

The Restoration Economy

Investing in natural capital for the benefit of communities and salmon



“Clean water, clean air, diversity of fish and wildlife all depend on healthy watersheds. As the restoration economy blossoms, the value of our investments are starting to be recognized in local communities across the state for its economic impact and benefits.”

—Tom Byler
Executive Director, OWEB

Restoring watersheds is a starting point for a different kind of economic prosperity, one where markets recognize that the well-being of our communities is inextricably tied to the welfare of our rivers and wild salmon.

Healthy watersheds provide abundant resources for Oregonians: clean drinking water, clean air, resilient salmon populations, and a variety of recreational opportunities. But did you know that healthy watersheds also mean healthy economies? This case study of Southwestern Oregon, an area hit hard by the economic downturn, illustrates how investing in watershed restoration does more than protect our rivers; it creates living-wage jobs and stimulates economic activity in rural communities, today and into the future.

Restoration as an industry

Restoration creates jobs. Restoration projects put Oregonians to work. Investing in habitat restoration can create more new jobs than comparable investments in other sectors of our economy (see Figure 2).² And, unlike other sectors, restoration jobs can't be outsourced to far-off places. In Southwestern Oregon, restoration projects have created jobs in construction, in technical fields such as engineering and wildlife biology, and in supporting businesses such as plant nurseries, heavy equipment companies, rock and gravel companies, and other area businesses. In the five-county area of Southwestern Oregon, total investments in 2,350 restoration projects supported 721–1,020 jobs (see Figure 1).¹

Restoration investments stimulate economic growth. Every dollar spent on salaries or supplies for a restoration project generates additional spending and economic activity. Economists model this 'multiplier effect' to determine how investments in restoration are re-circulated throughout the local economy. For example, a project to restore native plants along a stream will purchase supplies from a local nursery; the nursery, in turn, will hire workers and more supplies from area businesses. A person hired to remove invasive plants along a stream may spend money at a local restaurant; the restaurant, in turn, will hire cooks and waiters and order supplies from still more businesses. In the five-county area of Southwestern Oregon, \$64.3 million invested in restoration work generated an estimated \$113.7–\$141.1 million in economic output (see Figure 3).²

Restoration dollars are local dollars. An average of \$0.80 of every \$1.00 spent on a restoration project stays in the county where the project is located, and \$0.90 stays in state (see Figure 4).³ For example, of the nearly \$400,000 invested in the 2009–2011 rehabilitation of Little Butte Creek, near Medford, Oregon, 72% was spent in Jackson County, and 97% was expended in Oregon. In the case of the Little Butte Creek project, over half of those dollars went to salaries that directly benefit Oregonians.⁴

Figure 1. Five-county restoration projects: Estimated employment, 2000–2009 (2010\$)²
(Total includes jobs created in multi-county projects.)

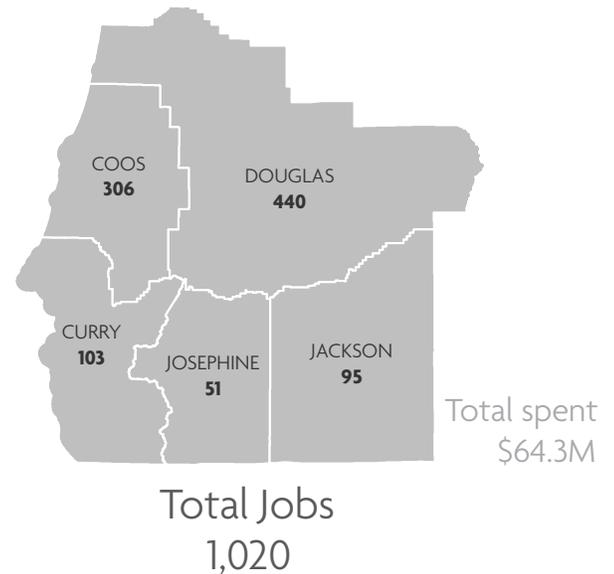
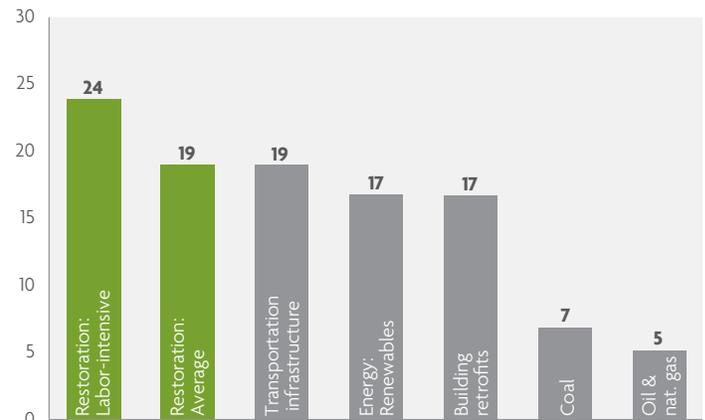


Figure 2. Average number of jobs per \$1 million of investment by select sector¹



“I hired an employee who'd been laid off from his previous job. When I talked with him about wrapping up restoration work this season he said, 'When you hired me, I was behind on my bills, and I want to let you know that I'm caught up on my bills, and I'm not apprehensive about the winter.'”

