



Oregon Natural Desert Association

8 May 2003

VIA U.S. MAIL

John Young, Bull Trout Coordinator  
U.S. Fish & Wildlife Service  
911 NE 11th Avenue  
Portland, OR 97232

Re: Comments on Proposed Bull Trout Critical Habitat

Dear Mr. Young:

Please accept these comments on behalf of the Oregon Natural Desert Association regarding the U.S. Fish & Wildlife Service's proposed critical habitat for the threatened bull trout (Salvelinus confluentus). 68 Fed. Reg. 6863 (Feb. 11, 2003); 67 Fed. Reg. 71,235 (Nov. 29, 2002).

The Oregon Natural Desert Association (ONDA) is a non-profit public interest organization dedicated to preserving and protecting the public lands of eastern Oregon. As part of its mission, ONDA is vitally interested in the protection and recovery of the ecosystems and species indigenous to the shrub-steppe and forested landscapes of the Great Basin, high desert, and intermountain West, including the streams that serve as vital lifelines through these arid lands. ONDA has a long history of interest and involvement in federal and state agency activities with respect to grazing, riparian areas, water quality, and fish and wildlife—and specifically with respect to protection of bull trout and other native fish species throughout the region. ONDA and its members are particularly familiar with, and interested in, those portions of the Malheur, John Day, and Deschutes river basins covered by the proposed rule. ONDA's mission is to protect, defend, and restore forever, the health of Oregon's native deserts.

### **Scope of Proposed Critical Habitat**

ONDA supports one-hundred percent of the areas the Fish & Wildlife Service has proposed for critical habitat. However, the FWS proposal leaves out additional vast areas, streams, and sub-watersheds that should also be included as critical habitat for bull trout.

As you know, critical habitat is:

(i) the specific areas within the geographical area occupied by the species, at the time it is listed . . . , on which are found these physical or biological features (I)

essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed . . . , upon a determination by the Secretary that such areas are essential for the conservation of the species.

16 U.S.C. § 1532(5)(A). The current proposed rule would only designate as critical habitat the waterways, and not the adjacent lands. This proposal falls well short of protecting the “physical and biological features” essential to the conservation and recovery of bull trout. It is undisputed that bull trout have the most stringent and specific habitat requirements of all salmonids. See, e.g., U.S. Forest Serv., *An Assessment of Ecosystem Components in the Interior Columbia Basin and Portions of the Klamath and Great Basins*, Vol. III, p. 1182 (1997) (hereinafter “ICBEMP, Vol. III”). Stream temperature and substrate composition are particularly important characteristics of bull trout habitat. Bull trout require the coldest water of all the regional native fish (6–8 degrees C for spawning and 10–12 degrees C for rearing habitat), and are more strongly tied to the stream bottom and substrate than other salmonids. Id. at 1182.

Because of these stringent requirements, it is essential that the FWS’s proposal recognize that activities occurring on lands immediately adjacent to streams and stream banks directly and indirectly affect instream habitat conditions for bull trout—and will affect the ability of this species to recover from its current imperiled state. Upland and riparian activities that disrupt watershed processes, influence stream channel characteristics, and alter sediment delivery, stream aggradation, wood loading, riparian canopy, and the hydrologic regime, all affect bull trout recovery. ICBEMP, Vol. III, at 1183–84. These processes and stream characteristics are vitally important elements of bull trout habitat.

Restoration of degraded habitats is critical to the conservation and recovery of bull trout. The authors of the Interior Columbia Basin Ecosystem Management Plan recognized six years ago that, “Even with no further habitat loss, extirpations may be likely for many remaining isolated populations.” ICBEMP, Vol. III, at 1184. ONDA is especially concerned with the impacts of livestock grazing on riparian and aquatic habitat critical to the conservation of bull trout. Degradation of riparian areas significantly impacts genetic variability and life histories of the species. ONDA and its members have spent a great deal of time monitoring watersheds in the Malheur and John Day river basins, in particular. For example, livestock grazing along the Malheur and North Fork Malheur rivers and their tributaries has consistently reduced riparian grasses to mere stubble, trampled and caused collapse of stream banks, and eliminated or severely stunted growth of key woody shrub species such as willow, alder and cottonwood. The same is true of numerous bull trout-bearing streams throughout the Middle Fork John Day, North Fork John Day, and upper main stem John Day River watersheds. The scientific literature is replete with evidence that these types of impacts increase water temperatures by reducing shade cover; increase erosion and sedimentation, thus degrading spawning gravels; and degrade stream channel morphology by reducing bank stability, the presence of deep pools, and width to depth ratios.<sup>1</sup> Riparian areas are absolutely essential to the conservation and recovery of bull trout, as

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<sup>1</sup> See, e.g., J. Boone Kauffman *et al.*, *Effects of Livestock Exlosures (Corridor Fencing) on Riparian Vegetation, Stream Geomorphic Features, and Fish Populations*, Bonneville Power Administration Project Nos. 2000-051-00 & 2000-051-01 (Sept. 17, 2002), [available at](http://www.efw.bpa.gov/cgi-bin/ws.exe/websql.dir/FW/PUBLICATIONS/) [www.efw.bpa.gov/cgi-bin/ws.exe/websql.dir/FW/PUBLICATIONS/](http://www.efw.bpa.gov/cgi-bin/ws.exe/websql.dir/FW/PUBLICATIONS/)

these areas “maintain stream structure and function through processes such as water filtration, bank stabilization, water storage, groundwater recharge, nutrient retention, regulation of light and temperature, channel shape and pattern (topography and micro-topography), and dispersal of plants and animals.” ICBEMP, Vol. III, at 1100.

