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Department of
Agriculture

Forest
Service

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Date: August 7, 2009

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Mr. Barry Thom, Acting Regional Administrator
National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, WA 98115-6349

Mr. Edward Shepard, State Director
US Bureau of Land Management
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Portland, OR 97204-3440

Ms. Mary Wagner, Regional Forester
USDA Forest Service
PO Box 3623
Portland, OR 97208-3623

Regional Executive Team Members:

This letter is to request your assistance as per the Streamlining Consultation Procedures¹ under Section 7 of the Endangered Species Act. Enclosed, please find an elevation package from the Malheur National Forest (MNF) related to consultation for the MNF Administration of Grazing Allotments within the Biological Opinion for 2007-2011 (NMFS number 2007/01290) as well as ongoing consultation for the MNF administration of livestock grazing allotments. The Malheur National Forest requests your collective guidance to resolve one discrete issue presented herein:

USFS

(1) Is 10% bank alteration utilizing the Multiple Indicator Monitoring a valid term and condition of the Incidental take statement for the proposed grazing strategy.

The Malheur National Forest has developed a detailed timeline that will allow completion of consultation prior to cattle turnout in 2010. This timeline requires our receipt of your advice regarding the elevated issues by no later than September 25, 2009, if possible. Thank you for your consideration of this request.

Sincerely,

DOUG GOCHNOUR
Forest Supervisor

Enclosure

cc: Steven M Namitz, Carole Holly, Michael L Tatum, Tom Friedrichsen

¹ FS, NMFS, BLM, and USFWS. 1999. Streamlining Consultation Procedures under Section 7 of the ESA. Elevation of Issues. <http://www.blm.gov/or/esa/procedure.htm>. July.



Attachment 5c
**Example of Optional Outline for
Level 2 Team Elevation to Regional Executive Team**

Forest/District (Action Location): Malheur NF

Date: 8/4/2009

Action Name: Bank Alteration

Type of Activity: Grazing

I. Background: The Malheur National Forest (MNF) is elevating the issue of bank alteration for the reasons listed below and supported by the Action Agencies position statement found in appendices.

II. Issues Being Elevated:

(1) Is 10% bank alteration utilizing the Multiple Indicator Monitoring a valid term and condition of the Incidental take statement for the proposed grazing strategy.

III. Recommended Course of Action (or alternatives): See enclosures for recommendations.

IV. Enclosures:

1. MNF and Prineville BLM Position Statement

V. Date Response Needed: To expedite the resolution of these issues, the Level 2 Team requests your guidance by September 25, 2009. Thank you for your attention to this matter.

VI. Executive Team Issue is Being Elevated to:

1. Ms. Robyn Thorson, Regional Administrator FWS
2. Mr. Barry Thom, Acting Regional Administrator NMFS
3. Edward Shepard, State Director BLM
4. Ms. Mary Wagner, Regional Forester FS

VII. Level 2 Team:

1. Gary Miller FWS
2. Spencer Hovekamp NMFS
3. Debbie Henderson-Norton Prineville, BLM
4. Doug Gochmour MNF
5. Kevin Martin UNF
6. Steve Ellis WWNF
7. Dave Henderson Vale, BLM

Enclosure 1.

**Malheur National Forest And Prineville BLM Position Statement
Elevation of Streambank Alteration Issue to Level 2 Team**

Prepared by Tom Friedrichsen, Chance Gowan, Steve Namitz, Jeff Shinn, Jimmy Eisner

April 1, 2009

INTRODUCTION

Under the ESA Consultation Streamlining Memorandum of Understanding as revised in July, 1999, the Malheur National Forest (MNF) is elevating issues related to streambank alteration to the Level 2 Team with a recommendation that the Technical Team be consulted to resolve the issues. The following issue statements reflect the MNF position on the streambank alteration indicator as it has been used as a Term and Condition as well as describing the extent of take in the Incidental Take Statement (ITS) in the May 23, 2007 Biological Opinion (BiOp)¹ for Mid Columbia River steelhead for 13 grazing allotments on the Blue Mountain Ranger District of the Malheur National Forest.

During the 2007 formal consultation on these 13 grazing allotments, the Federal Agencies were unable to reach consensus on streambank alteration Terms and Conditions and the measurement by which the amount or extent of "take"² of the species would be the indicator for the ITS. As a result, NOAA issued Terms and Conditions in the final BiOp for 10 of 13 allotments that were significantly different than what was analyzed as proposed actions in the Biological Assessments. In addition, the ITS contains two indicators – one for direct take (redd trampling) and the other for habitat alteration (greater than 20% streambank alteration). The redd indicator is easily achieved by not allowing livestock grazing in critical spawning areas or by limiting the numbers of livestock and the amount of time the livestock graze adjacent to the streams during spawning season. The streambank alteration indicator is flawed for a number of reasons as described below.

