

24 June 2005

**The Pacific Rivers Council**

PMB 219, 1 Second Avenue East, Suite C  
Polson, Montana 59860

**MEMO TO:**

John Young, Bull Trout Coordinator  
U.S. Fish and Wildlife Service, Ecological Services  
911 NE 11th Avenue, Portland, OR 97232  
[R1BullTroutCH@fws.gov](mailto:R1BullTroutCH@fws.gov).

**Attn:** RIN 1018–AU31

**RE: Re-opened Comments on Proposed and Final Critical Habitat and Economic Analysis for ESA-Listed Bull Trout**

The Pacific Rivers Council (PRC) is a nonprofit conservation organization advocating the protection and restoration of rivers, streams, and their native species diversity. We have read the Proposed and Final Designation of Critical Habitat for the Klamath River and Columbia Basin Distinct Population Segments (DPSs) of Bull Trout, the Economic Analysis and the Notice re-opening comment on them (Federal Register 70: 29998 – 30000). On behalf of the Pacific Rivers Council, we request the following comments be entered into the public record.

We (PRC) view this re-opening of comment as fundamentally illegitimate and probably illegal, given that a Final Rule (deeply flawed both legally and scientifically in our view) has been promulgated and is currently being litigated, but has not been withdrawn, despite comments being re-opened.

An additional concern is the lack of transparency and openness in this comment re-opening process. For example, a good-faith attempt at direct notification of the re-opening of comments to all previous commentators would seem a minimal expectation, but to our knowledge, this was not done. We were also surprised not to find any mention of this comment re-opening or link to the Federal Register notice on the bull trout species profile web page ([http://ecos.fws.gov/species\\_profile/servlet/gov.doi.species\\_profile.servlets.SpeciesProfile?spcode=E065](http://ecos.fws.gov/species_profile/servlet/gov.doi.species_profile.servlets.SpeciesProfile?spcode=E065)) linked from the FWS Endangered Species Program home page (<http://www.fws.gov/endangered/>).

We append and incorporate by reference our original comments at the end of this document. We emphasize that our original concerns and objections were not just ignored or overridden, but the Final Rule worsened the causes for them many-fold.

The Service's approach to economic analysis is fundamentally unsound, far beyond the "apples and oranges" difficulty of cost/benefit accounting when many real costs AND benefits are difficult to "monetize". (However, an entire discipline of economics exists devoted to just this problem; credible if imperfect methods have been developed to address it; some of these methods – accepted by the Service as valid in previous analyses – were employed in this case; and the Service censored the results from the economic analysis and Final Rule.)

Besides this censorship, the Service counted as costs of critical habitat designation all costs of ongoing/planned conservation/recovery measures, including those that would be incurred anyway, even in the absence of critical habitat designation. In conjunction with accounting that quantifies only costs and not direct and indirect benefits of designating critical habitat, this creates a fundamentally dishonest, grossly slanted, non-credible analysis, strongly biased against designating essential bull trout habitat as critical habitat.

We originally objected strongly on legal, scientific and rational grounds to the Service's proposal (unsupported by either logic or the plain language of the Endangered Species Act sections on which it was purportedly based) to exclude from critical habitat designation large areas of essential habitat that is currently or proposed to be included in some conservation overlay such as a Habitat Conservation Plan. Yet the Final Rule, rather than respond credibly to these objections, excluded vast additional areas (including the entire state of Montana) on this illogical and illegal basis. We strongly reiterate our original objections to these exclusions, emphasizing:

1. Such plans and policies fail to regulate some of the key actions that influence the fish – for example, there are no protections of groundwater or from surface water extraction, etc., in the Montana bull trout plan.
2. Equally important, many provisions of such plans (e.g., Montana Bull Trout Restoration Plan) are essentially voluntary, often unfunded, without functional mechanisms for tracking and reporting accomplishments and success or failures in a timely manner. It appears by all accounts that in fact implementation is slow to nonexistent for most of the Montana plan's provisions. Finally, there were lists of recommendations made by Montana's Bull Trout Scientific Group for immediate conservation actions that were never acted on by Montana and were not incorporated into the Plan, which has never been subjected to scientific scrutiny as to its adequacy to protect and recover bull trout populations.
3. The actions covered by existing and proposed HCPs and other "conservation overlays" (e.g., Northwest Forest Plan, INFISH, Washington's Forests and Fish, Montana Department of Resources and Conservation's proposed HCP) only pertain to a subset of the possible threats generated by human activity in the watershed. Thus, critical

