July 15, 2011


Paul Ausbeck
United States Department of the Interior
Bureau of Land Management
Roseburg District Office
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**Re: Scoping Comments on Roseburg District Secretarial Demonstration Pilot Project – Myrtle Creek, Little River, Middle South Umpqua/Dumont Creek**

Dear Mr. Ausbeck:

Please accept these comments from Pacific Rivers Council (PRC) concerning the Roseburg District Secretarial Demonstration Pilot Project and scoping document (DOI-BLM-OR-R050-2011- 0006-EA). PRC's mission is to protect and restore rivers, their watersheds and the native species that depend on them. We do this for the benefits that healthy watersheds provide to present and future generations, and for the intrinsic virtues of rivers themselves.

PRC has been actively involved in the Secretarial Pilot Projects since their inception in December of 2010 at both at the national and local levels. PRC currently has an active campaign to conserve and restore the Umpqua River Basin.

The stated purpose of scoping is to identify values, land uses and resources potentially affected by the proposed action in order to help the BLM identify alternatives that meet the project's purpose and need. Our comments focus on the need to protect aquatic and riparian resources and on information we believe is relevant to when silvicultural treatments in riparian areas are consistent with current management direction, including the Endangered Species Act.

**Summary of Purpose and Need**

>to apply "the principles of ecosystem restoration" developed by Drs. Johnson and Franklin through "variable retention regeneration harvest in a Moist Interior Forest Setting;

>to also apply the 1995 Roseburg District *Record of Decision and Resource Management Plan* (ROD/RMP);

>to accomplish the above "consistent with the forthcoming Northern Spotted Owl Recovery Plan."

> to contribute to economic recovery in Southwest Oregon. [1]

**Summary of Proposed Action**

- Variable retention regeneration harvest on 250 to 350 acres;

- Potential density management in a portion of 109 acres of associated Riparian Reserves and Riparian Management Areas

Potential units and streams affected include:

- Sections 31, 32, T. 28 S., R. 2 W – which encompasses a portion of the headwaters of South Myrtle Creek.

- Section 17 T. 28 S., R. 3W – which has portions of Buck Creek and Riser Creek running through it (Myrtle Creek watershed).

- Section 23 T. 28 S., R. 3 W –which has a portion of Mill Creek running through it (Little River)

- Section 25 T. 28 S., R. 3 W- which has Yellow Jacket Spring (Myrtle Creek) and Tuttle Creek (Little River) running through it.

- Section 4, T. 29 S., R. 2 W- which has Red Top Spring, and a portion of the Middle Fork Deadman Creek (Middle South Umpqua/Dumont Creek watersheds) running through it.

The proposed harvest units would be designed as follows:

- Retain approximately 30% of pre-harvest stands;
- Distribute retained trees throughout stands using aggregated blocks (2/3 of retention) and dispersed trees and clumps (1/3);
- Measure aggregated retention as a % of total unit area
- Measure dispersed retention as $ft^2$ of basal area
- Apply Survey and Manage provisions from the 2001 ROD.

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[1] Although economic recovery is not listed under the heading "purpose and need" per se, the desire to contribute to economic recovery in Southwest Oregon has been expressed by the Secretary of Interior and the Oregon Congressional Delegation, and the project is described as being "for the purposes of ecosystem and economic restoration" in the scoping cover letter. Presumably, the unstated goal of the Pilot is to determine what the reasonable expectations are for the production of timber using the Franklin/Johnson approach outlined.

- In Riparian Reserves, density management would only be applied in stands less than 80 years of age where it is determined treatments would accelerate or enhance achievement of objectives of the Aquatic Conservation Strategy.

## Key Considerations in Evaluating Potential Management Actions in Riparian Reserves

### A. Proposed Action Must Meet Riparian Management Standards

We support the project's stated initial limitation on the pool of riparian stands considered potentially appropriate for management to stands 80 years and younger. However, as the proposed action also recognizes, this presumably does not mean that 30% retention (i.e. 70% removal) of all riparian reserve stands 80 years and younger is appropriate, because the proposal specifies a determination that treatments will "accelerate or enhance achievement of objectives of the Aquatic Conservation Strategy."

