional Office soil and water assistance trip. The Forest completed NEPA on these allotments as part of the North Bear River Range Allotment Management Plan (AMP) Revisions EA in 2002.

Bailey Creek Area: Bailey Creek was rated as "functional at risk" during the NEPA process (prior to 2002). As part of an adaptive management strategy, the Bailey Creek unit will be rested until the stream meets the desired future condition described in the decision notice.

As a result of rest, the riparian area has improved from early seral in 2000 to mid seral stage in 2005. Grazing is expected to resume in this unit in 2007.

- The Bailey Creek area was previously grazed by 175 head from 6/11 to 8/25.
- When the unit was grazed in the past, several residents from the adjacent subdivision expressed concerns regarding cattle.
- Future adaptive management strategies include early season grazing (once grazing is resumed). This strategy is expected to decrease the threat of weeds in the area, improve upland conditions in areas of abundant mule's ear, and maintain Bailey Creek's upward trend.

North Skinner Creek Area (Nounan Allotment): Common use was removed from this area in 1960. During 2000, the following PFC ratings were observed:

- Skinner Creek = PFC
- North Skinner Creek = Functional at Risk – high range; trend not apparent
- South Skinner Creek = Functional at Risk – Low range; trend not apparent

The Forest recently increased the stubble height standard from 4 inches to 6 inches. As a result, conditions are improving on North Skinner Creek. Between 2002 and 2006, the North Skinner Creek riparian improved from a mid-seral state (2002) to late seral (2006). Greenline stability also improved from a rating of "6' in 2002 to "8.4" in 2006. The 2006 riparian grazing monitoring results are shown below

Stubble Height	Bank Alteration	Bank Stability	Bank Cover	Saplings Young	Mature	Dead	Hydric	Greenline Stability	Ecological Status	Wetland Site Rating	Greenline Width
10 in	24%	84%	79%	48%	48%	79%	79%	8.38	Late Seral	Good	10 ft

Sherman Peak/upper Co-Op Creek area (Stauffer Allotment): We visited the nested frequency site, which has been correlated to a previous Parker 3-Step site. The site is rated as early seral and functioning at risk with an upward trend (2005). The desired ground cover is 80%. The district measured ground cover at 67% in 2005, which is up from 42% in 1956 (Parker 3-Step). In 1979 ground cover was 84%. Some of the decrease from 1979 to 2005 can be explained by the location of the nested frequency within the larger Parker 3-Step (i.e. nested frequency sites occupy only one arm of the Parker 3-Step; c616). Also, a recently reseeded area was not sampled within the Nested Frequency. The District will read the nested frequency again in 2010, which will allow for a trend comparison at that time.

North Canyon S&G Allotments: We drove through these allotments and observed mid-day bedding of sheep within the aquatic influence zone (AIZ). This practice created small areas of low ground immediately adjacent to streams. Although the areas are minor in size, they are a chronic source of fine sediment delivery to stream channels. The district immediately contacted the permittee and issued an AIZ bedding warning letter. Further direction and requirements will be provided in the Annual Operating Instruction for next season.

Photo 1. Bailey Creek at stream crossing.

Photo 2. Nested frequency site near Sherman Peak/upper Co-op Creek.

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Use the Following Rating Guide and Definitions to Score Each Practice

Implemented	Score
Exceeds objective of practice	5
Meets objective of practice	4
Minor departure from practice	3
Major departure from practice	2
Gross neglect of practice	1

Effective	Score
Improved protection of soil and water over pre-project conditions	5
Adequate protection of soil and water	4
Minor and temporary impacts on soil and water	3
Major and temporary, or minor and prolonged impacts on soil and water	2
Major and prolonged impacts on soil and water	1

Term	Definition
Adequate	Small amount of material eroded; material does not reach ephemeral draws, intermittent and perennial streams, or wetlands
Minor	Erosion and delivery of material to ephemeral draws but not intermittent and perennial streams, or wetlands
Major	Erosion and subsequent delivery of sediment to ephemeral draws, intermittent and perennial streams, or wetlands
Temporary	Impacts expected to last one year or less or no more than one runoff season
Prolonged	Impacts expected to last more than one year or one runoff season