habitat designation would in fact provide significant additional protection, contrary to the Service's persistent and illogical claim that it is redundant. These rationalized exclusions are a mongrel collection of voluntary, unfunded, and to-be-drafted measures, and the courts have admonished against reliance on such measures in other ESA contexts. The conservation mechanisms at issue cover only a small part of the list of actions and threats to bull trout that are endemic or potentially could occur within the excluded areas. Hence, even if perfectly effective, they are not adequate to ensure protection of critical habitat (e.g., forestry agreements specifically do not regulate highways, railroads, discharge or shipment of harmful materials, dams, flow diversion, groundwater extraction or pollution, mining, or fish hatchery and stocking practices, to name just a few).

Essentially the government is giving away, without full public disclosure, Get-Out-of-Jail-Free cards to utilities, local governments, agriculture, virtually all other developers, etc., simply because someone drafted forestry measures or some other unrelated voluntary agreement covering some limited set of actions in the excluded area.

The Service is being disingenuous in deciding to exclude vast areas claiming that additional protection above existing regulatory mechanisms would be needless. If in fact existing management and regulatory mechanisms were adequate to foster recovery in those areas, there should be VIRTUALLY NO NET COST to including them as critical habitat. In fact, these are the CHEAPEST places to protect, by far, IF one accepts the Service's premise as valid (we do not): by virtue of designating them, the Service might find some flexibility in designating habitat in the remainder of the range. If one accepts the premise underlying these exclusions (again, we don't), then the Service's decision to exclude vast areas with coverage under other existing and proposed agreements also is clearly in conflict with ECONOMIC expediency. The reasonable action would be to designate large areas where protection entails little/no net cost, rather than areas where protection may impose sizable new costs on additional parties because existing protections are insufficient.

The Service's simultaneous claims that critical habitat is redundant and provides no significant additional protection, but is nevertheless an onerous additional regulatory burden to landowners – purportedly making benefit of exclusion exceed benefit of inclusion – is fundamentally self-contradictory. This perverse illogic reveals the capriciousness of this exclusion policy, and that it was clearly designed NOT to protect habitat, but to grant favors to special private and political interests. It capitably qualifies as "arbitrary and capricious" and is profoundly contrary to the best available scientific and commercial information.

Regards,

Chris Frissell, Ph.D., Senior Staff Scientist  
Gary Carnefix, M.Sc., Research Associate

phone 406 883 1503

fax 406 883 1504

e-mail: <hanfris@digisys.net>, <gcarnefix@aol.com>

**Previous Comments:**

28 January 2003

**The Pacific Rivers Council**

**PMB 219, 1 Second Avenue East, Suite C**

**Polson, Montana 59860**

**MEMO TO:**

U.S. Fish and Wildlife Service  
John Young, Bull Trout Coordinator  
911 N.E. 11th Avenue, Portland Oregon 97232

FAX: 503-231-2218, Attn -- John Young  
Or Email [R1BullTroutCH@r1.fws.gov](mailto:R1BullTroutCH@r1.fws.gov)

**RE: Comments on Proposed Critical Habitat for ESA Listed Bull Trout**

The Pacific Rivers Council is a nonprofit conservation organization advocating the protection and restoration of rivers, streams, and their native species diversity. We have read the Proposed Designation of Critical Habitat for the Klamath River and Columbia Basin Distinct Population Segments (DPSs) of Bull Trout, 50 CFR Part 17, RIN 1018-A152. On behalf of the Pacific Rivers Council, I request the following comments be entered into the public record.

First, the Service deserves support for the scope and biological criteria used to identify critical habitat for bull trout. Spawning and rearing streams occupied by small populations, and river mainstems, lakes, and reservoirs occupied transiently or seasonally by migratory individuals, are all critical to survival and recovery of the species, and it is to the credit of the Service that many of these habitats over large portions of the range of these DPS's have been recognized as such in this proposal.

