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Paulina Ranger District
7803 Beaver Creek Road
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January 26, 2004

Re: Scoping Comments on Deep, Derr, Happy, Little Summit and Roba Allotments Grazing Permits

Dear Ms. Blackburn:

Northwest Environmental Defense Center's (NEDC) purpose is to preserve and protect the natural environment in the Pacific Northwest. Our members frequently utilize National Forests, as well as other public lands for a variety of purposes and are concerned with improving forest ecosystems. NEDC asks that the Paulina Ranger District consider the following issues and concerns as it analyzes alternatives for the reissuing of term grazing permits for the Deep, Derr, Happy, Little Summit and Roba Allotments on the Ochoco National Forest. Grazing on these allotments has numerous and varied significant effects on the environment, including effects on listed and sensitive wildlife species and their habitat. Thus, the effects of these permit renewals must be analyzed in an Environmental Impact Statement. 42 U.S.C. § 4332(2)(C).

Fish Habitat

As noted in the Forest Service's scoping letter for this proposed action, there is a need to improve a number of environmental factors in order to attain accordance with the Inland Native Fish Strategy (INFISH) and the Anadromous Fish Strategy (PACFISH). Most importantly, the action must meet the mandatory standard in INFISH and PACFISH (for the Happy Allotment) that grazing practices "shall not retard" attainment of Riparian Management Objectives (RMOs), nor adversely affect listed inland native fish. GM-1, INFISH DN A-9; PACFISH EA at C-12. The Forest Service previously has defined "retard attainment of RMOs" as "[m]easurably slow recovery of any identified RMO feature (e.g., pool frequency, water temperature, etc.) that is worse than the objective level. Measurable degradation of the physical/biological process or conditions that determine RMO features would be considered to retard attainment of RMOs." NMFS BiOp on implementation of PACFISH, App. B "Final Definitions Proposed by USFS and BLM During Section 7 Consultation on Interim PACFISH Direction" (1/23/95) at 53.

The scoping letter outlines the Proposed Action including what it terms "use standards" under INFISH. Unfortunately, the scoping letter fails to refer to the key grazing standard from INFISH and PACFISH. Grazing standard GM-1 requires that the Forest Service

> [m]odify grazing practices (e.g. accessibility of riparian areas to livestock, length of grazing season, stocking levels, timing of grazing, etc.) that retard or prevent attainment of Riparian Management Objectives (RMOs ...) or are likely to adversely affect listed anadromous fish [and inland native fish]. Suspend grazing if adjusting practices is not effective in meeting RMOs or avoiding adverse effects on listed anadromous fish.

INFISH EA at A-9, E-9; PACFISH EA at C-12. The RMOs were chosen because they are "indicative of ecosystem health and are easily quantified and subject to accurate, repeatable measurements." INFISH EA at A-3; PACFISH EA at 16. Thus, the key elements that require monitoring under this standard are not stubble height and bank instability alone, but include each of the RMOs listed under INFISH and PACFISH.

According to the scoping letter, the third alternative would be to "continue the current management with existing standards." Scoping Letter at 5. It is unclear what "existing standards" the letter is referring to. The Ochoco Land and Resource Management Plan (LRMP) was amended by INFISH and PACFISH in 1995. Thus, INFISH and PACFISH grazing standards, including Grazing Standard GM-1, have been the "existing standards" since that time. Failure to ensure that site-specific actions, including grazing, are consistent with standards in the LRMP is a violation of the National Forest Management Act. 16 U.S.C. § 1604(i). Thus, it is unclear how "current management with existing standards" meets the requirements of NFMA if these "existing standards" are not those outlined in the LRMP as amended by INFISH and PACFISH. If current management is inconsistent with the LRMP, it is not a valid alternative for consideration.