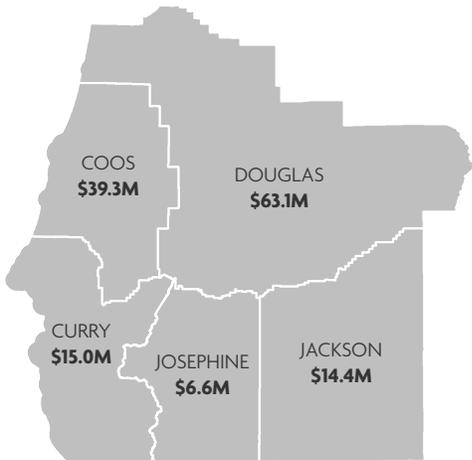
— Bill Leavens, L&S Rock Products, Central Point, OR



Restoration as an enduring investment

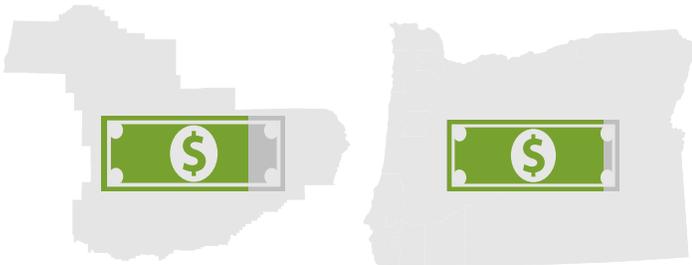
**Figure 3. Five-county restoration projects:
Estimated economic output, 2000 – 2009 (2010\$)²**

(Total includes output generated by multi-county projects.)



**Total Economic Output
\$141,100,000**

Figure 4. Restoration project funds retained locally³



**COUNTY
\$0.80 of
every \$1.00**

**STATE
\$0.90 of
every \$1.00**

Jobs and local spending are not all that the restoration economy offers.

Its value continues to accrue and pay out over generations. Resulting improvements in habitat function and fish and wildlife populations provide recreational and commercial opportunities as well as ecosystem services that are fundamental to our health, productivity, and quality of life.

For example, sport and commercial fishing for Rogue River salmon and steelhead are already big business in Southwestern Oregon, and habitat improvements intended to bolster fish runs promise to increase sport and commercial fishing opportunities in the coming years.

\$16 million
estimated annual value of sport fishing for Rogue River salmon and steelhead⁵

\$1.4 million
estimated annual value of commercial fishing for Rogue River salmon and steelhead⁵

Of course, not all things we value can be easily measured. The intangibles that define our relationship to a place and to each other, such as the knowledge that wild salmon continue to find their way from the blue waters of the North Pacific back home to the Rogue, Deschutes, Klamath, and other Oregon rivers, greatly impact our well-being. Surveys of the willingness-to-pay to improve water quality and habitat for wild salmon indicate how significant these non-use values may be — \$1.5 billion annually for Southwestern Oregon’s Rogue River salmon. These results may tell us more about our legacy than data on multipliers and economic output ever could.⁵



“I’m 71 years old, have two grandchildren, and I want those kids to come back here in 60 years to a stream that is viable and productive that they can fish.”

—Ray Tharp, Middle Rogue Steelheaders



About Us

The Whole Watershed Restoration Initiative (WWRI) is a public-private competitive grant program that focuses salmon habitat restoration efforts in areas of high ecological importance in Oregon, Washington and Idaho. The WWRI partners work together in order to bring new restoration funding to select watersheds where there is strong community support, effective collaboration, and high ecological value, so that measurable and sustainable recovery can be achieved faster than when efforts are spread thinly across the landscape.

www.ecotrust.org/wwri

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Notes

- Nielsen-Pincus, M. and C. Moseley. 2010. "Economic and Employment Impacts of Forest and Watershed Restoration in Oregon." University of Oregon: Ecosystem Workforce Program, Working Paper Number 24.

 Heintz, H., Pollin, R. and H. Garrett-Peltier. 2009. "The Economic Benefits of Investing in Clean Energy: How the Economic Stimulus Program and New Legislation Can Boost U.S. Economic Growth and Employment." Amherst, University of Massachusetts: Political Economy Research Institute.

 Heintz, H., Pollin, R. and H. Garrett-Peltier. 2009. "How Infrastructure Investments Support the U.S. Economy: Employment, Productivity and Growth." Amherst, University of Massachusetts: Political Economy Research Institute.
- Original restoration project data was sourced from the Oregon Watershed Enhancement Board's Oregon Watershed Restoration Inventory (OWRI). Accessed online on September 9, 2011 at <http://oregonexplorer.info/EnhancingWatersheds#TheOWRIDatabaseandGISdata>. Economic output and employment estimates derived using multipliers provided by Nielsen-Pincus, Max and Cassandra Moseley. 2010. "Economic and Employment Impacts of Forest and Watershed Restoration in Oregon." Ecosystem Workforce Program, Working Paper Number 24. Estimated Range provided by using Type I and Type II multipliers. During 2000–2009, a total of \$64 million was invested in 2,350 watershed restoration projects in the five county area of southwestern Oregon. Applying specific restoration related

- economic and employment multipliers developed by the Ecosystem Workforce Program of the University of Oregon, our findings suggest that initial investments generated an estimated \$114–\$141 million in economic output and approximately 730–1,020 jobs. While the Oregon Watershed Restoration Inventory (OWRI) is the most comprehensive database documenting watershed restoration projects and likely includes the majority of restoration projects occurring in the state, it does not include all restoration projects and efforts. Additionally, there are further non-market environmental and social benefits resulting from watershed restoration that are not accounted for in this analysis. Therefore, the presented estimates are likely low bound estimates when valuing the total economic impact of watershed restoration to this five county area.
- Hibbard, M. and S. Lurie. 2006. "Some community socio-economic benefits of watershed councils: A case study from Oregon." *Journal of Environmental Planning and Management* 49: 891-908.
 - Original project data was sourced from Brian Barr, Geos Institute on September 13, 2011.
 - Helvoigt, T. and D. Charlton. 2009. "The Economic Value of Rogue River Salmon." Prepared by ECONorthwest for American Rivers, Save the Wild Rogue Campaign.

