

# A POSITIVE VISION FOR LOCAL FORESTS

## WATER!

BY JEFFREY REYNOLDS

As a player of the violin, which is constructed with spruce and maple, I have some interest in the management of forest land. The majority of public land in Clatsop County is administered by the Oregon Department of Forestry. These State forests are owned by all of the citizens of Oregon jointly. They have been designated as lands to be managed for "the greatest common good for all the citizens of Oregon."

As a citizen of Oregon from birth, I qualify the opinions here with the fact I have personally seen and walked through tens of thousands of acres of forest ranging in age from 20 years to 200 years old, the majority composed of local 60-100 year old "self-regenerated second-growth" and "structured management" third-growth — with old-growth individual trees in deep creek valleys and steep ridges. I am an expert in the field of identifying and documenting causes of distress and mortality in conifers. Factors include attack by insects, parasites, fungi, as well as impacts from weather, creeks, roads, slope and geology.

These forests are primarily managed for timber volume production, with an imperative to generate cash through ongoing management activity. Here in the lush and rainy Pacific Northwest, conifers enjoy a remarkable growth curve from seedling through ancient age, and so it seems the justification for such intense extraction rates is referenced in terms of volume that is "regenerated" and therefore called renewable. Unfortunately, the volume in itself is not an indicator of other important and essential intrinsic hydrological and ecological values.

What is hydrology? A science dealing with the properties, distribution and circulation of water on and below earth's surface and atmosphere (*Merriam-Webster Dictionary*). I hope we can consider together the hydrological impacts of forest management activity. I implore the reader to recall the experience of moisture in forests, and to remember looking up into the treetops and watching clouds form in them and roll up out of the forest. This is a scene that does not occur without treetops!

First and foremost, let's simplify by considering the language of rules for timber management. While viewing a timber management plan, replace the word *timber* with the word *water*, especially when the word is followed by "volume." Consider this: we could manage for water volume production with the common sense value of maximizing quality (which incidentally would apply to both timber and water with my proposal).

The largest and oldest forest stands generate the most clear cold water, as observed by hydrologists and forest ecologists. The best way to create large old forests is by leaving the oldest growing stands alone. Some of the youngest stands require continued thinning, which is contrary to the notion that "thins" should be composed of the large old trees. Even if we manage for fire risk, we are still required by science to leave the oldest, largest trees and thin the youngest stands of their weakest members.

If indeed we are using a renewable resource, then the young stands should be renewed to their maximum water producing potential and change our priority for timber volume to water volume. Intrinsic hydrological values are maximized by allowing trees to grow for more than a century, with increasing returns on the investment of time with this "no-action" alternative for older stands as centuries roll by. Such a forest has a natural schedule for mortality of trees that is not cause for human intervention and is in essence self-managing.

Many more people could work in ecological symbiosis with the water producing forest. We would concern ourselves with selective harvest of individual conifers and hardwoods for the local production of value-added products such as musical instruments, furniture, doors and high-end construction materials.

The hundreds of people employed in extractive practices could be transformed into thousands employed in dozens of industries that favor the production of water. Our top world-



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wide seller would be our dazzling Pacific Northwest forest spring water. Water would be the jewel in the crown of industries. The activities of modern foresters who gather firewood, lumber for shingles, shakes, burls, poles and furniture hardwoods, edible mushrooms, florist supplies, herbs and medicines would form the appropriately local cornerstone for forest work.

Currently, gathering and wildcrafting are regulated by fees and permits that are restrictive to the poorest population of Clatsop County which is the among the poorest in Oregon, itself considered the poorest state in the country. Turning this around requires the sustained effort of those of us who are now making decisions, followed by the concurrence of future generations. We must take the long view — not of piles of logs waiting for ships to haul them elsewhere, but rather the vision of a forest managed for water.

This would first require a massive restorative effort that would lay the foundation for water production. Restoration work includes decommissioning of roads, replanting (especially of clearcuts), surveys to identify species and habitat associated with hydrology, and ultimately the construction of water collection and distribution facilities in key locations while protecting the core values of watershed restoration.

Meanwhile, local foresters in conjunction with national and international scientists would conduct survey and laboratory work for the purpose of learning more about plant, animal and fungi species that have undiscovered potential for human benefit — in the course of discovery promising the necessary *time* required for the surveyed ground to gradually evolve into older water-maximized stands.

Local contractors would be involved in the construction of violin, guitar and furniture factories supplied by ecological timber harvesting, such as horse logging. Older methods of harvest are less efficient but more ecologically sound and carry the potential of employing more people at the expense of machines (the "Luddite" principle).

Finally, try inserting the word *fish* or *salmon* in place of or next to "water." The reason is this: Salmon-run health is associated with forest ecology in the form of nitrogen. The source of the specific isotope of nitrogen found in older upland forest structure has been shown to be the bodies of ocean-going salmon!