In general, spawning and rearing streams included in the critical habitat proposal seem reasonably well-selected and supported. However, there

are exceptions, and the Service should revisit their proposal in cases where the proposal appears in conflict with available empirical data. Moreover, gaps in coverage arise because the Service has chosen to designate individual stream segments rather than whole watersheds. To illustrate, we refer you to the well-documented comments provided to you by Gary Carnefix, of Missoula, Montana, about tributaries to Rock Creek drainage in the Upper Clark Fork drainage, Montana. Designation of several important tributaries in Rock Creek was omitted by the Fish and Wildlife Service. Mr. Carnefix has many years of graduate research experience on bull trout in Rock Creek drainage. I am quite familiar with the drainage and his research, as I served as his major professor and principle investigator of that research project. No doubt these same problems affect many other streams. If the Service intends to stick to its listing and mapping of tributary segments, then it should  
*Bull Trout Critical Habitat Comments, p. 2 of 3*

re-analyze the available data to ensure that such “tributaries of tributaries” are not also overlooked in other basins. All such water bodies hosting spawning and rearing populations of bull trout should all be specifically listed and mapped. Alternatively the Service should adopt generic language including as critical habitat all tributaries to the designated waterbodies that are known to contain, or have once contained, bull trout.

The proposed rule recognizes that floodplains and riparian areas have direct and indirect, “demonstrable effects” on conditions within the water body designated as critical habitat. This is an accurate and necessary reflection of the best available science. The rule should further specify that federal actions potentially affecting surface hydrologic, groundwater, or climatic conditions within the watersheds of critical spawning and rearing streams should trigger consultations and review. Further, federal actions that could significantly affect the hydrology of surface and subsurface waters or biological, chemical, and thermal conditions of surface and subsurface waters contributing to the river mainstems, lakes and reservoirs designated as critical habitat should trigger consultation and review.

Ideally, critical habitat designation ought to be linked explicitly to elements of the recovery plan, including demographics of populations comprising the DPS, spatial dispersion and distribution of populations and individuals, probability of long-term persistence and recovery of these populations, preservation of genetic integrity within the DPS, and recovery goals and delisting criteria. However, the proposed recovery plan appears to lack many of these elements, and as a consequence the opportunity to explicitly support certain biological aspects of the proposed critical habitat rule is diminished. We recognize this is a systematic weakness of critical habitat rules and especially recovery plans in the Services, but with

increasing public scrutiny of critical habitat designations, it becomes of much greater importance for the agency to provide a sound scientific rationale for its proposals. We will provide comments on the proposed recovery plan for bull trout elsewhere, but we encourage the Service to link improvements in the recovery plan with a more explicit rationale for the critical habitat designation. They can and should be mutually supporting.

We strenuously object to excluding habitat within areas covered by HCPs for critical habitat designation. HCPs have been negotiated and incidental take permits granted by the Service without the benefit of range-wide assessment of critical habitat, recovery measures, and recovery or delisting criteria. There can be no *a priori* assurance that an HCP prevents all forms of harm that may occur as a result of federal and federally linked activities within the covered area. For example, federally funded dams, diversions, or fish hatcheries, federally permitted mineral exploration or mining may adversely modify habitat within areas covered by existing HCPs, and yet are commonly beyond the scope of the activity anticipated when an HCP was granted. Moreover, there is a mix of covered and not-covered activity under the HCP granted for any specific area. Any general exclusion of HCP-affected areas from a critical habitat rule seems legally and biologically indefensible, ill advised, and, frankly, unnecessary. If private landowners

*Bull Trout Critical Habitat Comments, p. 3 of 3*

are largely unaffected by critical habitat designation, then it is senseless and completely without benefit to them exclude the covered lands from critical habitat designation. Many kinds of federal actions may still occur and affect those areas above and beyond the permitted activities of the HCP holders, and therefore it should only be to the benefit of HCP holders to ensure that their efforts to conserve habitat are not offset by harmful federal actions governing the same waters.

Thank you for the opportunity to comment.

