Roots of Prosperity

The Pacific Coast Watershed Partnership

THE MISSION OF THE PACIFIC COAST WATERSHED PARTNERSHIP is to promote the restoration of naturally functioning watersheds from headwaters to estuary. Success will be measured by an increasing capacity of Oregon and Washington coastal communities to support healthy ecosystems, diversified economies, and increased employment.

Through a collaborative learning network, the Partnership links knowledge and experience gained in each community to others across the region.

The Pacific Coast Watershed Partnership focuses efforts on a group of five Oregon and Washington coastal watersheds, as well as the Lower Columbia River. ●

www.pacificwatersheds.net

Map by Analisa Gunnell

THE NOTION OF "PARTNERSHIP" HARDLY seems innovative. Yet prior to the USDA Forest Service introduction of Community-Based Watershed Restoration Partnerships, there had been no strong national approach applied to public-private collaboration. We have long understood that the watershed is an optimal scale for addressing a host of environmental concerns. Now we are seeing that, by working together on a watershed scale, both public land managers and local communities can be more successful in achieving restoration goals.

In 1999, 16 large-scale watershed partnership projects were selected from among a group of more than 60 candidates to become national prototypes of progressive management. Each worked to build consensus on priorities and to forge new alliances among tribes, private landowners, local businesses, non-profit organizations, and federal, state, and local agencies.

For the Pacific Coast Watersheds, the word "partnership" took on added meaning. Six watersheds, sharing similar geographies and facing similar challenges, have been part of a group effort to replicate the best in restoration efforts among them. Recent honors awarded to both Oregon's Siuslaw Basin Partnership and Washington's Skagit River Basin Group testify that excellent work is indeed being accomplished along the coast of the Pacific Northwest.

In selecting the Siuslaw partnership from among finalists that spanned five continents, the Australia-based River Foundation commended the partners for fostering a spirit of cooperation among all parties. "If there's a common theme here," wrote the *Eugene Register Guard* on the Siuslaw's recognition, "it's that of the immense power and impetus that comes when diverse, even conflicting, interests are drawn into a common cause." I can't help but think that these distinctions reflect well on the direction the Forest Service has taken with the Community-Based Watershed Restoration Partnerships as a whole. When we work in concert, our achievements know no bounds.

The time has come to build a shared vision for restored ecosystems and regional economies along the Pacific Coast. Won't you join us?

Linda Goodman
Regional Forester, Pacific Northwest Region Six,
USDA Forest Service
Portland, Oregon

February 2005

WHY RESTORATION?

Perceptions of the natural world vary greatly. Some have viewed nature as a gift of the Creator, others as an organic machine or living ecosystem. These days, with the economy playing a pivotal role in our society, we might also turn to the language of economics to understand the natural environment.

Cast in economic terms, natural resources function as capital assets. As bank accounts offer interest or stocks pay dividends, healthy natural systems supply tangible and valuable benefits over time. Ecological services, such as clean water and climate regulation, satisfy our most precious needs. Along the west coast, the yearly return of Pacific salmon is another benefit sustained by the natural asset base.

Over the years, active management of the landscape has expanded steadily — and often at the expense of natural systems. While hard times have become apparent in some resource-dependent communities, it's easy to forget that, from the 2x4s in our walls to the cheese on our plates, we all live in resource-dependent communities.

But a new era is dawning. Just as the pioneers of previous centuries put in place the productive assets — like fences and homesteads — that increased the capacity of the land to deliver for them, today's pioneers of a new economy are reinvesting in the natural systems that ultimately form the basis of our prosperity.

WHAT IS RESTORATION?

"Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed."
—Society for Ecological Restoration,
The SER Primer on Ecological Restoration, 2002

Restoration begins with ecology – reviving ecosystem processes on the lands and waters of our homes. Along the way, through community participation, restoration becomes a social activity. When we account for nature's material benefits, restoration becomes an economic pursuit as well.

Six considerations that underlie successful restoration are presented below. Each focus basin of the Pacific Coast Watershed Partnership works in several of these areas. Here is a selection of their stories.

1. Intact Headwaters

DUNGENESS

From its source in the Buckhorn Wilderness, the Dungeness is one of America's most precipitous rivers, dropping an astonishing 4,000 feet along its first four miles. Loose soil on steep slopes like those along the Dungeness can impair water quality along an entire river course. When uplands remain forested, on the other hand, the landslides that do occur can contribute the large debris that sorts and stores sediment in rivers, making for fish-friendly waterways.

A primary threat to intact headwaters is the presence of poorly maintained roads. In the Olympic National Forest, the Forest Service has selected road work as a top priority. Working with partners – Clallam Conservation District, Washington State Salmon Recovery Funding Board, Washington State Department of Ecology, Federal Highways Administration, and Clallam County Title II program – they completed over ten miles of road decommissioning, and five miles of road stabilization work from 2000 to 2004.