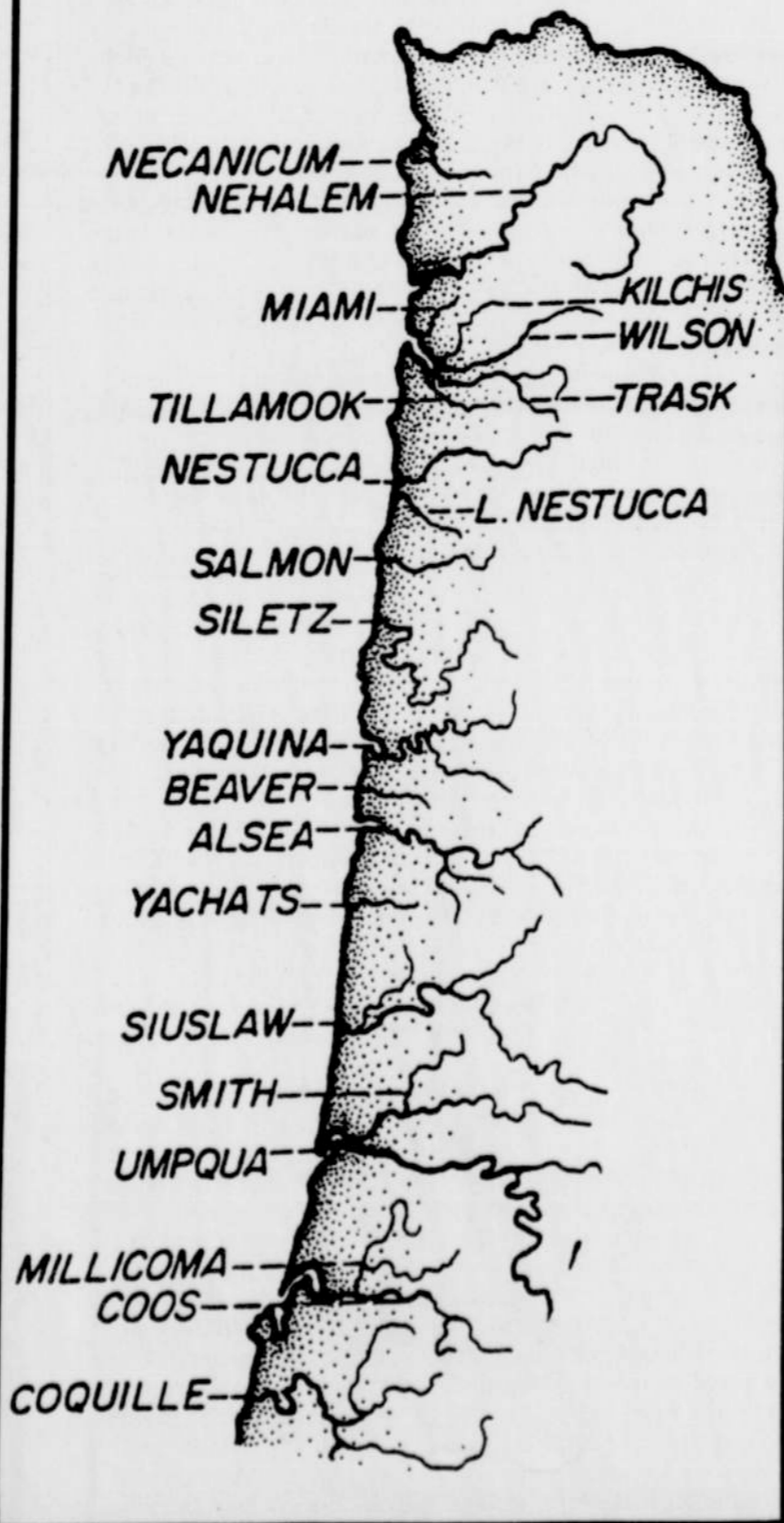
I wish to offer an alternative for management that includes and honors the power of children, who will be the inheritors of the decisions of nowadays adults. The crux of the problem is that we are talking about harvesting timber that grows best in spans that exceed the length of human generations. In these Coast Range forests, the long-term negative impacts of current activity are obfuscated as we clamor for cash in accord with that masterstroke of irony: school funding through timber receipts. Indeed! A crumb from the plate of the King's Table as our forests are gobbled up in the horrifically terrific feast of fools. Except I thought we were talking about the people's forests, not to be devoured at the whim of the mechanized arrogance of any king.

(For further information, refer to *Oregon GWEB Watershed Enhancement Manual* published by the State of Oregon, and to *Forestry & Salmon: A Report on Oregon's Coastal Watersheds and the Need for Forestry Reform* published by the Coast Range Association.)

Jeffrey Reynolds lives in Astoria and is among other gigs, violinist for the famous "Heather Christi Band". He writes that he is: "Violinist, forester, father, who has played hundreds of thousands of notes on a wood instrument, surveyed tens of thousands of acres of forest in the Pacific Northwest, and determined the cause of mortality or distress for many thousands of conifers. The thing is to "Love fiercely, love urgently, love like your ass is on fire" (from the memorial remembrance to deceased violinist Marty Jennings), which must be applied to the core quality of life values of children, water and forest ecology as it naturally stretches over centuries.

### Coastal Oregon Watersheds

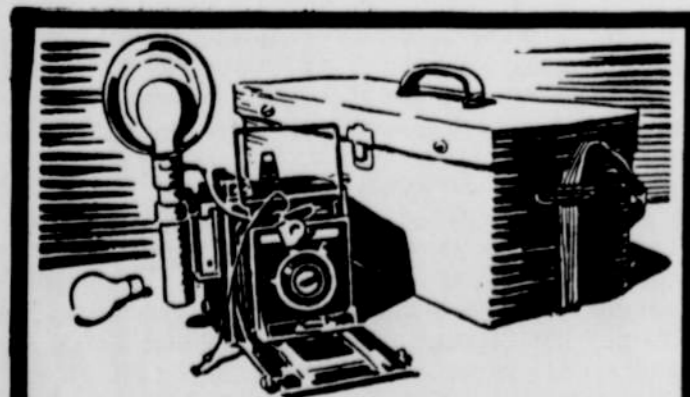
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