In addition, it is critical that the Forest Service conduct viability assessments for regional populations of the various fish species most affected by livestock grazing. The Forest Service is required to evaluate the population trends of all management indicator species based on monitoring in the field, and the relationships of populations to habitat changes caused by grazing as required by the National Forest Management Act. 36 C.F.R. § 219.19(a)(6). This information, including results of field surveys, should be considered a critical element in determining the effects of grazing and whether grazing can or should continue in the planning area.

Monitoring and Management Standards

The monitoring practices outlined in the scoping letter are problematic because they fail to ensure that grazing does not exceed the thresholds outlined in the letter. For example, the scoping letter states that "[m]onitoring will be done twice to gather information on livestock use and effects." Scoping Letter at 3. Monitoring will occur after the pasture is grazed and again at the end of the growing season. *Id*. If monitoring only occurs after an area has been grazed, how will the Forest Service ensure that move triggers and indicators are not exceeded? The scoping letter goes on to state that "[p]asture moves will occur before the alteration condition threshold is reached or

before the Forage Utilization/Stubble Height threshold is reached." *Id*. How will the Forest Service ensure thresholds will not be exceeded if it fails to monitor pasture use until after grazing ends? What are the potential effects to riparian dependent species from such a monitoring regime? How will the Forest Service address any problems caused by a failure to make timely pasture moves? How will the deleterious effects of exceeding move triggers and indicators be addressed and remedied? These questions and inconsistencies should be addressed in the EIS.

The scoping letter also states that cattle moves between pastures will be adjusted if streambank damage approaches 10% "within the key area." *Id*. "If this condition occurs, then bank trampling will be measured, documented, and livestock will be removed from the pasture." *Id*. How will you know whether bank damage is "approaching 10%" if you do not plan to measure and document bank damage until after "this condition occurs?" Such inconsistencies in the stated monitoring regime must be clarified in an EIS.

Further, the Management Standards contained in Table 2 are unclear and confusing. *Id*. at 4. According to Table 2, streambank damage of 0-10% indicates a "nonfunctioning" condition that is "unsatisfactory" and 20% streambank damage indicates a "proper functioning" condition that is satisfactory. *Id*. The purpose of INFISH is to "reduc[e] the risk of loss of populations and reduc[e] potential negative impacts to aquatic habitat for resident fishes for an interim period." INFISH EA at I-1. If reducing negative impacts to aquatic habitat is indeed the goal of management activities on the forest, why does increased bank damage indicate a properly functioning condition? The standard for ground cover is also confusing. According to Table 2, 90% groundcover indicates conditions are properly functioning, functioning at risk and nonfunctioning. *Id*. The EIS should clarify these management standards. In addition, the management standards against which grazing is judged must comply with the LRMP as amended by PACFISH and INFISH.

Riparian and Forest Health

The Proposed Action includes the effects of livestock grazing on riparian conditions as a preliminary issue, but another issue that must be evaluated is the effect of livestock grazing on the health and density of ponderosa pine forests. The effects of grazing will have major environmental impacts on non-riparian species that depend on these forests. *See* Belsky and Blumenthal, "Effects of Livestock Grazing on Stand Dynamics and Soils in Upland Forests of the Interior West," *Conservation Biology* 11: 315-327 (1997) (hereinafter Belsky and Blumenthal, "Effects of Livestock Grazing"). As is shown in this article, grazing "alters forest dynamics by (1) reducing the biomass and density of understory grasses and sedges, which otherwise outcompete conifer seedlings and prevent dense tree recruitment, and (2) reducing the abundance of fine fuels, which formerly carried low-intensity fires through forests." Id. at 315. Effects of grazing on these upland forests must be disclosed in an EIS.

Water Quality

With regard to the effects of livestock grazing on water quality, please be sure to address all aspects of the riparian conditions. Are there water-quality-limited streams in the planning area? Do livestock contribute to the non-complying water quality parameters? We suspect the answers

to these questions are affirmative. Thus NEPA requires that the EIS disclose these water quality problems and how livestock grazing under the proposed alternatives contribute to these problems. 40 C.F.R. § 1502.16(a), (b). The EIS should also consider and explain whether a TMDL or water quality management plan is necessary. 33 U.S.C. § 1313(d) (requiring a TMDL where water quality standards are not being met).