2. Fish-friendly Waterways

UMPQUA

Splash dams to transport timber, logging along riparian banks, road building: Many practices have contributed to the deterioration of fish-friendly waterways. Years ago, in misguided attempts to support ailing salmon runs, engineering projects even removed large logs from streams. In fact, large wood plays a crucial role in stream ecology, establishing habitat for algae, aquatic invertebrates, and fish.

The Umpqua National Forest designated Little Rock Creek as one of the highest priority sub-basins for restoration. The creek's natural hydrologic regime had been broken and the creek bed scoured down to bedrock. To remedy the situation, the Forest Service, working with partners that include the North Umpqua Foundation and Umpqua Watersheds, placed more than 700 pieces of wood in eight miles of stream. The retention of intact uplands would, over time, accomplish this type of restoration work naturally.

3. Connected Streams & Floodplains

As settlers sought more land for agriculture and homesteading, they often drained, diked, or blocked off floodplains with tidal gates. Because floodplains and nearby wetlands provide valuable habitat for salmon, waterfowl and other species, many are now being utilized less productively than if a natural flow of water were reestablished.

LOWER COLUMBIA

The Columbia River Gorge National Scenic Area is working with partners – including Ducks Unlimited, the Bonneville Power Administration, the National Fish and Wildlife Foundation, and the Lower Columbia River Estuary Partnership – to restore 1400 acres at the confluence of the Sandy and Columbia rivers. On lands that had been used for cattle grazing, the partners are reestablishing wetlands, removing invasive species, reconnecting tributaries to the floodplain, replanting native species, and recreating 600 acres of gallery riparian bottomland forest.

4. Complex, Mature Forests

With the majority of the region's older forests already harvested and replanted, many dense stands of younger trees now checker the landscape. These younger, even-age forests lack the diversity, downed wood, and canopy gaps that provide good wildlife habitat and contribute to overall forest health. By thinning these younger stands, we can help them to develop complex, mature structure more quickly and reduce the risk of catastrophic disturbance from fire, wind, insects, and disease.

COQUILLE

The Coquille watershed, like others around the region, has a lot of work on its hands. 22,000 acres of younger trees on National Forest lands within the watershed now require attention. The Crown Prince thin pictured here is removing smaller trees in the Coal Creek sub-watershed.

5. Communities Attentive to Their Watersheds

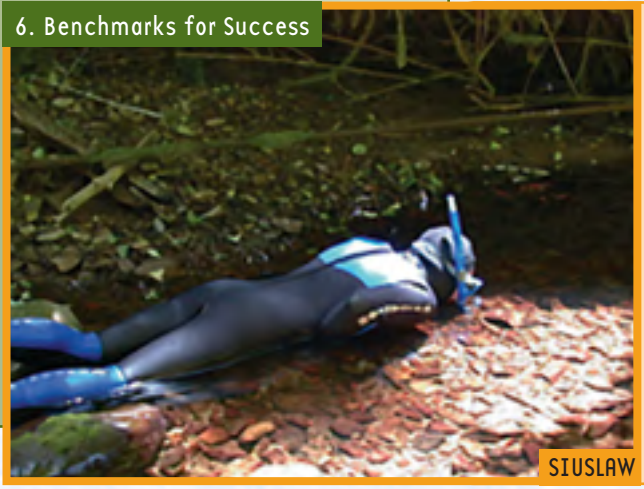
SKAGIT

As consumers, as citizens, and as private landowners, the choices we make can greatly affect watershed health. Many organizations are working to raise awareness and collaboration around watershed issues. In the 3,100-square mile Skagit watershed, situated between the region's largest metropolitan areas – Seattle, Washington and Vancouver, British Columbia – the watershed council counts a total of 38 member organizations.

Council members have prioritized their restoration efforts, targeting projects and locations where they will get the biggest payoff. "Working together in a way that gets things done is not easy," admits Chairperson Shirley Solomon, "especially in a partnership of the big tent variety that this council represents. Interests and world views cannot but collide at times. Still, who among us would argue against working together?"

Our understanding of ecological restoration progresses through careful monitoring. A project in the Siuslaw's Bailey Creek uses the "paired basin" method of comparing rates of fish returns before and after restoration work with those of similar basins over the same period. Salmon numbers in Bailey Creek jumped 33% from 2002 to 2003, while salmon returns to three other similar basins averaged a net decline.

6. Benchmarks for Success



SIUSLAW

Some fisheries biologists caution, though, that a truer gauge of our watersheds' ability to nourish healthy salmon populations would be by counting juveniles, before they head out to sea. For the last fifteen years, a public-private restoration partnership in the Siuslaw's Knowles Creek has emphasized a whole-basin approach to restoration and been monitoring juvenile salmon productivity through snorkel surveys.

PATTERNS OF SETTLEMENT

For thousands of years before the arrival of Lewis and Clark, native peoples of the Pacific Northwest manipulated the landscape to serve their needs. This subsistence economy supported social diversities and population densities that testify to the region's historical wealth of natural resources.