We are concerned that the proposed action does not actually use the specific language of the key management standard applicable to riparian silviculture, which reads somewhat differently than does the scoping notice – although both would require that treatment be in fact restorative.

Within Riparian Reserves, timber harvest is allowed only as an exception to the general rule that it is not. A key management standard under the Northwest Forest Plan (which appears at page 25 of the 1995 Roseburg RMP ROD, cited in the purpose and need) is:

> *Timber Management - TM-1*. Prohibit timber harvest, including fuelwood cutting, in Riparian Reserves, except as described below. Riparian Reserve acres shall not be included in calculations of the timber base. * * *
>
> c. Apply silvicultural practices for Riparian Reserves to control stocking, reestablish and manage stands, and acquire desired vegetation characteristics needed to attain Aquatic Conservation Strategy objectives.

This standard effectively means that riparian silviculture is only authorized where there is a rational basis to find that without it Aquatic Conservation Strategy objectives will not be met (i.e. they are "needed to attain" them)[2]. It seems possible that a narrow focus on "acceleration"

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[2] These objectives are to "maintain and restore":
1. the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.
2. spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.
3. the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.
4. water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.

or "enhancement" could lead to an over-emphasis on speculative longer-term impacts and too little attention to the immediate adverse impacts.

### B. Use Best Available Science To Inform Riparian Treatment Evaluation

The determination as to whether objectives are best met through natural stand thinning, and natural wood recruitment to the stream channel or through some kind of management intervention should be based on best available scientific information[3] and closely linked to the attainment of conservation objectives at multiple scales. A strong scientific rationale for riparian restoration claims will be a primary consideration for PRC's lending its active support to management actions.

In summary, it is our understanding that the ecological cost to stream and riparian function of stripping riparian stands of a large number of trees in order to produce incremental gains in growth of a small number of larger trees is often far too high. The chance that some of those few remaining very large trees actually end up in streams and floodplains is quite small; the chance that a lot of those trees that were removed would have self-thinned and ended up creating stream and floodplain habitat is extremely high. This is a particularly bad trade in debris- starved stream systems – like those on the western Oregon BLM lands, including those affected by these pilots. Moreover, small streams – which are also the majority of streams - are most at risk from riparian reserve thinning. More, smaller wood sooner is far more effective and beneficial than furthering or deepening the deficit of dead wood for 50 more years in hopes that you recruit a

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5. the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage and transport.
6. in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing, magnitude, duration, and spatial distribution of peak, high, and low flows must be protected.
7.timing, variability, and duration of floodplain inundation and water table elevation in meadows and wetlands.
8. the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion, and channel migration and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.
9. habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

[3] Determining "best available science" is a synthetic process which gathers and considers all credible scientific information relevant to an issue or decision – including non-rigorous sources such as local or anecdotal knowledge, historical archives, etc. – and weighing the quality of data, analyses, and conclusions to reach a comprehensive picture of what science says on the matter at hand. Critically, it is a task for scientists, not non-scientists. Sullivan, P. J., and coauthors. 2006. Defining and implementing best available science for fisheries and environmental science, policy, and management. American Fisheries Society, Bethesda, Maryland, and Estuarine Research Federation, Port Republic, Maryland. [http://www.fisheries.org/afs/docs/policy_science.pdf]).

"Best available science" is *not* limited only to published and peer-reviewed scientific work, though these elements of scientific process can add credibility, other things equal. Nor, in cases of competing models, theory, hypotheses, conclusions, or differing expert opinion, does it mean one of these "winning out" over the others. Most especially, it is not selective consideration of scientific information that is interpreted to support a policy outcome that is preferred for non-scientific reasons while selectively excluding that which does not.

few slightly bigger trees in 70+ years. These concerns are in addition to those associated with all logging operations: increased soil disturbance and erosion risk, especially from roads, as well as incidental damage to leave trees and increased likelihood of spreading invasive weeds.

