Marshall Mountain and Bear Pete Allotments Amendment to the Biological Assessment for the Potential Effects of Managing the Payette National Forest in the South Fork Salmon River Section 7 Watershed on Snake River Spring/Summer Chinook Salmon, Snake River Steelhead, and Columbia River Bull Trout, and Biological Evaluation for Westslope Cutthroat Trout

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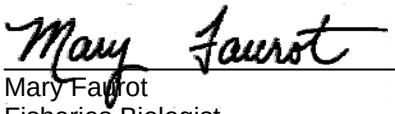
Prepared by:



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September 8, 2008
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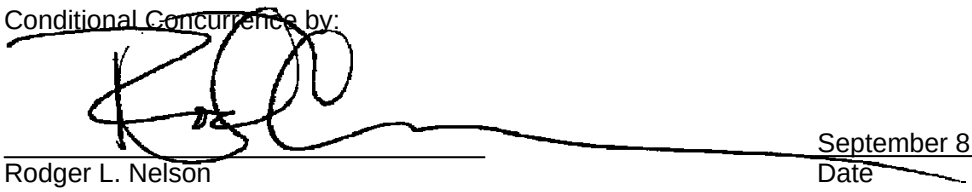

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This amends the South Fork Salmon River Biological Assessment (BA) for the Potential Effects of Managing the Payette National Forest in the South Fork Salmon River Section 7 Watershed on Snake River Spring/Summer Chinook Salmon, Snake River Steelhead, and Columbia River bull trout and Biological Evaluation for Westslope Cutthroat Trout (Faurot and Burns 2007).

In the Biological Assessment (BA) for the Potential Effects of Managing the Payette National Forest in the South Fork Salmon River Section 7 Watershed on Snake River Spring/Summer Chinook Salmon, Snake River Steelhead, and Columbia River Bull Trout and Biological Evaluation for Westslope Cutthroat Trout (Faurot and Burns 2007[1]), the determination of effects for sheep grazing in the Marshall Mountain and Bear Pete allotments was **May Affect, Not Likely to Adversely Affect** (NLAA) for Snake River Spring/Summer Chinook salmon, Snake River steelhead, and Columbia River bull trout. The rationale for the determination is provided in the BA on page 133 (Faurot and Burns 2007).

For these allotments, the BA states:
p. 67: "The west side of the Lake Creek meadows are closed to all livestock use. The meadow area on the east side of Lake Creek is open to grazing, limited to the time livestock are using Three Mile corrals. No watering or bedding is authorized on the east side of Lake Creek. Crossing of Lake Creek is authorized on bridges. The Nethker and Three Mile Corrals are located on this allotment. Both are in the Secesh subwatershed. The use of the shipping corrals is alternated bi-annually."

p. 120: " Avoidance of access or other activities that may disturb redds or other reproductive behavior will prevent trampling of eggs and adverse effects on spawning or staging." and
"If future monitoring (range monitoring, MIS monitoring) indicates a degrading trend or the presence of sheep in the vicinity of spawning areas, grazing practices will be modified to avoid more than negligible effects."

In September 2007 and July 2008, Nez Perce Tribe fisheries personnel observed several hundred sheep on and near redds in Lake Creek, and in 2007 on the west side of Lake Creek, near Threemile Corral. In the areas where the sheep crossed, there could have been 30 Chinook salmon redds in a high fish volume year (personal communication with Jerry Lockhart, Nez Perce Tribe fish biologist, and Mary Faurot, Payette NF fish biologist, March 20008). Two redds were definitively observed to be trampled, and and additional ten redds could have also been influenced by bank erosion, disturbance due to herd movement, urine/feces exposure, and/or possible trampling.

This is not consistent with what has been described in the BA (Faurot and Burns 2007) and with what has been approved for livestock management in that area. To avoid this in the future, the Payette NF proposes to change the action for the Marshall Mountain and Bear Pete allotments to permit shipping from Nethker Creek corral only, and to not permit shipping from Threemile Corral. This would avoid direct take of anadromous fish, because Nethker Creek is not known to support anadromous fish.