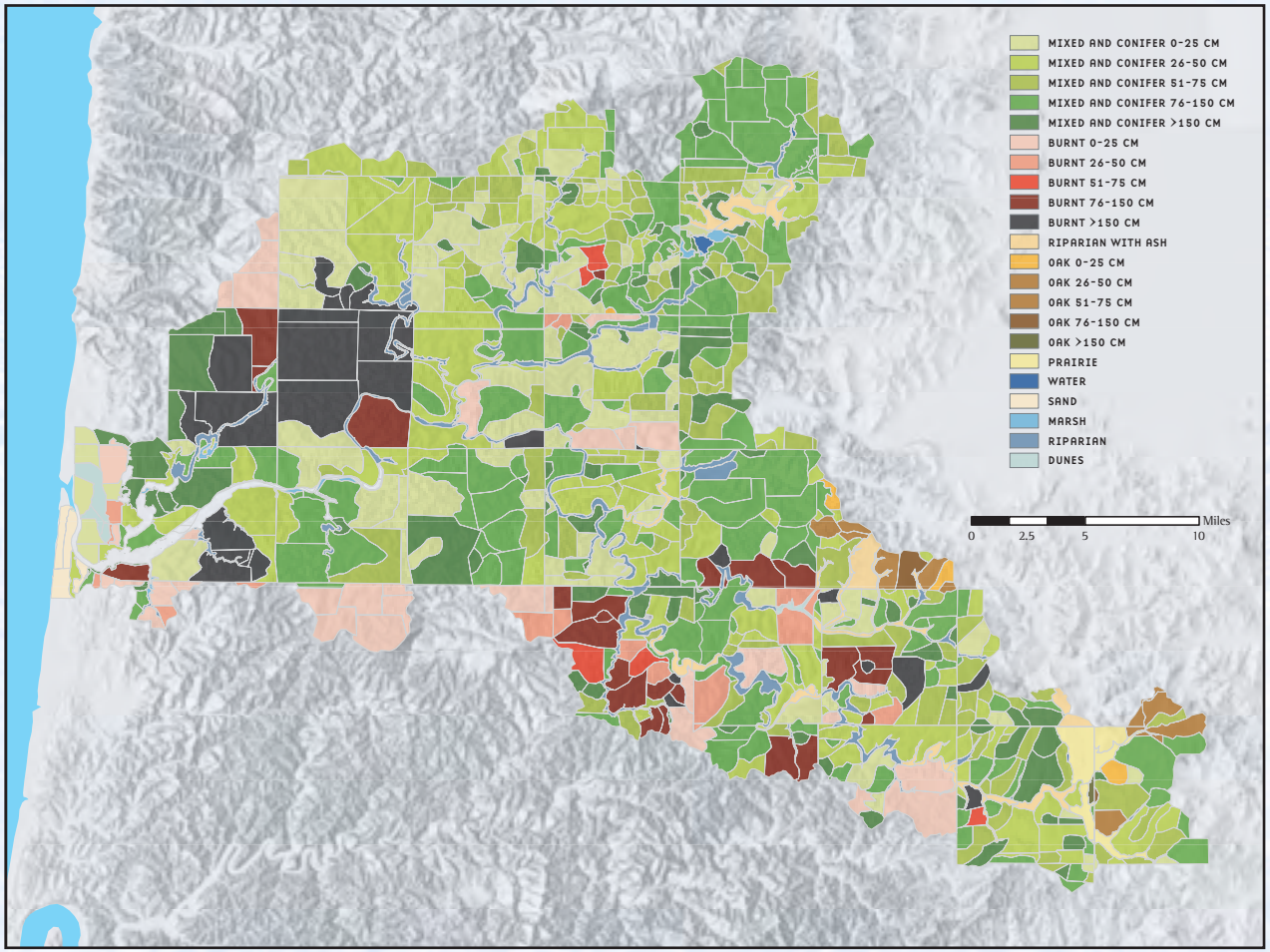
Beginning in the mid-1800s, new settlers brought vastly productive changes to the region's economy. But as the industrial economy carried the region through the 20th century, few along the way noticed the toll exacted from our lands and waters.

The subsistence and industrial economies each imply a specific relationship of people to nature. Today, restoration offers a third way that blends the best of both. A restorative economy recognizes that our prosperity is bound up with that of the land and employs our best science and technology to our stewardship of it. By replenishing the richness of our forests and fisheries, restoration builds the foundation of a new economy.

Forest Capital in the Siuslaw: Standing Volume, 1890

Zooming in to one of the Partnership focus basins, historical data reveal large stretches of intact forestlands. Even following the Umpqua Fire of 1846, which burned portions of the western Siuslaw basin, 1890 data from the Government Land Office classify 31 percent of the Siuslaw as having the larger trees – greater than 75 centimeters in diameter – that best support fish and other species. A hundred years later that figure had decreased to 8 percent. Looking at only coniferous classifications for the same size trees and over the same period, the drop was from 30 percent to 2 percent.