Regards,

Chris Frissell  
Senior Staff Scientist

phone 406 883 1503  
fax 406 883 1504  
e-mail: <hanfris@digisys.net>

## **Comments on proposed bull trout critical habitat**

Gary Carnefix, M.Sc., Organismal Biology and Ecology, University of  
Montana 2002  
gcarnefix@aol.com  
115 Turner Ct. #3, Missoula, MT 59802-2836  
406-543-5518

**1. Omissions, Rock Creek Core Area only** (Upper Clark Fork subunit, Clark Fork Recovery Unit): the following waters are not proposed as critical habitat. All have some evidence of bull trout presence. None appear to fit criteria for exclusion described in the proposed critical habitat document. Several (especially Alder and Little Stony Creeks) seem far more “essential” to bull trout recovery than some waters that are included as proposed critical habitat:

- Alder Creek (tributary to Rock Creek)
- Little Stony Creek (tributary to Stony Creek)
- Tamarack Creek (tributary to Carpp Creek, tributary to Middle Fork)
- Grizzly Creek (tributary to Ranch Creek)
- Cinnamon Bear Creek (tributary to Rock Creek)
- Page Creek (tributary to East Fork; isolated above reservoir)
- Bobcat Creek (tributary to Rock Creek)
- Little Hogback Creek (tributary to Rock Creek)
- Kaiser Lake (upper Middle Fork drainage)
- Moose Lake (upper Middle Fork drainage)

**Rationale** (copied from my comments on proposed recovery plan):

**Core areas and “local populations”.** I confine my comments to the Rock Creek “Core Area” (Upper Clark Fork subunit, Clark Fork Recovery Unit), with which I am very familiar (Carnefix 2002; Frissell and Carnefix 2002). The basic approach here seems reasonable in the absence of detailed and extensive genetic data on the degree of reproductive isolation between individual spawning tributaries. However, “local populations” need to be more explicitly defined, in particular in terms of what known individual spawning tributary populations are considered to be included in a designated “local population”. There appear to be substantial omissions from the Rock Creek Core Area, some of which may be the result of the Service considering them as included in the designated “local populations” (if so, this needs to be explicit), while others appear to be serious oversights.

Combined evidence from telemetry, redd surveys (Lolo and Beaverhead-Deerlodge National Forests, unpublished data), fish sampling and other reports suggests bull trout presence and/or spawning in at least 26 individual tributaries, two lakes and one reservoir (East Fork) within the

Rock Creek drainage. Evidence for 23 tributaries is summarized in the two tables below (from Carnefix 2002). In addition to East Fork Reservoir, Kaiser and Moose Lakes in the upper Middle Fork basin are reported to contain migratory bull trout (MBTSG 1995). Unpublished MFWP data collected in 1959 also record bull trout presence in Bobcat, Cougar and Little Hogback Creeks, all tributaries to the Rock Creek mainstem (MBTSG 1995). A radio-tagged bull trout was re-located in Tamarack Creek during the 1998 spawning season (Carnefix 2002), where it or another bull was visually observed paired with another bull trout on suitable spawning gravel (G. Carnefix personal observation). Bowles Creek also has at least resident bull trout (MFISH 2002; G. Carnefix personal observation).

The most serious apparent omission, seemingly unexplainable by inclusion in a listed "local population", is Alder Creek (tributary to Rock Creek), in a virtual tie for third-highest redd densities reported in the Rock Creek drainage. Omission of Little Stony Creek (tributary to Stony Creek) seems important as well, although it may be considered as included in the Stony Creek "local population" (again, if so, this should be explicit). I note both Alder and Little Stony are omitted from proposed critical habitat as well. The omissions in need of explanation/justification or inclusion during revision are:

- Alder Creek (tributary to Rock Creek)
- Little Stony Creek (tributary to Stony Creek)
- Copper Creek (tributary to Middle Fork)
- Meyers Creek (tributary to Middle Fork)
- Carpp Creek (tributary to Middle Fork)
- Tamarack Creek (tributary to Carpp Creek)
- Grizzly Creek (tributary to Ranch Creek)
- Cinnamon Bear Creek (tributary to Rock Creek)
- Sand Basin Creek (tributary to West Fork)
- Bowles Creek (tributary to West Fork)
- Page Cr (tributary to East Fork; isolated above reservoir)
- Meadow Cr (tributary to East Fork below reservoir)
- Bobcat Creek (tributary to Rock Creek)
- Little Hogback Creek (tributary to Rock Creek)
- Kaiser Lake (Middle Fork drainage)
- Moose Lake (Middle Fork drainage)