The MNF believes the streambank alteration issues are technical and scientific in nature, and recommends the issues be presented to the Regional Technical Team for review and resolution.

ISSUES

Issue #1: *The streambank alteration indicator and associated requirements³ within the BiOp and ITS directly conflicts with the Interagency Monitoring Protocols produced by Interagency Implementation Team (IIT) and Burton et al. (2007) as developed for PACFISH/INFISH Biological Opinions. In addition, current scientific literature does not support using streambank alteration as a stand alone indicator for either Terms and Conditions or for the determination of "take".*

Issue #2: *The BiOp and Terms and Conditions implementing Reasonable and Prudent Measures to avoid or minimize take with requirements of a 10% streambank alteration endpoint indicator for 10 of the 13 allotments significantly modifies the Malheur National Forest's proposed actions assessed in each of the grazing allotment Biological Assessments. The modifications to the streambank alteration requirement causes the agency and permittee to reconsider and revamp the proposed actions including livestock numbers, move and use indicators, as well as seasons of use. In addition, the modified streambank alteration indicator causes unwarranted and*

¹ National Oceanic and Atmospheric Administration Fisheries (NOAA Fishery) produced the Biological Opinion based on the Forest Service's request for formal consultation with the Endangered Species Act and the submission of 13 Biological Assessments, one for each grazing allotment on the Blue Mountain Ranger District of the Malheur National Forest.

² Under 50CFR part 222 the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." (16 U.S.C. 1532(19)). Further, the term "harm" is defined to include any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife.

³ Bank alteration move trigger and endpoint indicator on the Dixie, Fox, and Seneca/Sugarloaf allotments are 20% alteration. Bank alteration move trigger and endpoint indicator on the Camp Creek, Deadhorse/Hanscombe/Fields Peak, Hamilton/King, Long Creek Lower Middle Fork, Mount Vernon/John Day/Beech Creek, Murderers Creek, Roundtop, Slide Creek, and Upper Middle Fork Allotments are 10% alteration. The habitat measure of 20% bank alteration is considered to be the Incidental Take Statement (ITS) for all of the above listed allotments.

unexpected financial and business management hardships for the permittees.

DISCUSSION

Much of the following discussion and rationale evolved during a June 26 - 28, 2007, Malheur National Forest - sponsored meeting with Level 1 Team members (NOAA and FWS) and two nationally recognized and published streambank alteration experts, Tim Burton, Fisheries Program Leader (retired), Idaho State Office, BLM, and Eric Archer, Program Leader for PIBO⁴ Effectiveness Monitoring Team, in order to discuss and hopefully reach consensus on the bank alteration standard as required by the May 23, Biological Opinion.

Issue #1: The streambank alteration indicator and associated requirements in the BiOp and ITS directly conflicts with the Interagency Monitoring Protocols produced by Interagency Implementation Team (IIT) and Burton et al. (2007) as developed for PACFISH/INFISH Biological Opinions. In addition, current scientific literature does not support using streambank alteration as a stand alone indicator for either Terms and Conditions or for the determination of "take".

The Interagency Technical Bulletin (Burton et al. 2007) and IIT both state that streambank alteration should not be used as a stand alone indicator, but is meant to be used in conjunction with other annual and long-term indicators to help evaluate whether the prescribed management is effective in moving toward desired conditions of riparian vegetation and stream channels. Burton et. al. 2007 quotes the Stubble Height Review Team (2006) who suggested "*If riparian conditions are not meeting resource objectives, are degraded and static, or in a downward trend due to livestock grazing, changes in management should be implemented and monitoring of the riparian responses should be required. An "adaptive management" approach is recommended to refine the grazing strategy through time, as needed, to meet the long-term riparian resource objectives.*" Monitoring the current year's grazing impacts (short-term monitoring of livestock use including annual bank alteration) along with long-term condition and trend indicators of riparian vegetation, stream bank, and stream channel conditions at the same time and location, provides the basis for making grazing adjustments needed to achieve desired conditions. Therefore, single indicators of condition or trend are usually not adequate to make effective and prudent adjustments to a grazing strategy. Data on the condition and trend of vegetation and streambanks reflecting multiple indicators, combined with the knowledge of current management practices helps establish "cause-and-effect" relationships important for making well-informed adjustments to a grazing strategy. Thus, livestock use indicators, e.g., stubble height, streambank alteration, and woody species use, alone do not provide the data needed to determine condition and trend of riparian health.