Map by Charley Dewberry



The historical abundance of salmon returning to Washington and Oregon coastal watersheds, based on early cannery records, totaled over 28 million fish each year.

Photo courtesy of Siuslaw Pioneer Museum, Florence, Oregon

MEASURING OUR IMPACT

"I set out on this ground, which I suppose to be self evident, 'that the earth belongs in usufruct to the living'."
—Thomas Jefferson, letter to James Madison, 6 September 1789

At the dawn of our Republic, when Thomas Jefferson wrote of relationships between generations and to the natural world, he relied on the language of law. "Usufruct" is a Roman legal concept that defines the rights and responsibilities of asset managers. It stipulates that tenants may enjoy the harvest and full use of the land but may not impair its future productivity. Jefferson implies that we are but tenants on this earth, each for the length of our lives.

The idea is "a great one" replied James Madison. Yet Madison cautioned that the "title" enjoyed by the living pertains to natural assets only, whereas improvements made by previous generations "form a charge against the living who take the benefit of them." Indebted to our forbearers for their labors, yet obligated to our descendents to pass on an undiminished natural bounty: Our founding fathers touched on basic principles of what we now often call sustainability.

In the 21st century, human assets – built environments and financial instruments – have been stockpiled at the expense of the earth's natural capital. The decline in standing timber volume on the region's forests is but one indicator of our collective impact upon this landscape, of the redistribution of wealth from natural to financial accounts.

One implication of this economic shift is the reduced flow of income from a diminished natural asset base, or conversely, the improved income stream that would result from a revitalized asset base. Say, for example, that a restoration group's efforts are able to augment future salmon returns by just one fish per year. The value accrued is not the $20 price of a single fish. Over 80 years, a figure that we might take to be the lifetime of a tree before harvest, those annual fish would be worth nearly 400 of today's dollars – a truer reflection of the value of the restoration efforts than the first year's benefit alone.

These days, the value of nature's services is also heightened by the declining quantity of intact landscapes. But it can be difficult to translate these benefits – services such as water purification and carbon storage – into financial terms. Price tags for the public benefits that stand to be lost are not attached to each acre logged or each road paved.

Markets for natural services are possible though. A variety of national and international proposals, for example, aim to utilize financial mechanisms to reduce emissions of carbon dioxide and thereby help stabilize the earth's climate. Some include provisions that would allow forestland owners to sell credits for the carbon stored by standing forests. By creating an incentive to leave trees standing and providing an alternative source of income for communities in the Pacific Northwest, such proposals could greatly benefit the region. ●

MORE THAN FISH AND TREES

Restoration investments are already offering a much-needed boost to economies in transition. Taking measure of the stimulus provided by Oregon Watershed Enhancement Board restoration funding, a 2002 study finds that 80% of OWEB dollars stay in the counties where the work takes place. Private contractors and local non-profits, such as watershed councils, garner the largest block of funds. Then, as the money circulates within the community, it creates a multiplier effect: Each restoration dollar is estimated to generate roughly $1.65 to $2.50 of additional economic benefit for local residents.

Beyond the economic stimulus, other benefits of restoration include the personal satisfaction and civic pride engendered along the way. Restoration activities build community institutions. And perhaps most importantly, as we restore the natural processes of impaired ecosystems, we advance our understanding of the roles that people play in healthy ecosystem function. This is the knowledge that will enable our progress towards a more reliably prosperous future for everyone.

The Eichler Project on the Siuslaw National Forest combined forest thinning with other restoration activities. Community involvement has enabled successful implementation of new guidelines for stewardship contracting in the Siuslaw.

Photo by Marcus Kauffman

Volunteers with the Northwest Youth Corp work to restore a river bank, helping to protect water quality for fish and other species.

Photo by Steve Elliot

Barbara Ellis-Sugai and Johan Hogervorst describe the Siuslaw Basin Partnership's successful restoration efforts on Karnowsky Creek, a tributary to the Siuslaw River estuary.

Photo by Brent Davies

COMMUNITY ENGAGEMENT

"Restoration is a cultural and social process as much as a physical process."
—Johnny Sundstrom, Siuslaw Institute

"So much has changed in the way people relate, the ways that agencies relate, all sitting around the same table, talking about problems and working to design fixes to those problems," says Ray Kinney of the Siuslaw Soil and Water Conservation District. "There's a synergistic effect, in the whole society around here."

Kinney is describing the type of community involvement that has been crucial to the work of Oregon's Siuslaw Basin Partnership. In 2004, the group garnered international recognition, winning the Theiss International River*prize*. It was the first time in the six-year history of the competition that an American team had taken top honors.