Wild and Scenic Rivers

Congress enacted the National Wild and Scenic Rivers Act (WSRA) in 1968 to identify rivers that possess "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values" and to preserve those rivers in free-flowing condition and protect their immediate environments "for the benefit and enjoyment of present and future generations." 16 U.S.C. § 1271. The North Fork Crooked River has been designated a Wild and Scenic River under the Act. The wild and scenic portions of this river flow through the Roba and Deep Creek grazing allotments. Each river designated under the Act "shall be administered in such manner as to protect and enhance the values which caused it to be included in said system." Id. at § 1281(a). "Primary emphasis shall be given to protecting its esthetic, scenic, historic, archeological, and scientific features." Id. The WSRA also specifies that managing agencies must protect the water quality of all rivers added to the National Wild and Scenic Rivers System. Id. at §§ 1271, 1283(c). Thus, the Forest Service has a mandatory duty to ensure that grazing in the above mentioned allotments do not damage water quality or the outstanding remarkable values of the Wild and Scenic North Fork Crooked River. What level of grazing, if any, is compatible with the values of the river? What effects does grazing have on these values? What mitigation measures are necessary to comply with the duties of the WSRA? Is grazing compatible with the management plan for the North Fork Crooked River? Each of these questions must be answered in the EIS.

Soils

Livestock grazing has detrimental effects on soil quality and quantity. Therefore, the EIS should also analyze these effects on soils in the planning area, including compaction, erosion, reduced infiltration, and loss of fertility. The location, acreage, and causes of degradation to soils must be evaluated. In addition, to serve as a point of comparison, location and acreage of soils in good and excellent condition must be reported. Current management practices are known to degrade upland and riparian soils. *See* Belsky and Blumenthal, "Effects of Livestock Grazing." It is important to determine how far current soil conditions deviate from their potential natural conditions and how long managers anticipate it will take, under each alternative, to restore soils to normal conditions.

Microbiotic Crusts

Microbiotic crusts are a major indicator of healthy rangelands. They stabilize the soil, fix nitrogen, increase soil fertility, increase growth of higher plants, and in some areas increase water infiltration into the soil. Idaho BLM experts on microbiotic crusts in the Northwest, Dr. Roger Rosentreter and Julie Kaltenecker of Boise BLM, and two scientific evaluations written for the Interior Columbia Basin Ecosystem Management Plan (ICBEMP), repeatedly state that the

microbiotic crusts of the ICBEMP planning areas must be actively managed by federal agencies and restored for the recovery of Northwest shrublands and grasslands. The EIS must identify the presence of any microbiotic crusts within the planning area, discuss the importance of the crusts, evaluate their current status over the entire planning area, give the causes of their degradation, and discuss concomitant losses of ecosystem function and how to recover the health of the area.

Noxious Weeds

Noxious weeds are a major threat to the health and sustainability of rangelands in the planning area. Hounds tongue already occurs within the Roba allotment. Scoping Letter at 2. The EIS should disclose and analyze the effects of continued grazing on the spread of this invasive weed, including the potential for spreading this weed to other portions of the forest. In addition to Hounds tongue, the EIS should examine the extent of other weed infestations, how fast they are now spreading, what weeds are problematic, and the major causes of their spread. The rapid spread of exotic weeds in arid rangelands has been identified in the scientific literature as being due to: (1) transportation of weed seeds into new regions and then throughout the landscape; (2) loss of vigorous native species that otherwise out-compete the weeds; (3) disturbance of the soil surface, creating a seed bed for weeds; (4) loss of the microbiotic crust, which prevents establishment of weed seeds; and, (5) loss of soil mycorrhizae, which are essential for growth and vigor of native species, but not exotic weeds. There is an extensive scientific literature concluding that cattle and sheep are the major causes of weed introductions, loss of native plant vigor, and disturbances to the soil, microbiotic crust and mycorrhizae throughout the arid West.