Current scientific literature on the effects of grazing on stream channels and fish habitat does not support using streambank alteration as a singular indicator or Term and Condition standard to assess impacts to fish habitat. For example, the Allowable Use Criteria proposed by Cowley (2002), were "*intended to be guidelines and not standards.*" In addition, he contends there is very little research data available concerning the amount of streambank alteration that a stream can tolerate and repair each year (Cowley 2002). Until repair rates are identified for any particular site, the use of a single "indicator" seems arbitrary. However, streambank alteration, in appropriate locations, may be used as an indicator of the intensity of livestock use along streams.

The University of Idaho Stubble Height Review Team (2006) made similar conclusions regarding the use of stubble height as a single standard for all sites and opined that stubble height must be used in combination with

⁴ PIBO stands for the PACFISH/INFISH Biological Opinion Monitoring Program. The goal of PIBO is to implement a monitoring program, within the PIBO study area, with the capability of determining whether the aquatic conservation strategies with PACFISH and INFISH, or the revised land management plans, are effective in maintaining or restoring the structure and function of riparian and aquatic systems.

other indicators. For example, Clary and Leininger (2000) proposed a 10-cm (4 inches) residual stubble height criterion as a “*starting point for improved riparian grazing management.*” They acknowledged that, in some instances, 7 cm (2.75 inches) may provide adequate riparian protection and that, in others, 15 to 20 cm (6-8 inches) may be required to limit stream bank trampling or to reduce willow browsing. Thus, the allowable rate of herbage use (or stubble height reduction) could vary depending upon local environmental variables and the timing, duration, and intensity of livestock use.

Like stubble height, the linkages between streambank alteration and riparian functions have had limited experimental examination. Therefore, Cowley (2002) recommended that until the relationship with long-term indicators has been discovered, any streambank alteration criterion should only be used as a starting point and utilized in conjunction with other factors, as an indicator for improved riparian grazing management.

Streambank alteration may vary significantly, depending upon the amount of soil moisture in the streambanks, the vegetation types, and the amounts of rock, logs, and other obstructions inherent to the streambank on site. For example, a streambank dominated by deep-rooted vegetation and/or rock and logs will deform much less when exposed to the pressure of an animal hoof, than a streambank consisting of loose, moist soil covered by shallow-rooted vegetation. Thus, potential streambank alteration will vary according to stream bank characteristics. By the same token, the ability of streambanks to repair after alteration and/or disturbance also varies from one site to another.

Specifically, the BiOp Terms and Conditions and ITS use streambank alteration as a singular habitat measure, which fails to take into consideration other important environmental and physical components such as channel structure/dynamics and potential rates of repair reflecting the amount of carry-over effects. These components are known to contribute to an understanding of short-term impacts and long-term trends. As discussed previously, there is scarce published scientific research available assessing the relationship between streambank alteration and streambank stability; thus it is unknown what level of streambank alteration equates to what level of streambank instability and further at what level of streambank instability results in a measurable effect to fish habitat and channel dimensions. Consequently, the potential impacts of livestock on the function and form of each stream channel are unpredictable and contingent upon numerous variables, e.g. channel configuration, vegetative structure of the riparian communities, gradient, composition of the channel bedload, and rates of repair - all which are distinctive to each individual stream.

An additional concern involves observer error which varies according to site complexity and level of grazing use. Burton, et. al. 2008 (pages 41-42) provides the following explanation for errors associated with streambank alteration measurements:

From 32 tests of repeatability, the difference between observers averaged between 4 and 8 percent, with lower differences usually associated with light alteration levels (<20% alteration). On-site variability requires sampling enough observations along the streambank to confidently predict the true level of streambank alteration. Validation testing suggests that 80 plots, each with 5 intersect lines (or 80 x 5 = 400 observations) is needed to achieve a confidence interval of 4 to 6% of the mean. Thus, if 80 plots result in a mean of 20% streambank alteration, the confidence interval would be plus or minus 1% (20% multiplied by .05). It is true that levels of streambank alteration can vary among sites under the same levels of grazing use, and these observations suggest that streambank alteration is measurable at a site, with reasonably narrow ranges of variability.

Based on this information, with an observer error of 4 - 8% and a confidence error of 1% the variability in

results could be as much as +/- 9%. Considering the variability, it would be ill-considered to assign a Term and Condition for bank alteration of 10% since the parameters of statistical confidence are essentially the same.