Riparian revegetation efforts in the Siuslaw demonstrate the collaborative efforts on the ground. Over the past five years, the project has handed out 56,000 seedlings to nearly 250 private landowners throughout the basin. "Plant distribution is a way of creating connections throughout the watershed," says project leader Nancy Nichols. "It's kind of like a festival. People come to the community center and see everyone else getting trees. You feel the power of a bunch of people doing good work, and you feel good about your neighbors."

Community members are also assisting in decisions made for Siuslaw National Forest lands. Through the Siuslaw Stewardship Group, watershed residents have been working with the Forest Service to implement new national guidelines for "stewardship contracting." By contracting for services that combine forest thinning with other restoration work, the working group focuses objectives on the condition of the forest, rather than the value of the logs that are removed. In addition, earnings generated by subsequent log sales are retained by the Forest Service and the Stewardship Group, providing them with flexibility and funding to address a variety of other restoration needs.

Now, partners in the Siuslaw are seeking to assist businesses that might utilize the increased flow of small-diameter logs coming off regional forestlands. Candidates include value-added enterprises, such as furniture making, and large-scale industries, such as biomass cogeneration and ethanol production. With a three-year grant from the Environmental Protection Agency, partners including the Siuslaw National Forest, the Siuslaw Institute, the Siuslaw Watershed Council, the Siuslaw Soil and Water Conservation District, Ecotrust, and ShoreBank Enterprise will be working to bolster this market development and to help private landowners learn about both the need for active forest management in previously harvested areas and standards for good forest management that can open doors to new and growing markets. ●

RECOGNIZING SUCCESS

Sixteen Community-Based Watershed Partnerships around the nation have implemented broadly similar approaches to restoration. They emphasize important activities such as road maintenance or decommissioning, weed removal, and wetland rehabilitation, while adopting measures of success that include improved water quality and reduced fire risk. In the Pacific Northwest, one integrative measure of success figures prominently in public values: a return to healthy runs of Pacific salmon.

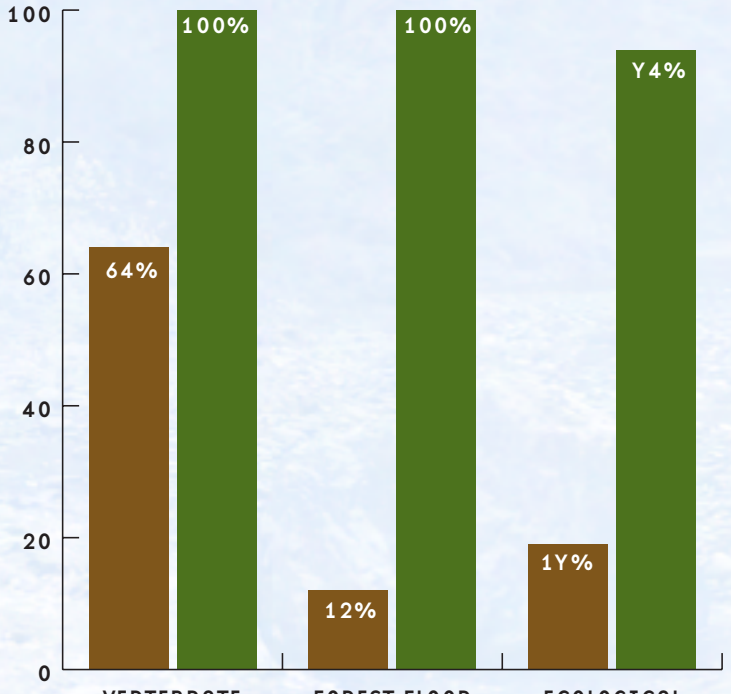
With 278 Pacific salmon runs extinct, some losses are certain to endure, and others will be difficult to ameliorate. Still, the resurgence of annual returns in the Siuslaw demonstrates the potential for recovery. Although the numbers of fish returning to spawn remain far below the half million that cannery records show for the early 1900s, they have rebounded from a mere few thousand in the mid-1990s to many times that number today.

We often seek immediate increases in fish numbers as a measure of restoration success. To sustain coastal economies, though, long-term and whole-watershed indicators may prove more meaningful. Ecological measures of progress will include the presence of intact uplands and the ability of the landscape to contribute large wood to salmon-bearing streams. These benchmarks reflect a restorative landscape that will help make resurgent salmon runs possible.

Comparing the Ecological Performance of Forest Management Practices

Computer modeling of forest growth and regeneration indicates that restorative forestry outperforms single-value forestry in supporting ecological functions and preserving species diversity. Measures of ecological performance are based on the last 100 years of 300-year modeling simulations on a 6828-hectare landscape in western Washington.

Carey, A. 2003. Restoration of Landscape Function: Reserves or Active Management? *Forestry* 76



A RESTORATIVE LANDSCAPE

"The long-term fate of many forest-dependent organisms will depend on activities and conditions in the unreserved portions of forested landscapes."
—David Lindenmayer and Jerry Franklin,
Conserving Forest Biodiversity, 2002

Picture spending far less to engineer habitat for salmon. Imagine surveying fewer timber sales for spotted owls, or any other creatures, yet still being able to do right by them. When we shift from managing for individual species to managing a landscape that fosters healthy species of all kinds — a restorative landscape — that day comes within reach.