Lacking local genetic data, the only concrete evidence I'm aware of that any of the tributaries above may NOT be a "local population" (in the biological sense of relative reproductive isolation due to high spawning tributary fidelity with only low levels of "straying") is a single radio-tagged bull trout that switched apparent spawning locations between the Middle Fork and its tributary Carpp Creek from 1998 to 1999, suggesting these two conjoining tributary populations might represent a single "local population". Alternatively, this case could BE the expected low level of straying between largely isolated "local populations". All other presumed spawners remaining in our Rock Creek sample through multiple years repeated migrations to the same spawning tributaries in subsequent years (Carnefix 2002).

**Table 2. Tributary use by radio-tagged Rock Creek bull trout, April 1998 – March 2000.**

Tributary (ordered upstream from Rock Creek mouth; tributary to Rock Creek unless otherwise noted)	Year(s) used	Presumed spawning by radio-tagged bull trout, yes/no (total # of fish)	Independent evidence of bull trout spawning (redd surveys, species presence or genetics sampling), yes/no	Maximum recorded redd density, redds/km (redds/mile) (# of years surveyed)	Summer maximum water temperature recorded near mouth (if monitored), °C
Ranch Creek	both	y (4)	y	2.2 (3.6) (5)	13.72
Welcome Creek	1999	n	y	6.9 (11.1) (5)	11.62
Butte Cabin Creek	1998	y (2)	y (pop. est'n 1984; 0 redds 1996-only)	-	11.08
Stony Creek	both	y (15)	y	8.0 (12.9) (8)	14.97
Little Stony Creek (tributary to Stony)	both	y (2)	y	6.0 (9.7) (2)	9.94
Upper Willow Creek	both	y (1)	y (single hybrid captured 1993)	-	20.80
West Fork	both	y (2)	y	0.4 (0.7) (1)	18.52

Ross Fork (tributary to <del>West Fork</del> )	both	y (1)	y	3.3 (5.3) (5)	23.53
Middle Fork	both	y (5)	y	3.4 (6.1) (8)	18.75
Copper Creek (tributary to MF)	both	y (4)	y	2.5 (4.1) (8)	17.09
Meyers Creek (tributary to MF)	both	y (1)	y	3.1 (5.0) (2)	11.76
Carpp Creek (tributary to MF)	both	y (14)	y	10.3 (16.6) (8)	12.61
Tamarack Creek (tributary to <del>Carpp Cr</del> )	1998	y (1)	n (never surveyed)	-	-
East Fork	1999	n	y ( <i>above East Fork Reservoir</i> )	<b>14.9</b> <b>(24)</b> <b>(6)</b>	18.47

**Table 3. Additional Rock Creek spawning tributaries indicated by USFS unpublished redd survey data.**

Tributary (ordered in upstream direction; tributary to Rock Creek unless otherwise indicated)	Number of years surveyed	Maximum number of redds found	Maximum density, redds/km (redds/mile)	Summer maximum water temp, °C
Gilbert Creek	3	6	5.0 (8.0)	-
Grizzly Creek (tributary to Ranch Creek)	1	2	2.5 (4.0)	-
Cinnamon Bear Creek	2	4	1.7 (2.7)	-
Alder Creek	3	41	6.8 (10.9)	10.98
Hogback Creek	2	7	2.5 (4.0)	10.62
Wyman Gulch	1	4	0.7 (1.1)	-
Sand Basin Creek (tributary to West Fork)	1	1 (probable)	0.1 (0.2)	*17.53
Page Cr (trib to EF; isolated above resvr)	2	3	0.7 (1.2)	-
Meadow Cr (trib to EF below resvr)	4	6	1.7 (2.7)	-

\*Temperatures through 2 August 1998 only; judged last reliable record before probe found floating on surface 18 August.