Therefore, the on-the-ground variability among monitoring sites, plus observer error, statistical confidence intervals, and channel morphology all work against the notion of a single indicator for all streams and lands within the 13 grazing allotments covered by the BiOp. Based on the previous discussion, the requirement of less than 10 or 20% streambank alteration as a single surrogate to evaluate all impacts of livestock on fish habitat (via Terms and Conditions or determination of "take") is not supportable and is without scientific basis, which results in an unnecessary limitations on livestock grazing.

***Issue #2:** The BiOp and Terms and Conditions implementing Reasonable and Prudent Measures to avoid or minimize take with requirements of a 10% streambank alteration endpoint indicator for 10 of the 13 allotments significantly modifies the Malheur National Forest's proposed actions assessed in each of the grazing allotment Biological Assessments. The modifications to the streambank alteration requirement causes the agency and permittee to reconsider and revamp the proposed actions including livestock numbers, move and use indicators, as well as seasons of use. In addition, the modified streambank alteration indicator causes unwarranted and unexpected financial and business management hardships for the permittees.*

The MNF's proposed actions in the Biological Assessments included a maximum of 20% streambank alteration combined with other livestock use criteria (endpoint indicators) such as stubble height and shrub utilization. The intent was that these criteria should be modified through time, as needed, to achieve the long-term resource objectives. However, when the BiOp was issued, NOAA assigned a 10% streambank alteration endpoint indicator as a Term and Condition on 10 of the 13 allotments. The MNF believes that a 10% bank alteration endpoint indicator as a Term and Condition significantly affects the proposed actions that the agencies consulted on by considerably reducing duration of grazing in each unit and altering the season of use for the allotment. In order to meet Terms and Conditions as specified in the BiOp, the effects on permittees could range from not being allowed to graze at all, to a significant reduction in livestock numbers and/or season of use, resulting in a considerable and unexpected hardship for the permittees.

The MNF believes the change from 20% to 10% does not constitute a "reasonable and prudent" measure to the proposed actions, but instead constitutes a significant modification of the proposed actions. ESA Section 7 requires minimization of the level of "take". To address that, a biological opinion may contain an incidental "take" statement(s), with reasonable and prudent measures as well as terms and conditions. As stated in the Endangered Species Act Consultation Handbook (2002) at 50 CFR Part 402: "*Reasonable and prudent measures can include only actions that occur within the action area, involve only minor changes to the project, and reduce the level of "take" associated with project activities. Measures are considered reasonable and prudent when they are consistent with the proposed actions' basic design, location, scope, duration, and timing. The test for reasonableness is whether the proposed measure would cause more than a minor change to the project.*"

A 10% streambank alteration Term and Condition presented in the final BiOp is drastically different than a 20% streambank alteration "criterion" as presented in the BA. Not only is it more difficult to achieve the 10% level, but the effect of a Term and Condition is quite different than that of a "criterion". When a "criterion" is exceeded, it would be considered in conjunction with other use criterion. This would likely trigger a review of the causes and effects of exceedence, followed by adjustments to grazing management strategies to rectify the causes of such violation, rather than a punitive or administrative action. This adaptive management approach allows action agencies and permittees to fine-tune site-specific grazing strategies to meet long-term goals while

increasing their knowledge base. In contrast, violation of a Term and Condition would negate the exemptions from the prohibitions of section 9 of the ESA and could result in a punitive action. Such differences constitute more than a “minor” change to the Malheur National Forest’s proposed actions.

RECOMMENDATIONS

1. The MNF strongly believes that stream bank alteration data should only be used to aid in adjusting grazing strategies or stocking rates when combined with other annual and long term monitoring data. Streambank alteration is a good indicator of livestock disturbance when linked to several variables important to salmonids. For example: streambank disturbance may directly affect streambank stability and/or indirectly affect channel stability/dimensions, substrate fine sediment composition, and streamside vegetation potential. Streambank alteration should be combined with the other annual monitoring indicators, such as stubble height and shrub utilization, as well as long-term indicators to adjust grazing strategies or stocking rates. This was an important conclusion of the University of Idaho Stubble Height Review Team (2004), which stated that an annual livestock use indicator “*should not be used as a term and condition in the Grazing Permit or as a Standard in the Land Use Plan. It should be used as a guideline or indicator for changing annual management in the Annual Operating Instructions.*”