This view is supported by substantial literature, including but not limited to recent analysis emerging from the National Marine Fisheries Service on riparian thinning treatments, and may contravene the rationales presented for thinning treatments previously believed to be consistent with ESA protections. This analysis indicates that heretofore commonly applied thinning treatments impede, rather than accelerate, development of late-successional forest structure and associated habitat elements. *See e.g.* NMFS-Oregon State Habitat Office, "Issue Paper for Western Oregon," (July 23, 2010) (84pp) (especially Appendix 1 re: effects of riparian thinning by M.M. Pollock of the NMFS Science Center, Seattle).

The NMFS analysis focuses on impacts to dead wood availability, a focus that seems appropriate given that it is supported by a thorough analysis of all prevailing riparian processes and a valid recognition that dead wood is in most cases the crucial and limiting factor in both the short and long terms, for fish habitat. (This perspective is borne out by the watershed analyses that Drs. Franklin and Johnson point out are intended to guide management actions under the Northwest Forest Plan, although many past analyses have concluded -- without adequate basis -- that active management in riparian stands will ameliorate the problem faster than passive restoration). Standing and downed wood is both a key metric of late-successional forest condition and a vital functional element of forest ecosystem processes as well as plant, wildlife, and fish habitat.

Concerns pertaining to woody debris may be summarized as follows:

1) thinning reduces both standing dead and downed woody debris under most field conditions;

2) many small streams that are most affected by the prescriptions to thin do not require the largest woody debris to fulfill critical ecologically functions, and;

3) in streams where all sizes of woody debris are deficient (a majority of PNW streams), these streams can benefit imminently and substantially from small and medium-size woody debris that is recruited from the many self-thinning processes that operate in riparian forests in the absence of logging operations.

4) there may be significant stream shade and temperature impacts from canopy removal outside what the agencies perceive as the "primary shade zone."

In this same vein, we commend to you the following source:

Garman, Steven L.; Cissel, John H.; Mayo, James H. 2003. Accelerating development of late-successional conditions in young managed Douglas-fir stands: a simulation study. Gen. Tech. Rep. PNW-GTR-557. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 57 p.
http://www.essa.com/documents/WWETAC/VegetationModelsClimateChangeWorkshop/Gap/Garman%20et%20al%202003.pdf

("Results of this study illustrated two important relations between rapid development of late-successional attributes and long-term stand conditions. First, treatments that promote rapid development of an attribute will not necessarily produce the highest levels of the attribute over the course of a rotation. In this study, treatments providing rapid development of live, late-successional attributes generally produced relatively lower densities of shade-tolerant stems, lower amounts of Douglas-fir basal area, and fewer snags and logs over a rotation compared to other treatments."

**C. Key Findings of Applicable Watershed Analyses: Large Wood and Pools Too Low, Road Impacts and Sediment Too High**

We urge the BLM to consider Key Findings of the applicable Watershed Analyses regarding watershed, riparian and instream conditions, the presence of native fish, including ESA protected species, and the need to reduce road impacts.

Information in watershed analyses can tell a compelling story about what the restoration needs of a stream or watershed are. In the Myrtle Creek Watershed, it is clear that a key focus of aquatic and riparian restoration work should include increasing the amount of LWD; the BLM must determine based on current science whether and where active intervention best meets these needs and comports with current management sideboards.

We include here some excerpts from the Myrtle Creek Watershed Analysis and Water Quality Restoration Plan:

*"…Overall aquatic habitat rating for upper South Myrtle Creek is Fair. The aquatic habitat data reflects the impacts from the land uses. Habitat components lacking in upper South Myrtle Creek include the number of LWD pieces and the volume of LWD in fish- bearing stream reaches, especially those occupied by anadromous fish (i.e. upper portion of reach number five through reach nine). The lack of deep pools (greater than one meter in depth), the relatively high amounts of silt, sand, and organics (i.e. fines), and the lack of future recruitment potential of LWD into the stream reaches accessible to anadromous fish (i.e. reach numbers five through nine) are all limiting factors in upper South Myrtle Creek. …"(pg 147).*