Nethker Creek does support bull trout. During shipping from Nethker corrals, sheep are allowed to wander the unfenced corral area, approximately 50 acres, and are not prevented from using the stream for watering. It is likely that resident bull trout spawn in Nethker Creek, but it is not known whether migrants use the stream. Essentially all of the streams in the area support bull trout, and watering away from Nethker Creek is seen as impractical by range manager Pete Grinde (Level 1 meeting notes April 30 2008).

[1] Faurot, M.; Burns, D.C. 2007. Biological assessment for the potential effects of managing the Payette National Forest in the South Fork Salmon River Section 7 Watershed on Snake River Spring/Summer Chinook Salmon, Snake River Steelhead, and Columbia River Bull Trout and biological evaluation for westslope cutthroat trout. Volume 28. Ongoing and New Actions. Unpublished biological assessment. McCall, ID: U.S. Department of Agriculture, Forest Service, Payette National Forest. 299p.

A general description of grazing effects on fish habitat, including stream bank trampling, is provided on page 85 of Zurstadt and Burns (2007). Gregory and Gamett (2008[2]), documented cattle trampling of simulated bull trout redds within the Little Lost River drainage in Idaho. During a 14-21 day grazing period 15-83% of the simulated redds were impacted and the number of simulated bull trout redds trampled varied with cattle stocking intensity and the characteristics of the site. Ballard and Krueger (2005[3]) documented cattle trampling of Chinook salmon redds in Northeastern Oregon. It is clear that trampling of salmonid redds can occur; however the rate that eggs or alevins are killed, and the population level effects are not well understood. The potential for harassment of bull trout by sheep exists, but literature describing studies of these interactions or the effects of these interactions could not be found.

Monitoring on the Bear Pete and Marshall Mountain allotments has provided increased evidence that the Annual Operating Instructions are only partially effective at excluding sheep from salmon, steelhead, and bull trout habitat. The number of sheep that have been documented interacting with salmon and redds within Lake Creek in 2007 and 2008 is far less than the 1,280 cow calf pairs that had access to simulated bull trout redds in Gregory and Gamett's study area. Therefore, the likelihood of redd trampling in Nethker Creek is substantially less than what Gregory and Gamett documented. Data is not available to document bull trout population trends in Nethker Creek.

In summary, the likelihood of sheep adversely affecting bull trout by trampling bull trout eggs or alevins, or disturbing bull trout (harassment) before the Biological Assessment determination expires in December 31, 2017 is low, but not negligible. Therefore, a determination of May Affect, Likely to Adversely Affect would have been more appropriate for bull trout in the aforementioned BA. There are not likely to be significant population level effects to bull trout from harassment or trampling.

Recommendations:

The Payette NF will continue to seek more effective mitigations to try and avoid take as required by the Payette NF LRMP standard TEST25: “Mitigate, through avoidance, the adverse effects of livestock access or activities that may result in trampling of redds or disturbance of spawning or reproductive staging of ESA listed fish species”. The following recommendations could reduce the amount and duration of interactions between sheep and bull trout. The goal of implementing the recommendations is to reach a point where adverse effects are not likely to occur.

- During the 2008 grazing season follow the mitigations provided in Zurstadt and Burns (2007).
- Monitor interactions between sheep and bull trout, such as identifying specifically where the sheep access the stream, and where specific fish habitats are located.
- Continue to look for suitable spots for temporary corrals other than Threemile or Nethker corrals.
- Determine the feasibility of dropping trees, or fencing along likely watering areas along the stream to discourage sheep use of likely bull trout spawning areas
- Determine the feasibility of providing water in tanks or troughs that is transported into the shipping area or piped from Nethker Creek
- Look for suitable methods to better detect actual trampling incidents and monitor frequency.

[2] Gregory, J.S., and B.L. Gamett. 2008. Cattle trampling of simulated bull trout redds. *In press*. North American Journal of Fisheries Management.

[3] Ballard, T. M., and W. C. Krueger. 2005. Cattle and salmon II: interactions between cattle and spawning spring Chinook salmon (*Oncorhynchus tshawytscha*) in a northeastern Oregon riparian ecosystem. Rangeland Ecology and Management 58:274-278.