Much of the Pacific Northwest's forestland has been aggressively logged only within the last century. Studying the re-growth of these young forests and modeling their future potential, forest ecologists are starting to better understand the consequences of different kinds of forest management. We are finding that single-value forest management — focused solely on short-term bottom lines — performs poorly compared with an alternative, restorative forestry in supporting ecological functions and a diversity of wildlife. One major difference between management types is the age at which the trees are harvested. While single-value prescriptions typically remove trees as soon as they are marketable, at 40 to 50 years, models of restorative forestry allow trees to stand twice that long and more. Studies indicate that over the long term such prescriptions can support most, if not all, the animals of the region's original forests, while also providing timber.

Restorative forestry performs well in other respects as well. The repeated thinning of trees over longer rotations supports more jobs and contributes to increased economic activity. Though it might seem counter-intuitive, modeling indicates that restorative forestry also produces more wood. In the Douglas-fir region of the Pacific Northwest, trees continue to add significant volume long past a 50-year harvest age. In fact, one regional study of long-term forest management on 17 forests ranging from 70 to 117 years old found that none had reached their peak productivity. Yet interest rates and other economic factors still encourage landowners to harvest younger trees. Society's financial incentives are not in line with our public values.

A primary strategy for protecting forest-dependent species has been to create reserves by placing some lands off limits to harvest. Research indicates that a whole-landscape approach — allowing active management on some public forestlands slated for protection, while adopting incentives to promote restorative management on private lands — can be more successful. The benefits to be gained suggest that many types of incentives to private forestland owners would be worth considering. As we have learned so often through the Pacific Coast Watershed Partnership, collaboration will be a key to our success. ●

A BALANCED PORTFOLIO

An abundance of forests and fish has long characterized the wealth of the Pacific Northwest. Throughout the industrial era, the region's natural resources fed the growth of our modern economy. If we were to map the flow of these resources over time, lines would run across the page from rural to urban coordinates.

Now, though our financial assets have grown, many of nature's accounts are in arrears. When we repay our debts to these lands and waters, we make an investment in the prosperity of future generations.

In the end, the region's natural abundance offers far more than mere monetary compensation, and the language of economics cannot encompass our connections to this place. For many people, trees and salmon are icons that represent the very reasons for coming here or continuing to call this place home. Learning to care for these forests and fish, so they continue to provide for us, is the essence of a restoration vision.

ENDOWING THE FUTURE

"Now is the time to focus on an ecology for the future... a future in which Earth's life support systems are maintained while human needs are met."
—Margaret Palmer et al., Science, 28 May 2004

The six focus basins of the Pacific Coast Watershed Partnership each rely on a variety of agency, organizational, and individual partners. Working together to revive ecosystem processes, they are rebuilding the natural capital of this region and establishing an endowment for the future. Other projects around the Pacific Northwest are nourishing social and economic foundations for restoration success. When we support the good work of these groups, we make an investment that enriches each of us, as well as our children.

RESTORATION ON THE GROUND:

A selection of organizations working within the six focus basins of the Pacific Coast Watershed Partnership

- Cascade Pacific Resource and Development Dept.
Contact: Karen Strohmeyer
541.757.4807 | cprcd@qwest.net

- Columbia River Estuary Study Taskforce (CREST)
Contact: Allan Whiting
503.325.0435 | awhiting@columbiaestuary.org

- Columbia Slough Watershed Council
Contact: Scott Bradway
503.281.1132 | scott.bradway@columbiaslough.org
www.columbiaslough.org

- Coos Watershed Association
Contact: Jon Souder
541.888.5922 | jsouder@cooswatershed.org
www.cooswatershed.org

- Coquille Watershed Association
Contact: Jennifer Hampel
541.396.2229 | jennifer.hampel@verizon.net
www.coquillewatershed.org

- Dungeness River Management Team
Contact: Shawn Hines
360.681.4664 | shines@jamestowntribe.org
www.olympus.net/community/dungenesswc

- Ducks Unlimited
Contact: Chuck Lobdell
360.885.2011 x18 | clobdell@ducks.org
www.ducks.org

- Lower Columbia Fish Recovery Board
Contact: Jeff Breckel
360.425.1555 | jbreckel@lcfrb.gen.wa.us
www.lcfrb.gen.wa.us

- Lower Columbia River Estuary Partnership
Contact: Scott McEwen
503.226.1565 x226 | mcewen@lcrep.org
www.lcrep.org

- Lower Columbia Fish Enhancement Group
Contact: Tony Meyers
360.817.9044 | cwfish@comcast.net
www.lcfeg.org

- Lower Columbia River Watershed Council
Contact: Margaret Magruder
503.728.9015 | magruder@clatskanie.com