Project Specific Measures from the DN & FONSI for the North Bear River Range AMP Revisions EA – 2002

Project Specific Measure	Implemented	Effective	Notes
Within the **Bailey Creek C&H Allotment**, a riparian exclosure fence with 4 water-gaps at ford areas (hardened crossings) would be constructed from the Forest Boundary to the Allotment Boundary (DN, pg 6). Decrease use by 151 head months and increase allotment size by 1,110 acres. Create a riparian pasture by fencing off Bailey Creek from the Forest boundary to the allotment boundary, with occasional watering fords (DN, pg 4).	N/A	5	This exact measure was not implemented. The unit is being rested rather than building an expensive exclosure. The permitee has been moved to another allotment until desired conditions are reached. As discuss above in the narrative, conditions are moving toward desired conditions
Within the **Nounan Allotment**, an enclosure fence would be constructed around the Pearl Creek Spring (less than 1/8 mile of fence) (DN, pg 6).	4	4	The fence was constructed and has been effective at excluding cattle.
Nounan C & H Allotment: Maintain the head months and increase the size of the allotment by 1,662 acres (DN, pg 4).	4	4	Allotment boundary change in the part 3 of the Term Grazing Permit.
Nounan C & H Allotment: Construct an additional water catchment pond and drift fence. This would further assist with cattle distribution (DN, pg 4).	3	4	This measure has not been implemented yet. Temporal scope of the project is the next fifteen years. RBF priorities included noxious weed spraying.
Stauffer Canyon S & G Allotment: Once-over-light grazing (30%) (DN, pg 4).	5	5	Forage utilization standards were included in Part 3 of the Term Grazing Permit. Range inspections document compliance with the standards.

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Project Specific Measures from the DN & FONSI for the North Bear River Range AMP Revisions EA – 2002

<table>
<tr><th>Project Specific Measure</th><th>Implemented</th><th>Effective</th><th>Notes</th></tr>
<tr><td>North Canyon S & G Allotment: The size of the allotment would be increased by 4,197 acres (area removed from 8-mile C&H) and a water catchment pond (DN, pg4).</td><td>4</td><td>4</td><td>Allotment boundary change in the part 3 of the Term Grazing Permit. Water catchment pond was not implemented. Temporal scope of the project is the next fifteen years. RBF priorities included noxious weed spraying.</td></tr>
<tr><td>Riparian forage utilization standards. See table 3.5 in the EA p. 3-17 for stream ratings as of 2001 (DN, pg5).
<table>
<tr><th rowspan="2">Riparian Forage Utilization</th><th colspan="3">PFC Rating of Riparian Area (Lotic)</th></tr>
<tr><th>PFC</th><th>Functioning @ Risk</th><th>Non-Functioning</th></tr>
<tr><td>% Herbaceous Utilization</td><td>50</td><td>40</td><td>30</td></tr>
<tr><td>Stubble Height (inches)</td><td>4</td><td>6</td><td>8</td></tr>
<tr><td>% Bank Disturbance</td><td>20</td><td>20</td><td>20</td></tr>
<tr><td>% Browse Utilization</td><td>50</td><td>50</td><td>50</td></tr>
<tr><td>% Ground Cover</td><td>80</td><td>80-90</td><td>85-95</td></tr>
</table></td><td>4</td><td>5</td><td>Forage utilization standards were included in Part 3 of the Term Grazing Permit and the Annual Operating Instructions. The riparian grazing monitoring conducted along North Skinner Creek on the Nounan allotment demonstrate improvements in seral stage.</td></tr>
<tr><td>Upland Forage Utilization (DN, pg5).
<table>
<tr><th rowspan="2">Upland Forage Utilization</th><th colspan="3">Upland Area Type</th></tr>
<tr><th>Critical Winter Range</th><th>Winter Range</th><th>Non-Winter Range</th></tr>
<tr><td>Grass & Herbaceous (% dry weight)</td><td>35</td><td>45</td><td>45</td></tr>
<tr><td>Shrubs (% annual leader growth)</td><td>10</td><td>20</td><td>35</td></tr>
<tr><td>% Ground Cover</td><td>60-70</td><td>60-70</td><td>60-70</td></tr>
</table></td><td>4</td><td>4</td><td>Forage utilization standards were included in Part 3 of the Term Grazing Permit and the Annual Operating Instructions.</td></tr>
<tr><td>Adaptive Management practices will be used in the implementation processes, with the following principles:
1. A clear description of the desired outcome to be achieved by implementation of the decision.
2. A clear description of monitoring to be used to evaluate if implementation is leading to the desired outcome.
3. If prescribed management fails to result in the desired outcome, alternative strategies will be developed by the IDT, and management will be "adapted" until the desired outcome is achieved (DN, pg 6).</td><td>4</td><td>5</td><td>The Forest used adaptive management to improve conditions along Bailey Creek. Specific recommendations were modified, but the outcome has been the same: movement toward desired conditions. The Bailey unit is being rested instead of constructing an exclosure.</td></tr>
<tr><td>A monitoring plan would be developed using FSH 2209 techniques and protocol, implemented and followed to identify the effectiveness of planned activities. Specific locations or “key areas” would be identified for upland areas (this would include existing long-term trend study locations displayed in Chapter 3). The plan would include implementation and effectiveness monitoring (DN, pg 7).</td><td>4</td><td>4</td><td>This is included in the AMP. We visited the key area on North Skinner Creek of the Nounan Allotment.</td></tr>
</table>