*"Winter steelhead and resident rainbow trout (Oncorynchus mykiss), fall and spring chinook salmon (Oncorynchus tshawytscha), coho salmon (Oncorynchus kisutch), and sea-run and resident cutthroat trout (Oncorynchus clarki) have been documented by the Oregon Department of Fish and Wildlife (ODFW) using streams in the Myrtle Creek WAU…Distribution limits are determined by the extent fish are able to migrate upstream. Natural waterfalls, log or debris jams, beaver dams, and road crossings are potential barriers to fish migration. Other barriers to fish migration may occur because of water quality impairment, such as high or low pH, or high water temperatures." (p 136)*

*"Random coho spawning surveys were conducted by ODFW in the Myrtle Creek WAU from 1996 to 1999. Coho salmon were using spawning habitat in North Myrtle Creek and South Myrtle Creek, as well as some tributaries of both creeks. Smolt trap data collected in Myrtle*

*Creek from 1997 to 2000 indicated the number of coho salmon smolt emigrating fluctuated. The limited amount of data is insufficient to estimate the coho salmon population trend." (p139)*

*"Historical habitat conditions along the upper South Umpqua River were used to make a general comparison to the historic conditions in the Myrtle Creek WAU. The old-growth forest conditions noted along the upper South Umpqua River probably occurred in the upper elevations of the Myrtle Creek WAU. The forested conditions provided shade to the streams, bank stability, instream large wood, and flow regimes that maintained frequent deep pools. The aquatic habitat conditions have probably decreased compared to historic conditions in the Myrtle Creek WAU based on the amount of timber harvesting and road construction that has occurred and the data in the aquatic habitat surveys.*

*Timber harvesting has occurred in many drainages in the Myrtle Creek WAU affecting the amount of large woody debris. Large trees, generally greater than 24inches in diameter that enter the stream channel provide habitat for fish and other aquatic species. Hardwoods became the dominant tree species along some streams after the riparian areas were harvested. Conifer species are the desirable riparian vegetation type along fish-bearing stream reaches because they provide a longer lasting habitat than hardwoods. Larger conifers are also more likely to stay in place and intact compared to hardwood species, which generally are short-lived when they enter the stream (Meehan 1991).*

*Large woody debris and boulders are lacking in most streams in the WAU. Some streams in the upper portions of the WAU contain an adequate amount of boulders and large woody debris. Large woody debris and boulders are important for stream health and maintenance. Large woody debris helps maintain hydrologic conditions in the stream channel by creating pools, multiple channels, sloughs, and backwater areas and reconnect the stream with the floodplain (Meehan 1991). Large woody debris often provides fish resting and escape cover, maintains pool habitat, and creates channel complexity. Boulders create backwater areas, pools, and current breaks migrating fish use for resting while swimming upstream. Installing large woody debris and boulder structures would help restore healthy stream habitats.*

*Pool depths and frequencies are poor in most of the reaches surveyed by ODFW in the WAU. Pool habitat provides juvenile salmonids hiding and escape cover from predators, summer rearing areas, and cool, well- oxygenated water during low flow periods. Reducing the number of sediment sources and placing large wood in streams would help restore pool habitat quality and quantity in the WAU.*

*Aquatic habitat inventories conducted by ODFW indicated good sources of gravel occurred in the upper portions of the Myrtle Creek WAU. However, these gravels are heavily embedded with sediment in many areas. Sediment free gravel substrates are important for salmonid spawning and aquatic invertebrate habitat. Sediment can fill pools created by LWD and boulders and decrease water quality in streams. Clean gravels can be recruited and maintained by reducing sediment sources and placing large wood and boulders in the stream channel." (p 153)*

Myrtle Creek Watershed Analysis and Water Quality Restoration Plan, Roseburg District South River Resource Area, second iteration October, 2002.

**D. The ESA Limits The Impacts That The Pilots Can Permissibly Have On ESA-Protected Aquatic Species**

The available information clearly documents the presence of a federally threatened species (Oregon Coast Coho) and its habitat in the Myrtle Creek Watershed, raising the possibility that the proposed action could require consultation under the Endangered Species Act. In order for the agency to avoid consultation the action would have to have "no effect" on coho or its habitat.

We note that whether the stream segments located within the harvest units are fish bearing, or not, detrimental effects from treatment within harvest units, or in riparian reserve areas have the potential to affect coho habitat downstream.