- **North Coast Watershed Association**
Contact: Todd Cullison
503.325.0435 | tcullison@columbiaestuary.org

- **North Olympic Salmon Coalition**
Contact: Paula Mackrow
360.379.8051 | nosc@jefferson.wsu.edu
www.nosc.org

- **North Umpqua Foundation**
Contact: info@northumpqua.org
www.northumpqua.org

- **Northwest Straits Commission**
Contact: Tom Cowan
360.428.1085 | cowan@nwstraits.org
www.nwstraits.org

- **Scappoose Bay Watershed Council**
Contact: Dave Sahagian
503.397.7904 | sbwc@crpud.net

- **Sea Resources**
Contact: Robert Warren
360.777.8229 | info@searesources.org

- **Siuslaw Institute**
Contact: Johnny Sundstrom
541.964.5901 | siwash@pioneer.net
www.siuslawinstitute.org

- **Siuslaw Soil and Water Conservation District**
Contact: Eric Nussbaum
541.997.1272 | siuswcd@oregonfast.net
www.siuslawswcd.org

- **Siuslaw Watershed Council**
Contact: Todd Miller
541.268.3044 | coordinator@siuslaw.org
www.siuslaw.org

- **Skagit Fisheries Enhancement Group**
Contact: Alison Studley
360.336.0172 | astudley@skagitfisheries.org
www.skagitfisheries.org

- **Skagit Land Trust**
Contact: Molly Doran
360.428.7878 | trustmd@fidalgo.net
www.skagitlandtrust.org

- **Skagit River System Cooperative**
360.466.7228 | info@skagitcoop.org
www.skagitcoop.org

- **Skagit Watershed Council**
Contact: Shirley Solomon
360.419.9326 | skagitws@nwlink.com
www.skagitwatershed.org

- **Umpqua River Basin Watershed Council**
Contact: Bob Kinyon
541.673.5756 | info@ubwc.org

- **Umpqua Watersheds**
Contact: Patrick Starnes
541.672.7065 | patrick@umpqua-watersheds.org
www.umpqua-watersheds.org

SPURRING RESTORATION SUCCESS:

A selection of organizations and projects providing support for restoration efforts

- The **2100 Project**, an Ecotrust initiative, is communicating a vision for restorative forestry in the temperate rainforest region of the Pacific Northwest.
Contact: Bettina von Hagen
503.467.0756 | bettina@ecotrust.org
www.ecotrust.org/forestry

- The **Cities of Astoria** and **Forest Grove, Oregon** manage working forests that supply drinking water as well. Forest practices independently certified by the Forest Stewardship Council (FSC) ensure residents that their lands are managed for the long term.
Contact (Astoria): Mitch Mitchum
503.338.5173 x21 | mmitchum@astoria.or.us
Contact (Forest Grove): Scott Ferguson
503.222.9722 | tallforstr@aol.com

- The **Columbia River Inter-Tribal Fish Commission** is the technical support and coordinating agency for fishery management policies of the four Columbia River treaty tribes.
Contact: Jamie Pinkham
503.238.0667 | pinj@critfc.org
www.critfc.org

- **Ecotrust Market Connections** works to leverage market incentives for good forest management, independently certified by the Forest Stewardship Council (FSC).
Contact: Kent Goodyear
503.467.0752 | kent@ecotrust.org
www.ecotrust.org/forestry/markets

- The **Healthy Forests, Healthy Communities Partnership (HFHC)** gathers a network of over 60 land managers, businesses, and non-profits who are committed to building local, value-added markets for high-quality wood products. The Partnership is a program of Sustainable Northwest.
Contact: Karen Steer
503.221.6911 | info@hfhcp.org
www.hfchp.org

- **Northwest Indian Fisheries Commission** supports twenty western Washington Indian Tribes in their role as natural resource co-managers and works to promote cooperative efforts among all of the people of the Pacific Northwest.
Contact: Mike Grayum
360.528.4309 | mgrayum@nwifc.org
www.nwifc.org

- **ShoreBank Enterprise** is a non-profit, rural economic development corporation assisting entrepreneurs and organizations to build viable business and market ventures that improve the social and environmental conditions of rural communities.
Contact: Mike Dickerson
360.642.4265 | mdickerson@sbpac.com
www.sbpac.com

ENDNOTES

WHAT IS RESTORATION?

For strategic elements of restoration, see the Klamath Resource Information System:
www.krisweb.com/restore/strategy.htm

Siuslaw paired basin study:
Siuslaw National Forest. 2004. 2003 Monitoring Report for Enchanted Valley Stream Restoration.

FOREST CAPITAL IN THE SIUSLAW

1890 Government Land Office classification of Siuslaw vegetation greater than 75 centimeters in diameter includes 146,289 coniferous acres and 4,974 mixed acres. 1996 CLAMS classification of this vegetation consists of 9,163 coniferous acres and 30,533 mixed acres.