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Applicable Caribou NF Revised Forest Plan Standard and Guidelines

<table>
<tr><th>Element</th><th>Standards and Guidelines</th><th>Implemented</th><th>Effective</th><th>Notes</th></tr>
<tr><td>Soils – All Ecosystems</td><td>Suitability for resource management activities shall be disclosed in the site-specific analysis. (S)</td><td>4</td><td>4</td><td rowspan="2">These measures were analyzed and/or completed in the North Bear River Range AMP Environmental Assessment.</td></tr>
<tr><td>Soils – All Ecosystems</td><td>Resource developments and utilization should be restricted to lands identified in the Soil Resource Inventory as being capable of sustaining such impacts. (G)</td><td>4</td><td>4</td></tr>
<tr><td rowspan="2">Soils – All Ecosystems</td><td rowspan="2">Maintain ground cover, microbiotic crusts, and fine organic matter that would protect the soil from erosion in excess of soil loss tolerance limits and provide nutrient cycling. (G)</td><td>4</td><td>4</td><td>Majority of all areas examined.</td></tr>
<tr><td>3</td><td>3</td><td>Mid-day bedding within AIZ was observed in Young and North Canyon S&G Allotments</td></tr>
<tr><td>Soils – All Ecosystems</td><td>Detrimental soil disturbance such as compaction, erosion, puddling, displacement, and severely burned soils caused by management should be limited or mitigated to meet long-term soil productivity goals. (G)</td><td>4</td><td>4</td><td>These measures were analyzed and/or completed in the North Bear River Range AMP Environmental Assessment.</td></tr>
<tr><td>Watershed and Riparian Resources</td><td>Proposed actions analyzed under NEPA should adhere to the State Nonpoint Source Management Plan to best achieve consistency with both Sections 313 and 319 of the Federal Water Pollution Control Act. (G)</td><td>4</td><td>4</td><td>Implementation and monitoring of BMPs.</td></tr>
<tr><td>Grazing Management – Range Resources</td><td>Stock driveways should be eliminated as opportunities occur. (G)</td><td>N/A</td><td>N/A</td><td>Stock are trailed along the roads in these allotments.</td></tr>
<tr><td>Grazing Management – Range Resources</td><td>Where water is developed at springs and seeps, return water to point of origin after livestock leave unit, if possible. (G)</td><td>N/A</td><td>N/A</td><td>Water catchment ponds are used in these allotments.</td></tr>
<tr><td>Grazing Management – Range Resources</td><td>Seeding or establishment of monocultures should be avoided, and efforts should be made to establish and/or maintain a variety of desirable grass, forbs, and shrub species.</td><td>4</td><td>4</td><td>Allotment is lightly stocked in order to increase diversity.</td></tr>
<tr><td>Grazing Management – Forage Utilization</td><td>Apply upland forage utilization levels to all allotments as shown below, unless determined through development of site-specific standards in the allotment management planning process. These guidelines apply to native and desirable non-native key plant species as recorded at the end of the growing season. (G)
<table>
<tr><th>Vegetation Component</th><th>Allowable % Utilization</th></tr>
<tr><td>Grasses & Herbaceous Species (% dry weight)</td><td>35-55%</td></tr>
<tr><td>Shrubs (% annual leader growth)</td><td>25-35%</td></tr>
</table></td><td>N/A</td><td>N/A</td><td>More specific utilization standards are listed above in the EA/DN measures.</td></tr>
<tr><td>Grazing Management – Livestock Grazing Permits</td><td>Permitees may be allowed motorized access to maintain or develop range improvements assigned in their grazing permits or for other authorized administrative activities. AMPs and AOIs should include direction to comply; travel permits should be issued to authorize this use. (G)</td><td>4</td><td>4</td><td>Did not notice any concerns.</td></tr>
</table>

