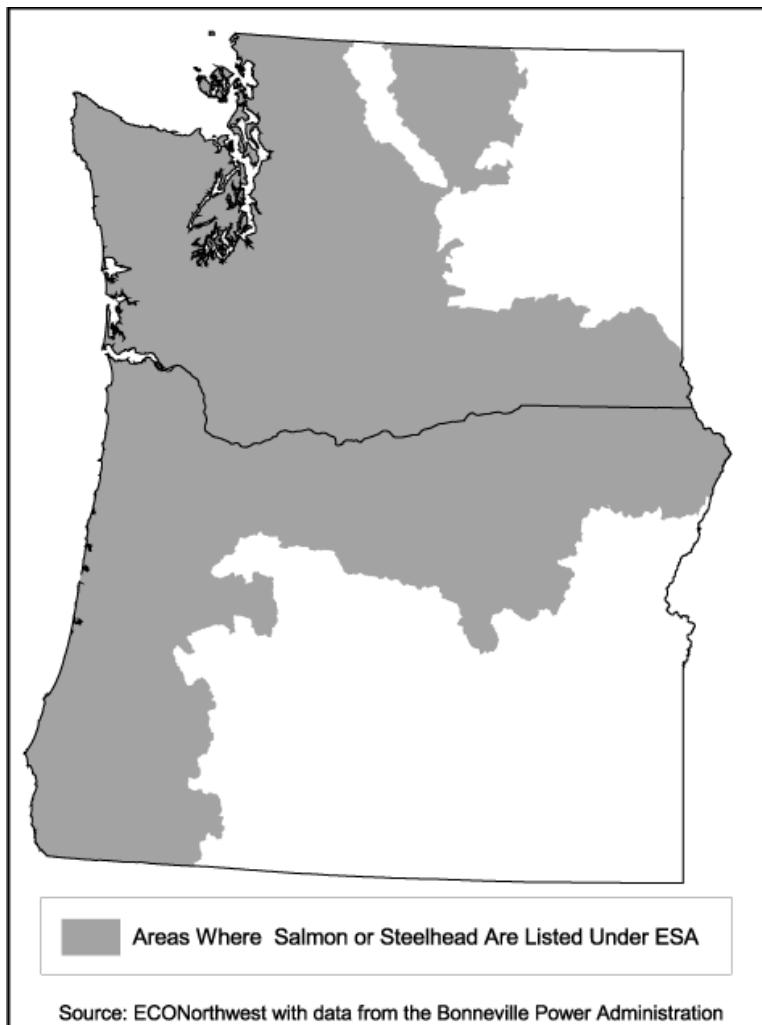


# Salmon and the Economy

## A Handbook for Understanding the Issues in Washington and Oregon

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## WHY WAS THIS HANDBOOK WRITTEN?

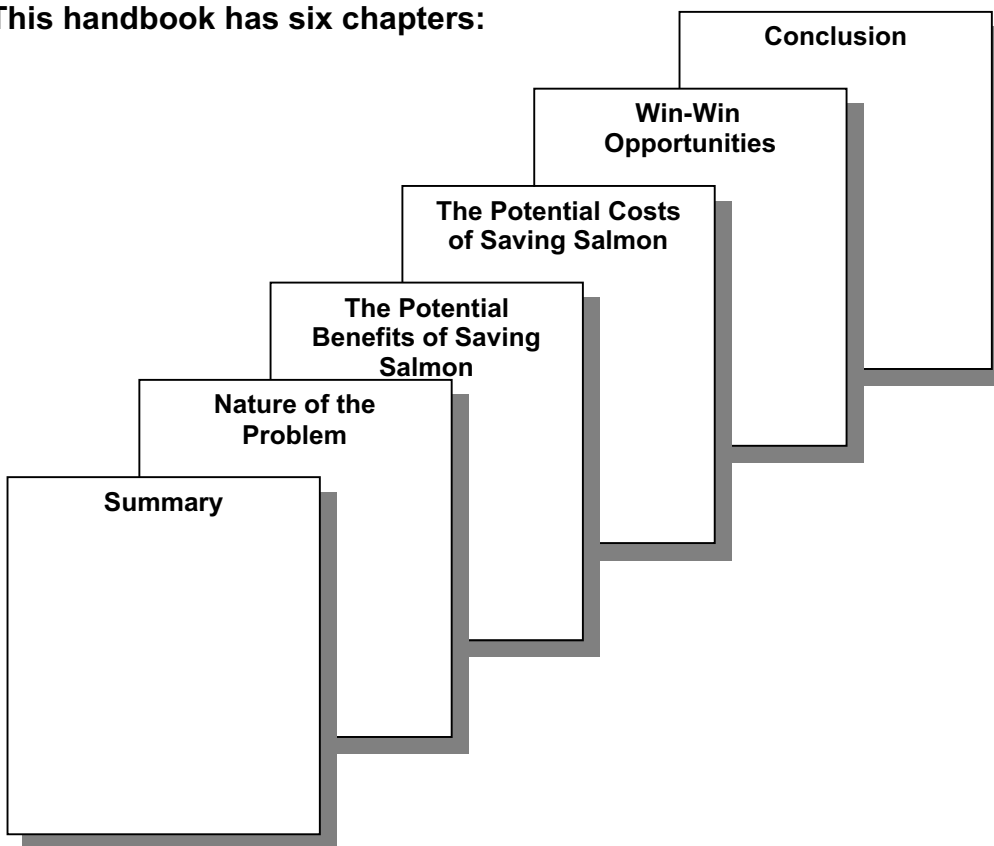
The citizens of Washington and Oregon know that salmon are in trouble and want to help, but often hesitate because they fear the economic consequences will be too severe. Their fears are understandable, for much of the information available from the news media and public officials focuses on only one aspect of the economic consequences—the costs that might materialize under the worst-case scenario. This perspective sees salmon conservation as a choice: salmon vs. the economy. The region can have one or the other, but not both.