Government Land Office. 1876–1893. Field Notes of the U.S. Original Land Survey for Oregon. U.S. Government Printing Office, Washington D.C.

Ohmann, J. and M. Gregory. 1996. Coastal Landscape Analysis and Modeling Study. Gradient Nearest Neighbor (GNN) Vegetation Classes. USFS and Oregon State University.
www.fsl.orst.edu/clams/

MEASURING OUR IMPACT

For Thomas Jefferson's 6 September 1789 letter to James Madison, see the Constitutional Law Foundation:
www.conlaw.org/Intergenerational-II-2-3.htm

Among climate proposals, the McCain-Lieberman Climate Stewardship Act is one that includes forest preservation as a recognized means of carbon storage or "sequestration." For estimated effects of carbon trading on forestland values in the Pacific Northwest, see the Hancock Timber Resource Group, which concludes that values could increase by 20 percent:
www.htrg.com/htrg/research_lib/quart_letters/pdfs/Hti00Q4.pdf

Historic salmon abundance calculations:
Dewberry, C. 2001. The Development of Regional Priorities for Salmon Restoration in the Coastal Watersheds of the Pacific Northwest. Ecotrust.
www.inforain.org/mapsatwork/priorities/

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www.pacificwatersheds.net/economics/OWEBeffects.pdf

Hibbard, M. and S. Lurie. 2005. Understanding the Community Economic and Social Impacts of Oregon's Watershed Councils. Institute for Policy Research and Innovation.

Multiplier effect:
Hibbard, M. 2004. Personal communication.

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Ecotrust is a conservation organization committed to strengthening communities and the environment from Alaska to California — the place we call Salmon Nation. It is a land of great resilience, where rivers flow through the largest temperate rain forest in the world. Ecotrust articulates a vision of reliable prosperity in this region, creates and supports tangible examples of success, and grows constituencies for change. We work with native peoples and in the fisheries, forestry, and farming sectors to build a regional economy that is based on ecological and social opportunities.

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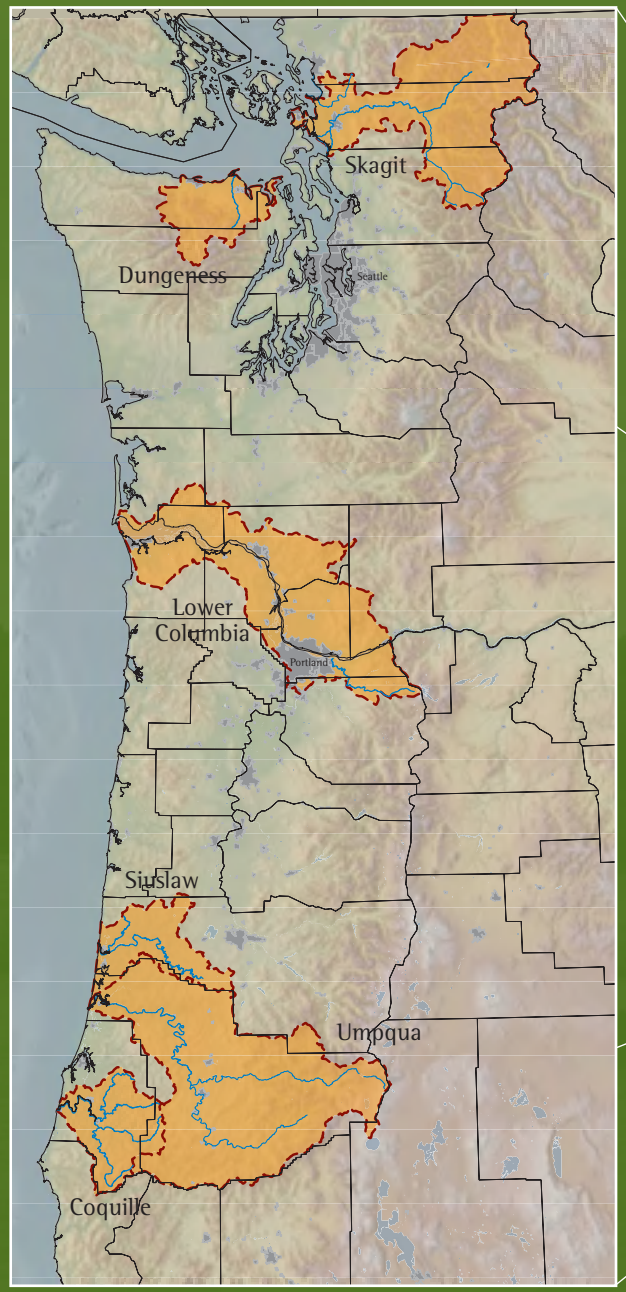

The mission of the Pacific Coast Watershed Partnership is to promote the restoration of naturally functioning watersheds from headwaters to estuary. Through a collaborative learning network, the Partnership links knowledge and experience gained in each community to others across the region.

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