General Comments Regarding Suitability of Grazing

NEDC suggests that the Forest Service select the "No Action" alternative in which no livestock grazing will be allowed. In considering this and other proposed alternatives, the EIS should disclose and analyze these additional effects of livestock grazing.

Many studies in the range science literature report that *springtime grazing* leads to loss of native bunchgrasses and serious damage to wet soils and streambanks; *summer grazing* leads to loss of woody species, loss of plant vigor, and loss of seed crop; *autumn grazing* leads to loss of woody species, long-term streambank disturbance, and loss of vegetative cover needed to protect riparian soils; and *winter grazing* can lead to loss of woody species, compaction and disturbance of wet soils, and loss of litter needed to protect soils. In other words, there are no seasons in which grazing is not harmful. *See, e.g.*, W. Elmore & B. Kauffman, *Riparian and Watershed Systems: Degradation and Restoration*, *in* ECOLOGICAL IMPLICATIONS OF LIVESTOCK HERBIVORY IN THE WEST 212-231 (M. Vavra, W.A. Laycock, and R.D. Pieper eds., 1994); W.P. Clary & B.F. Webster, *Managing grazing of riparian areas in the intermountain region*, USDA Forest Service Gen. Tech. Rep. INT-263 (1989).

When Clary and Webster, *supra*, summarized research on different riparian grazing systems, they concluded that "experience in riparian areas has generally failed to show an advantage to any specific grazing system." They also concluded that "the level of utilization to be the most important consideration." Other researchers have agreed and recommended (1) the use of

riparian pastures, which strictly limits riparian grazing, (2) streamside fencing, (3) increased periods of rest, and (4) reduced intensity of use as the best ways to restore degraded streams. W.S. Platts & F.J. Wagstaff, *Fencing to control livestock grazing on riparian habitats along streams: Is it a viable alternative?* 4 N. Amer. J Fish. Manage. 266-272 (1984). Reduced levels of use and non-use were therefore those researchers' main recommendations for restoring streams. *Id*.

The only grazing system consistently found to restore and protect streams at an acceptable rate is "no grazing" and "corridor fencing." *See* Elmore & Kauffman, *supra*; R.D. Ohmart, *Historical and present impacts of livestock grazing on fish and wildlife resources in western riparian habitats, in* RANGELAND WILDLIFE 245-279 (P.R. Krausman ed., 1996); A.J. Belsky et al., *Survey of livestock influences on stream and riparian ecosystems in the western United States*, 54 J. Soil and Water Cons. 419-431 (1999) (attached).

Conclusion

NEPA requires the Forest Service to disclose the indirect and direct effects of its actions on the environment. 40 C.F.R. § 1502. 16. In addition, the Forest Service must consider cumulative impacts, including the incremental impacts of grazing in these allotments on the streams that flow through one allotment and into another and the species these streams support. *Id*. § 1508.7. Thus, all components of the ecological and biological system of these adjacent allotments should be evaluated as a whole to demonstrate whether grazing is ecologically sustainable in the relevant planning area. For example, the ecological sustainability assessment should evaluate as a whole the riparian areas and uplands, forested and un-forested areas, and should include impacts from grazing on water quality, fish and wildlife species, forest health and density, soils, microbiotic crusts, and invasion of non-native species and noxious weeds. In making this assessment, NEPA requires that the Forest Service evaluate relevant and new scientific information, including the articles NEDC has cited. *Id*. at § 1502.9(b), § 1502.24. Thank you for this opportunity to comment on your proposed actions regarding grazing permits on the Deep, Derr, Happy, Little Summit and Roba Allotments.

Sincerely,

Erin Madden
Board Member and Volunteer
Northwest Environmental Defense Center

Bill Marlett
Executive Director
Oregon Natural Desert Association