2. The MNF strongly believes it is inappropriate to use streambank alteration as a Term and Condition or as an indicator for “take” as described in the BiOp and the ITS. The Forest does, however, feel it is quite appropriate to build into the regulatory implementation framework a process for continuous monitoring, evaluation, and adjustment of variable criteria, including stream bank alteration. Adaptive management can be designed for this very purpose (see Figure 1 for example). Within the feedback loop of adaptive management are regulatory tools which could be expounded in the reasonable and prudent measures of the BiOp. In dealing with ESA and rangeland management, there needs to be a balance between the dual needs of flexibility and certainty. There are several factors that must be accounted for in such an approach, such as:
 - a. Terms and Conditions and associated conservation measures must be reasonably specific, certain to occur, and capable of implementation. For example, the *Terms and Conditions* must be subject to deadlines or otherwise-enforceable obligations and, very importantly, they must address threats to listed species in a way that satisfies the jeopardy and adverse modification standards. This level of certainty is the crux of the issue for “take” minimization relative to livestock grazing adjacent to streams occupied by listed species. In the adaptive management process, the approach must therefore have quantified objectives and required mitigation measures. There must be assurances that these objectives will be achieved, and that the measures will be implemented. Within the adaptive management feedback loop (see Figure 1), the objectives must be assessed and the management modified through time to achieve them. The implementation of the management modifications would be regulated through administration of the annual Letter of Instructions, resulting in punitive action if the annual instructions are not followed. Thus, in box 3 (Figure 1), an annual indicator could be adjusted if it is not attaining the desired stream/riparian conditions, and in box 5 (Figure 1) a grazing action could be adjusted if it is not attaining the desired stream/riparian condition.

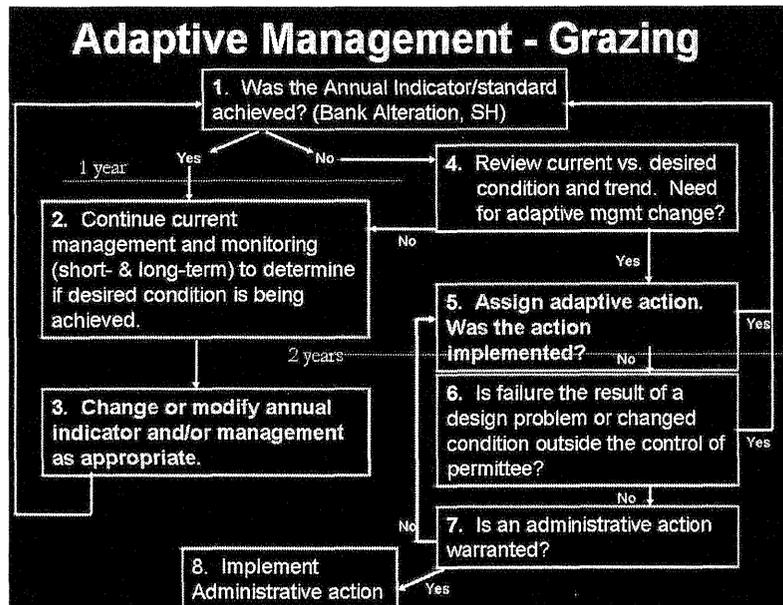


Figure 1. Adaptive Management Feedback Loop.

b. ESA requires that planned actions must not “reduce appreciably the likelihood of both survival and recovery”. The recovery side of this requirement, as it relates to existing land use plans and associated consultations (PACFISH/INFISH/BiOps), suggests that actions must not appreciably reduce the “near natural rate of recovery” of the desired habitat conditions. Thus the Terms and Conditions and associated conservation measures should be designed to assess both the annual livestock indicators that evaluate the short-term effects of grazing, along with the desired condition variables for habitat features (e.g. streambank stability) to assure that they are recovering. The permittee would be held accountable for being in compliance with all requirements of the Grazing Permit and Letter of Instructions, including move triggers (i.e. streambank alteration and stubble height). The action agency would be held accountable for monitoring to assess whether the action is moving towards Riparian Management Objectives (RMOs) and rates of recovery. The action agency would also be required to report to the consulting agencies any non-compliance with either the annual indicators or trends away from the RMOs, and would then be required to apply adaptive management actions designed to reverse any negative trends or to address lack of compliance with the annual indicator(s), as appropriate. Such adaptive management actions should be taken in coordination with the consulting agencies, possibly through the streamlining teams.

3. Review the documentation that is required under the Services policy on Information Standards Under the Endangered Species Act [59 FR 34271 (July 1, 1994)]. The Policy section specifically paragraphs c. and d. require the Services to document their evaluation of information and rely on the best available comprehensive, technical information regarding the status and habitat requirements for a species throughout its range. Because of this policy there should be clear rational on how the bank alteration term and condition will minimize take. If the term and condition is found to be arbitrary without clear rational remove the term and condition from the biological opinion.

REFERENCES

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