**References:**

Carnefix, G. 2002. Movement patterns of fluvial bull trout in relation to habitat parameters in the Rock Creek drainage, Missoula and Granite Counties, Montana. Master's Thesis, University of Montana. 185 pp.

Frissell, C. A. and G. Carnefix. 2002. Environmental correlates of spatial variation in spawning abundance of bull trout (*Salvelinus confluentus*) in Rock Creek basin, Montana, USA. Report prepared for USDA Forest Service Rocky Mountain Research Station, Boise, ID.

MBTSG (Montana Bull Trout Scientific Group). 1995. Upper Clark Fork River drainage bull trout status report (including Rock Creek). Montana Department of Fish, Wildlife and Parks, Helena. 40 pp.

MFISH (Montana Fisheries Information System) 2002. Montana Fisheries Information System Database Query web page. <http://nris.state.mt.us/scripts/esrimap.dll?name=MFISH&Cmd=INST>.

**2. Correction.** From proposed critical habitat document, p. 107:

(O) East Fork Rock Creek from its confluence with Rock Creek upstream 25.8 km (16.0 mi) to its headwaters and Meadow Creek from its confluence with East Fork Rock Creek upstream 7.9 km (4.9 mi) to a barrier cascade at the confluence of Dexter Creek provide spawning and rearing habitat for the East Fork Rock Creek local population of bull trout. East Fork Reservoir (170 ha (420 ac) at full pool) provides FMO habitat for this local population (MBTSG 1995e; USFWS 2002).

This description of East Fork Reservoir as FMO habitat applies only upstream of the dam, ignoring EF Reservoir Dam as an upstream migration barrier, i.e. EF Reservoir cannot currently provide FMO habitat to Meadow Creek (below reservoir) bull trout, although all of East Fork is designated a single "local population". This also calls into question consistency (with similarly fragmented populations elsewhere, e.g. mainstem Clark Fork recovery unit delineations) of designating East Fork bull trout as a single "local population". Finally, though I've seen both, the more logical and commonly accepted hydrography considers the East Fork a tributary to the Middle Fork (not Rock Creek); the confluence of the Middle Fork (below East Fork) with the West Fork then forms the Rock Creek mainstem. In fact, the Service is inconsistent in its usage, since the document continues from the preceding excerpt:

(P) Middle Fork Rock Creek from its confluence with East Fork Rock Creek upstream...

**3. The Service's interpretation of Section 3(5)(A) of ESA** distorts the plain meaning of the ESA language, creating needless complications to designation of critical habitat.

As part of our process of developing this critical habitat proposal, we evaluated existing management plans to determine whether they provide sufficient protection and management for the bull trout and its habitat such that there is no need for **additional** special management considerations or protection of areas that otherwise would qualify as critical habitat. **Section 3(5)(A)(i) of the Act defines critical habitat as areas on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.**

Adequate special management or protection is provided by a legally operative plan that addresses the maintenance and improvement of essential habitat elements and that provides for the long-term conservation of the species. We consider a plan adequate when it: (1) Provides a conservation benefit to the species (i.e., the plan must maintain or provide for an increase in the species' population, or the enhancement or restoration of its habitat within the area covered by the plan); (2) provides assurances that the management plan will be implemented (i.e., those responsible for implementing the plan are capable of accomplishing the objectives, have an implementation schedule, and/or adequate funding for the management plan); and (3) provides assurances the conservation plan will be effective (i.e., it identifies biological goals, has provisions for reporting progress, and is of a duration sufficient to implement the plan and achieve the plan's goals and objectives). **If an area provides physical and biological features essential to the conservation of the species, and also is covered by a plan that meets these criteria, then such an area does not constitute critical habitat as defined by the Act because the primary constituent elements found there are not in need of special management.** (pp. 37- 38, emphasis added)

I disagree with this interpretation. The fact that an area may already be receiving some or all of any needed "special management" doesn't change the fact that it is "in need of special management", and thus constitutes critical habitat. The Service's interpretation requires consistent insertion by USFWS (as above and in following examples) of "**additional**" to the ESA language to justify exclusion from critical habitat designation of areas already receiving some form of "special management" (e.g. HCPs,

some tribal areas). This is a clear distortion of the plain meaning of the ESA language. Also, as the Service goes on to note, this approach needlessly complicates determination of critical habitat, as a result of factors such as land exchanges, changes in LRMPs and RMPs, INFISH/PACFISH requirements, HCPs, etc. Identification of areas “in need of special management” should be an independent process from evaluating whether they may already be receiving the needed special management (which is, of course, also very important).