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<tr><th>Element</th><th>Standards and Guidelines</th><th>Implemented</th><th>Effective</th><th>Notes</th></tr>
<tr><td>Aquatic Influence Zone (AIZ) – General Riparian Area Management</td><td>Use herbicides, pesticides, and other toxicants and chemicals only as needed to maintain desired AIZ attributes. (G)</td><td>4</td><td>4</td><td>Chemicals are properly used to control weeds in the Bailey Creek area.</td></tr>
<tr><td>AIZ – Grazing Management</td><td>Use the AIZ grazing standards below until more site-specific standards are implemented using the Caribou Riparian Grazing Implementation Guide. If current AOIs have more stringent requirements they shall be used however. Generally, the factor most critical for maintaining riparian and stream channel characteristics shall be used. . These guidelines apply to native and desirable non-native key plant species as recorded at the end of the growing season. (S)
<table>
<tr><th rowspan="2">Parameter</th><th rowspan="2">Location Measured</th><th colspan="3">Condition of Riparian (Lotic) Area</th></tr>
<tr><th>PFC</th><th>Functioning at risk</th><th>Non-Functioning</th></tr>
<tr><td rowspan="2">% Herb. Species Utiliz</td><td>Greenline</td><td>45%</td><td>35%</td><td>30%</td></tr>
<tr><td>AIZ</td><td>55%</td><td>45%</td><td>35%</td></tr>
<tr><td>% Woody Spp Utiliz.</td><td>-</td><td>45%</td><td>40%</td><td>30%</td></tr>
<tr><td>Stubble Height</td><td>Greenline</td><td>4 in.</td><td>6 in.</td><td>6 in.</td></tr>
<tr><td>% Bank Disturbance</td><td>Cumulative</td><td>30%</td><td>25%</td><td>20%</td></tr>
</table></td><td>4</td><td>4</td><td>Other utilization standards are listed above in the EA/DN measures.</td></tr>
<tr><td>AIZ – Grazing Management</td><td>The most current version of the Caribou Riparian Grazing Implementation Guide shall be used for the primary source of direction for grazing in Forest riparian areas and shall be incorporated during allotment management planning. (S)</td><td>4</td><td>4</td><td></td></tr>
<tr><td>AIZ – Grazing Management</td><td>Where feasible, relocate or close existing livestock handling facilities that will not maintain progress towards desired AIZ attributes. (G)</td><td>N/A</td><td>N/A</td><td></td></tr>
</table>

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R1/R4 FSH 2509.22, Chapter10 - Soil and Water Conservation Practices

