



ONRC UPDATE

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A Monthly Newsletter from UW Olympic Natural Resources Center

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UW
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DIRECTOR'S MESSAGE

A combination of global trends and regional forest land use policies has brought into question the long term viability of maintaining private forest lands in the Pacific Northwest. The squeeze between the world trend of relatively low log prices and the relative high cost of owning and managing forest land in the region creates a powerful incentive for landowners to convert to non-forest use. The result is a steady eroding of our forest land base (urbanization). Many in the conservation field view this situation as the single most important threat to our natural environment. More sophisticated attitudes about the value of commercial forests in the land use matrix are emerging.

We are finding ways to partner with others who are concerned about this issue. The Rural Technology Initiative (RTI) at the UW College of Forest Resources (CFR) works to provide technology-based

tools to non-industrial private forest (NIPF) landowners so they might better cope with the increasing difficulty of maintaining viable commercial family forests. Where the mission of RTI overlaps with that of UW ONRC, we share support of project staff or collaborate on research design and development.

However, the powerful incentives to convert forest lands are not unique to small forest landowners. Large industrial forest landowners are also feeling the pressure. Weyerhaeuser Company, for example, has recently divested large tracks of forest land in Washington State. Other long tenure forest companies are considering similar actions.

What can be done? That is the subject of a sophisticated collaboration among a seemingly diverse group that nevertheless shares a common interest. UW ONRC and RTI are working with Brian Boyle, who is developing

the Environmental Forum at CFR. Boyle is bringing together public-private partnerships with an aim to slow forest conversion. Partners include non-governmental organizations such as the Cascade Land Conservancy, The Trust for Public Land, and The Nature Conservancy. Also included are the bond buyers, brokers, and portfolio managers from the finance industry. Legal advisors, state & county government, tribal interests, and large land owners are involved.

Everyone at the table has an interest in saving Washington's commercial forest land base. The University of Washington along with UW ONRC can make significant contributions. UW ONRC is helping to organize a small, top level conference scheduled for next fall to begin the development of strategies to meet our common goal.



John Calhoun

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OESF Corner

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The conservation objectives of the Riparian Strategy for the Olympic Experimental State Forest (OESF) state that Washington State Department of Natural Resources (DNR)-managed lands within the OESF shall be managed to:

1. Maintain and aid restoration of the composition, structure, and function of aquatic, riparian, and associated wetland systems which support aquatic species, populations, and communities;
2. Maintain and aid restoration of the physical integrity of stream channels and floodplains;
3. Maintain and aid restoration of water to the quantity, quality, and timing with which these stream systems evolved (i.e., the natural disturbance regime of these systems);
4. Maintain and aid restoration of the sediment regime in which these systems evolved;
5. Develop, use, and distribute information about aquatic, riparian, and associated wetland-ecosystem processes and on their maintenance

and restoration in commercial forests.

Through out the life of a 30 to 40 year old harvest unit many changes have occurred to the forest practice regulations. A large number of important riparian areas now exist across the landscapes that were disturbed from previous timber harvest. Fortunately, these previously harvested zones have regenerated with trees in most cases. Unfortunately, many of these zones consist of dense conifer stands with too many trees, limiting the growth potential of the trees themselves and any plant community on the forest floor.

Thinning dense riparian stands by removing the smaller diameter trees creates space and enables the residual trees to grow larger in a much shorter time frame than not thinning. Old forest structures can be produced decades sooner by applying thinning treatments to these stands. Larger trees provide longer-lasting course woody debris when they fall into the water. Course woody debris creates pools, helps store gravel in the streambed, and protects the bed and banks of streams from erosion. Dense conifer stands self thin from competition stress and tend to create small dead trees

which crumble from the top down and contribute less wood to the adjacent stream. Thinned stands produce trees with diameters and root mass that will support the continued growth in height and lessens stand replacement blow down events. A



**Riparian Management Zone
Thinned in 2001**

larger and stronger root mass along stream banks help reduce bank erosion improving water quality. A thinned stand produces trees with more robust live crowns (green limbs) and adds more filtered shade to the stream. Less competition stress after thinning allows the trees to better ward off insects and disease such as *Armillaria.spp*, a root decay. Thinning allows more filtered sunlight to reach the forest floor allowing ground vegetation to flourish and diversify. The vegetation acts as a filter, provides direct shade, and creates habitat for insects.



**Riparian Management Zone
Nine Year After Thinning**