Regarding HCPs, specifically:

We have reviewed the three HCPs within the Columbia River basin DPS of bull trout and we have determined that they do not require **additional** special management considerations to conserve bull trout. Therefore, these areas covered by an existing, legally operative incidental take permit issued for bull trout under section 10(a)(1)(B) of the Act are, **by definition under Section 3(5)(A) of the Act**, not included in this proposed designation of critical habitat. (p. 47, emphasis added)

Based on our evaluation of these HCPs we have concluded, **pursuant to section 3(5)(A) of the Act**, that areas within these HCPs do not require **additional** special management considerations or protection, and consequently we have not included areas within them as proposed critical habitat... (p. 318, emphasis added)

Besides the distortion of ESA language and intent, including areas covered by federal plans in critical habitat while excluding areas covered by HCPs results in practical management absurdity (another argument for separating determination of a need for special management--and consequent critical habitat designation--from evaluation of whether such needed special management already exists or is adequate). Federal protection levels, while not necessarily adequate, are generally far greater than those in HCPs (Plum Creek's Native Fish HCP at any rate). The Plum Creek NFHCP and EIS **explicitly** rely on higher levels of protection on adjacent federal lands to justify the required (for permit issuance) finding that, under the HCP, "taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild."

**4.** On the related issue of **interpretation/application of ESA Section 4(b)(2)**, that the Service “may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat” (pp. 319-320).

The Service has long argued that critical habitat designation provides little if any protection because it is largely redundant to ESA Section 7 consultation requirements on federal lands and where a federal “nexus” exists on non-federal lands. The Service long used this argument to justify the very low proportion of critical habitat designations for listed species, but courts have not always accepted this argument, and have required that the Service designate critical habitat for many species. That the Service continues to hold this view (which may indeed have some legal and procedural justification) is evident both in press coverage of release of the proposed critical habitat and in the document itself. For example, from *The Missoulian*, 11/15/02 (by Sherry Devlin):

...agency officials were quick with reassurances that neither the critical habitat designation nor the accompanying bull trout recovery plan will change the way private land is managed...The mere designation of critical habitat provides “very little added protection,” said Diane Katzenberger, a spokeswoman for the Fish and Wildlife Service's regional office in Denver. “The benefit is that it alerts the public and other federal agencies to the importance of those streams and to the need to take those species into account.” But the only obligation the Endangered Species Act places on private landowners is that they not injure or kill a protected species, said Ann Vandehey, a biologist in the Fish and Wildlife Service's Helena office... “We don't expect there to be much change at all, and we don't think there will be any noticeable change for people who look on the map and see their farm or ranch is next to an area that's proposed as critical bull trout habitat,” said Mark Wilson, the agency's field supervisor in Montana.

And from the proposed critical habitat document:

Individuals, organizations, States, local and Tribal governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on Federal lands; require a Federal permit, license, or other authorization; or involve Federal funding. (p. 311)

Federal actions not affecting listed species or critical habitat, and actions on non-Federal lands that are not Federally funded or permitted, do not require section 7 consultation. (p. 314)

Nonetheless, the Service finds under Section 4(b)(2) that “the benefits of relieving property owners of an additional layer of approvals and regulation, together with the encouragement of conservation partnerships” outweigh the allegedly small or nonexistent benefits of critical habitat designation on HCP lands.

FWS seems to be trying to have it both ways: critical habitat designation isn't a significant additional burden, but HCP holders nevertheless need protection from this non-existent burden. The Service argues on one hand that critical habitat designation doesn't add protection on non-federal lands unless a "federal nexus" requiring consultation is involved, in which case Section 7 consultation would protect them anyway (i.e. additional protection resulting from critical habitat is unlikely). It takes pains to reassure private landowners that "we don't think there will be any noticeable change for people who look on the map and see their farm or ranch *[why not "or private timber land"?)* is next to an area that's proposed as critical bull trout habitat." But, the Service contradictorily finds that HCP holders need to be protected from this supposedly unlikely "additional layer of approvals and regulation" by exclusion from critical habitat designation. Which is it? Is critical habitat designation a burden to private landowners (from which HCP holders, almost uniquely, need protection), or not?