Generally speaking, application of the management sideboards noted above to limit riparian silviculture to that needed to attain aquatic objectives should avoid management actions that contravene the agency's duties under the ESA. However, given the recent elevation of riparian thinning actions to an interagency science panel, there is clearly some disagreement over whether actions perceived as needed to meet long-term restoration goals by some federal managers could actually be damaging enough in the short term to run afoul of ESA jeopardy-avoidance obligations.

At the present time, the Siuslaw National Forest has chosen to move forward more cautiously than it had previously on riparian thinning, choosing to stay in the realm riparian activities it believes would have "no effect" on protected species. *See* SNF East Alsea revised EAs- http://www.fs.fed.us/nepa/fs-usda-pop.php/fs-usda-pop.php?project=25906 (providing at least 130 foot retention areas or two rows of conifers on occupied coho streams and critical habitat and at least 75 foot retention buffers on "likely to transport reaches up to 1000' upstream of coho and other measures).

**E. Importance Of Riparian Reserves**

We commend to you the findings of the following documents about the role of riparian reserves:

Carlos Carroll, Dennis C. Odion, Christopher A. Frissell (PRC), Dominick A. Dellasalla, Barry R. Noon, and Reed Noss, March 2009, available at www.klamathconservation.org, which were that:

*"reserves, or zones of low-intensity management, are a key element of such a management strategy which afford practical benefits that are hard to achieve by other means. Reserves function as control treatments that aid the assessment of unanticipated long-term management impacts. Reserves also function as practical guarantees that land management agencies will address coarse-scale planning issues despite a variety of potentially conflicting societal demands."*

Rhodes, Jonathan. J, July 2003. <u>An Evaluation of Current Protections and Proposed Changes to</u>

the Aquatic Conservation Strategy of the Northwest Forest Plan available at http://pacificrivers.org/files/acs/NWFP-Riparian-Protection.pdf

*"Adequate riparian protection is vital to protecting aquatic resources, as numerous assessments have concluded (Meehan, 1991; USFS et al., 1993; Rhodes et al., 1994; Henjum et al., 1994; CWWR, 1996; USFS and USBLM, 1995; 1997a; b). The failure to adequately protect these areas results increases in the extent, intensity, and duration of aquatic degradation.*

*Riparian areas provide a variety of functions essential to protecting water quality, channel form, aquatic habitat conditions, and the survival and production of salmonids and other sensitive aquatic biota. Among the most vital riparian functions are the recruitment of LWD, thermal regulation, bank stability, hydrologic regulation, and sediment detention and storage (Meehan, 1991; USFS et al., 1993; Rhodes et al., 1994; Henjum et al., 1994; CWWR, 1996; USFS and USBLM, 1997a; b). These functions are especially critical in watersheds subjected to grazing, mining, and logging and associated activities, because these activities damage riparian conditions, if not adequately restricted. These activities also increase aquatic damage when they occur outside of riparian areas, although adequate riparian protection can ameliorate some of damage caused by upslope impacts. Water quality and fish habitat cannot be protected without protecting riparian areas. Although upland ecosystems must also be protected, there are no measures that can serve as a surrogate for adequate riparian protection, in the protection and restoration of aquatic resources.*

*There are four primary factors that determine the efficacy of riparian reserves in protecting aquatic resources from continuing damage. First, the riparian reserves must be wide enough to provide the functions essential to the protection of aquatic resources. Second, protections within these reserve widths must be adequate to protect against damage to riparian processes within the reserves and to aquatic resources. Third, the degree of protection provided by reserve widths and protection over the entire channel network is a critical concern. The failure to adequately protect the entire channel network, and especially headwaters, will result in continued degradation due to channel linkages. Damage to headwater channels ultimately translates into cumulative damage to downstream channels. Fourth, the condition of riparian areas within reserves is also a major element in their function. Riparian areas that have been damaged by activities such as roads and logging do not provide the same level of aquatic resource protection as fully functional, undamaged areas. Damaged areas within reserves also serve as sources of on-going degradation.*

Thank you for your consideration of our input.

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