Forest Service water temperature monitoring on both the Malheur and the North Fork Malheur rivers, as well as their immediate tributaries, shows that the rivers have exceeded these temperatures anywhere from 10 to 125 or more days per year—with maximum temperatures frequently in the mid- to high-70s—for at least a decade. The effects of high water temperatures on salmonid species such as bull trout are well documented, and include disease and stress, increased susceptibility to predation, and thermal barriers to migration. Temperatures in the mid- to high-70s can cause death in a matter of hours or days by causing the breakdown of vital respiratory and circulatory processes. Temperatures in the mid-60s to lower 70s may cause death in a matter of weeks. The Malheur National Forest’s own annual Monitoring and Evaluation Reports, as well as the biological opinions on the effects of Malheur and North Fork Malheur River watershed livestock grazing on bull trout, indicate that the Malheur River population is at “high risk of extinction.” The Forest Service also has stated that “[o]nly the North Fork Malheur metapopulation is not identified as moderate-to-high risk of extinction, increasing the need to conserve this relatively healthy population.”

Clearly, any critical habitat designation for bull trout, if it is to effectively achieve the conservation and recovery of the species, must necessarily seek to protect those portions of habitat that “require special management considerations or protection.” Because the presence of livestock grazing in particular on the public lands has such pervasive adverse effects on bull trout, the designated critical habitat for the species should include all riparian areas adjacent to bull trout spawning, rearing and migration streams.<sup>2</sup>

### **Numeric Habitat Standards**

In tandem with insuring that the essential geographic areas of critical habitat are designated, the FWS must also insure that these areas essential to the conservation of the species receive the special management required to achieve the physical and biological conditions necessary to recover bull trout. The FWS should include the following specific numeric habitat standards designed to protect the constituent elements of critical habitat:

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QueryCustom.pl?Category=H&SortOrder=DOEBPNum; A.J. Belsky *et al.*, Survey of Livestock Influences on Stream and Riparian Ecosystems in the Western United States, 54 *J. Soil & Water Cons.* 419 (1999); G.J. Scrimgeour & S. Kendall, Consequences of Livestock Grazing on Water Quality and Benthic Algal Biomass in a Canadian Grassland Plateau, 29 *Envtl. Mgmt.* 824 (2002) (deferred grazing inadequate to allow significant increases in bank stability, stream cover, and riparian vegetation). See also ICBEMP, Vol. III, at 1099–1100 (summarizing effects of grazing on aquatic systems and providing brief review of over 70 years of scientific research of these effects).

<sup>2</sup> Certainly, there are other land use activities and issues on the public lands besides livestock grazing (such as roads and logging) that also have severe impacts on bull trout habitat. However, ONDA concentrates on the impacts of livestock grazing in these comments because our organization has developed a particular awareness of, and expertise in, this issue over the years. It is no exaggeration to assert that livestock grazing may well be the number one cause of bull trout habitat degradation in the John Day and Malheur Recovery Units.

- Bull trout critical habitat must be clean: Fine sediments < 6.4mm must be limited to less than twenty percent in spawning habitat.
- Bull trout critical habitat must be cold: Stream temperatures in current and historic spawning, rearing, and migratory corridor habitats should not exceed 6–8 degrees C for spawning, with 2–4 degrees C optimal for incubation, and 10–12 degrees C for rearing habitat, with 7–8 degrees C being optimal. Migratory stream corridors should be 12 degrees C or less.
- Bull trout critical habitat must be complex: To ensure the necessary stream channel and flow stability that will protect the complex forms of cover that bull trout require—including overhanging vegetation to produce shade, large woody debris in streams to produce pools, undercut banks for hiding cover, and large boulders to produce pools—protection of riparian areas should extend at least 300 feet from the outer edge of the floodplain. All streams should average greater than 90 percent bank stability. Wherever possible, and especially in currently poor condition riparian areas, critical habitat should be extended to the entire hydrologic watershed.

Without these numeric standards, there is no way for the FWS and land managing agencies to know when critical habitat is being damaged or destroyed. Moreover, the FWS cannot assume that habitat that is being presently managed pursuant to the INFISH and PACFISH aquatic conservation strategies does not need to be designated as critical habitat. ONDA has observed that both INFISH and PACFISH have suffered from inconsistent application of watershed analysis, a lack of clear understanding of what a watershed analysis entails and the level of detail required, consistent failures to document and provide adequate rationale for modifications to Riparian Management Objectives and Riparian Habitat Conservation Areas, failures to properly implement the strategy, a lack of a formal monitoring strategy (for INFISH), and no strategy for effectiveness monitoring. Thus, it is imperative that the FWS take this opportunity to designate comprehensive and connected critical habitat, and to include specific numeric habitat standards that will protect clean, cold, and complex habitat for bull trout.

### **Conclusion**

Thank you for the opportunity to comment on this proposed critical habitat designation and for your consideration of ONDA's comments. If you have any questions regarding these comments, please feel free to contact me at the address below.

Sincerely,

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