Practice	Objective and Implementation	Implemented	Effective	Notes
17.01 – Range Analysis, Allotment Management Plan, Grazing Permit System, and Permittee Operating Plan	To maintain and protect soil and water resources through sustained forage production and managed multiple use of range forage. Implementation: • Allotment is NEPA sufficient (if yes, give date) and AMP is sufficient (if yes, give date) • Preparation and approval of AMP • Revise AMP as needed • AOI prepared or revised (as needed) annually to adjust for current allotment conditions and trends and to incorporate special instructions • Permittee carries out the plan • Corrective action is taken if permitee does not comply with permit conditions designed to protect soil and water resources.	3	4	NEPA was completed in 2002. Majority of all allotments examined look good with upward trends. Backlog of AMP to be completed. AMP completed on Stauffer. The intent of this measure is being met by including it in the Term grazing permit and AOI.
		3	3	Mid-day bedding within AIZ was observed in North Canyon S&G Allotments.
17.02 – Controlling Livestock Numbers and Season of Use	To maintain and protect soil and water resources through management of livestock numbers and season of use. Implementation: • Proper stocking rates and season of use specified in the grazing permit. • Annual field checks are made to identify needed adjustments: range readiness evaluations, livestock counts, forage & browse utilization, and periodic assessments of rangelands (soil and veg. trends) • Permit is modified, cancelled, or suspended if needed.	4	4	Range inspections verified compliance.
17.03 – Controlling Livestock Distribution	To maintain and protect soil and water resources, including riparian areas though controlling livestock distribution. Implementation: Proper techniques are used to reduce the impact on sensitive or naturally overused areas. Techniques may include: • Fence construction and use of seasonal or pasture system management • Water developments in areas that receive little use and closures of water developments when proper use is achieved. • Other Range improvements. • Riding & herding to shift livestock locations • Placing salt or supplements away from water in forage areas with light grazing use to attract livestock • Moving livestock when prescribed utilization levels are reached. • Goats and sheep – open herding, limited trailing, and use of new bed grounds nightly. Direction is incorporated into the AMP and AOI. The AOI reflects current allotment conditions and vegetative trends.	4	4	NEPA was completed in 2002. Majority of all allotments examined look good with upward trends.
		3	3	Mid-day bedding within AIZ was observed in North Canyon S&G Allotments. AIZ bedding on Stauffer S&G. An AIZ bedding Warning letter was issued for the Stauffer Allotment in 2006 (see 2230 file).

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R1/R4 FSH 2509.22, Chapter10 - Soil and Water Conservation Practices

Practice	Objective and Implementation	Implemented	Effective	Notes
17.04 – Rangeland Improvements	To maintain and protect soil and water resources the use of rangeland improvements. Implementation: Improvements are recognized in the allotment planning process. Improvements are used to improve management and restore or improve forage quality, quantity, or availability. Improvements may include: • Rest and/or deferment through rotation grazing, fencing, or lighter grazing use by changing the grazing season, kind, class, or permitted number of livestock. • Stream stabilization projects • Reseeding, fertilization, and/or other non-structural improvements • Water developments • ID teams provide consultation on improvements and they are constructed in manner that protects surface and ground water quality	4	4	

R4 Soil Management Handbook, FSH 2509.18 – Chapter 2 – Soil Quality Monitoring

Practice	Objective and Implementation	Implemented	Effective	Notes
Detrimental Soil Disturbance[1]	No more than 15% of an activity area should have detrimentally disturbed soil after the completion of all management activities. In other words, at least 85% of an activity area should be in a non-detrimentally disturbed condition.	4	4	This measure was analyzed during the North Bear River Range AMP Environmental Assessment.
Effective Ground Cover	The minimum effective ground cover, following the cessation of disturbance in an activity area, should be sufficient to prevent detrimental erosion. Detrimental erosion includes erosion rates that cause long-term productivity losses from an activity area or soil losses that are beyond those acceptable for the activity area. Minimum amounts of ground cover necessary to protect a soil from erosion are a function of soil properties, slope gradient and length, and erosivity (precipitation factor).	4	4	This measure was analyzed during the environmental assessment. Adaptive management grazing strategy is being implemented.

[1] Discuss the proper scale of the activity area (e.g. allotment, pasture, riparian areas ….). Activity Area is define in the handbooks as "an area impacted by a land management activity, excluding specified transportation facilities, dedicated trails, and mining excavations and dumps. Activity areas include such areas as: harvest units within timber sale areas and prescribed burn areas. Riparian and other environmentally sensitive areas may be monitored and evaluated as individual activity areas within larger management areas. It is recommended to describe the Activity Area for soil resources within planning and project implementation documents."