#### **5. Restriction of designated critical habitat to bankfull stream width.**

It seems beyond question that ecosystem processes and functions occurring outside a stream's bankfull width may be "critical" in determining its quality or suitability as bull trout habitat. Ample evidence exists of the importance of groundwater exchange (which may be directly influenced by connectivity of a stream channel with the adjacent floodplain) to bull trout spawning and rearing habitat, in particular (e.g.(Baxter and Hauer 2000; Baxter et al. 1999). Areas outside bankfull width may have both direct and indirect (e.g. shade effect on surface and soil temperature influencing groundwater temperature, which in turn influences stream temperature) influences on stream temperature, a critical bull trout habitat attribute (e.g.(Brosofske et al. 1997; Hewlett and Fortson 1982). The proposed critical habitat document explicitly acknowledges such influences and their potential importance, but then fails to explain or justify categorical exclusion of area outside bankfull width from critical habitat designation:

Adjacent floodplains are not proposed as critical habitat. However, it should be recognized that the quality of aquatic habitat within stream channels is intrinsically related to the character of the floodplains and associated riparian zones, and human activities that occur outside the river channels can have demonstrable effects on physical and biological features of the aquatic environment. (p. 52)

#### **References:**

Baxter, C.V., and Hauer, F.R. 2000. Geomorphology, hyporheic exchange and selection of spawning habitat by bull trout

(*Salvelinus confluentus*). Canadian Journal of Fisheries and Aquatic Sciences **57**: 1470-1481.

Baxter, C.V., Frissell, C.A., and Hauer, F.R. 1999. Geomorphology, logging roads, and the distribution of bull trout spawning in a forested river basin: implications for management and conservation. Transactions of the American Fisheries Society **128**: 854-867.

Baxter, J.S., and McPhail, J.D. 1999. The influence of redd site selection, groundwater upwelling, and over-winter incubation temperature on survival of bull trout (*Salvelinus confluentus*) from egg to alevin. Canadian Journal of Zoology **77**: 1233-1239.

Brososke, K.D., Chen, J., Naiman, R.J., and Franklin, J.F. 1997. Harvesting effects on microclimatic gradients from small streams to uplands in western Washington. Ecological Applications **7**: 1188-1200.

Hewlett, J.D., and Fortson, J.C. 1982. Stream temperature under an inadequate buffer strip in the southeast piedmont. Water Resources Bulletin **18**: 983-988.

**6.** Aside from the omissions noted above (including limitation to bankfull width and exclusion of essential habitat within HCPs), this seems a reasonably complete designation of critical habitat, at least for the Rock Creek drainage with which I am most familiar. Given: 1) evidence of genetic divergence to fine geographic scales and the local adaptation it is likely to contain; 2) inherent uncertainty in population persistence models; and 3) the acknowledged fact that many “local populations” may not have the potential to reach population sizes recommended by such modeling (e.g. Rieman and Allendorf 2001); and in deference to the precautionary principle; all the proposed critical habitat should be considered essential to bull trout recovery and the omissions noted herein (and any similar such omissions in other recovery units) should be added, or their exclusions clearly explained and fully justified scientifically.

#### **Reference:**

Rieman, B.E., and Allendorf, F.W. 2001. Effective population size and genetic conservation criteria for bull trout. North American Journal of Fisheries Management **21**: 756–764.

**7.** RE: designated wilderness areas: ‘Exotic species may not be stocked.’ (p. 41)

Isn't there still ongoing stocking of exotic species in some wilderness lakes?

**8.** Some examples of the following are needed for evaluating its validity:

We did not propose critical habitat for some small scattered occurrences or habitats that are in highly fragmented areas or no longer have hydrologic conditions that are sufficient to maintain bull trout habitat, as we do not believe, based on the best available scientific information, that these areas are essential to the conservation of the species. (pp. 50-51)