This is a false choice. In reality, the actual costs will not be so large and, in many, if not most, instances, taking actions to conserve salmon will create economic benefits at least as large as the costs. Oregon and Washington can have both a robust, prosperous economy and healthy salmon populations.

Getting the economics right is important. The full richness of this importance was recently addressed by 76 economists, who sent a letter to the governors of California, Oregon, Washington, and Alaska, and to the premier of British Columbia, urging them “to consider the full range of economic consequences” when they make salmon-management decisions.<sup>1</sup>

The Center for Watershed and Community Health (CWCH), which is affiliated with the Hatfield School of Government at Portland State University, responded to the economists’ letter by initiating a project to help decisionmakers throughout the Pacific Northwest better understand the economic issues and facts associated with salmon. The CWCH’s Salmon Economics Project aims to provide accurate, objective, and easy-to-understand information about the potential costs and benefits associated with rebuilding healthy salmon populations. The Salmon Economics Project is an integral part of the CWCH’s focus on developing new, effective approaches to environmental governance.

**This handbook has six chapters:**



This handbook is one of the products from the Salmon Economics Project. Few people want to plod through all the evidence regarding the economic theory, facts, and implications of proposals to rebuild healthy salmon populations. The CWCH therefore asked the economists at ECONorthwest, an economic consulting firm with offices in Seattle, Portland, and Eugene, to provide a comprehensive summary of their views of ways in which rebuilding healthy salmon populations would affect the economies of Washington and Oregon.

## **WHO PREPARED THIS HANDBOOK?**

This handbook was prepared by Ernie Niemi, Ed Whitelaw, David Lindahl, Anne Fifield, and Michelle Gall, economists with ECONorthwest, under a grant provided through the Salmon Economics Project of the Center for Watershed and Community Health (CWCH), which is affiliated with the Mark O. Hatfield School of Government at Portland State University.

The CWCH gratefully acknowledges the financial support of the Ford Foundation, Brainerd Foundation, Lazar Foundation, and Harder Foundation, as well as the comments from reviewers. The authors are solely responsible for the content.

## **HOW SHOULD THIS HANDBOOK BE USED?**

**Read the summary.** It offers the main points of how salmon conservation will affect the economy.

**Read the sections of the handbook that interest you.**

**Get more information.**

*Check out the references.* The handbook has a list of references where you can obtain further information regarding the economics of salmon conservation.

*Contact the authors.* In Oregon, contact Ernie Niemi. Phone: 541-687-0051. Email: [niemi@eugene.econw.com](mailto:niemi@eugene.econw.com). In Washington, contact David Lindahl. Phone: 206-622-2403. Email: [lindahl@seattle.econw.com](mailto:lindahl@seattle.econw.com).

*Get the updates.* The authors intend to provide occasional updates, as new information becomes available. If you received this handbook from CWCH, you'll receive the updates automatically. Or, check the CWCH website: [www.upa.pdx.edu/CWCH/](http://www.upa.pdx.edu/CWCH/).

*Contact CWCH.* The Center for Watershed and Community Health at Portland State University is developing and implementing innovative proposals for improving the environment and the economy simultaneously. Phone: 503-725-8101.

# SUMMARY

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## Rebuilding Healthy Salmon Populations Requires Significant Changes in Washington and Oregon.

- **The problems are widespread.** Watersheds with salmon and related species listed as threatened or endangered cover 71 percent of Washington and 50 percent of Oregon.<sup>2</sup>
- **The underlying causes have deep roots.** Human activities have altered nearly all factors that influence the health of salmon populations: water quality, streamflows, in-stream and streamside habitat, the number of adults surviving to spawn, and the genetic makeup of hatchery fish.<sup>3</sup>
- **Habitats must be restored across large landscapes.** There is no quick fix. Salmon recovery will require permanent changes in fish-harvest practices and hatchery operations, in the management of water in streams and rivers, and in the activities on nearby lands that influence in-stream salmon habitat. Changes must occur at different scales, from specific sites to entire watersheds.<sup>4</sup>
- **Federal law mandates change.** If Washingtonians and Oregonians don't design and implement the necessary changes, federal agencies and courts will.

## Rebuilding Healthy Salmon Populations Will Generate Important Economic Benefits.

Although the full range of the potential benefits of salmon conservation in WA and OR has not been estimated, it is clear that conservation will produce significant economic benefits:

- **Salmon, themselves, are valuable.** Allow salmon to go extinct, and the Pacific Northwest (PNW) loses an important asset. The recreational value, alone, of each fish often exceeds \$200.<sup>5</sup> Intrinsic and other values can be even larger. Polls show residents of WA and OR are willing to pay \$30-97 per household, or \$102-330 million total, per year to finance recovery efforts.<sup>6</sup>
- **Salmon provide a warning of wider environmental hazards.** Like the canary in a coal mine, salmon alert us to declines in environmental quality that may endanger other species, including humans.
- **There will be many related benefits.** Done the right way, restoring healthy salmon habitat should improve water quality, reduce flood risks, and improve the PNW's quality of life.
- **Government may become more efficient.** Salmon conservation offers opportunities to reduce inefficient regulations and costly subsidies.
- **Salmon conservation will create employment and business opportunities.** Firms and workers with appropriate skills in conservation and habitat restoration should prosper.
- **Acting now will reduce future obligations.** Failing to rebuild salmon populations will make the task more costly in the future and place the burden on future generations.

## The Costs of Rebuilding Healthy Salmon Populations Probably Will Not Be as Bad as Many Believe.

There is no reliable, comprehensive estimate of the potential costs of salmon conservation in OR and WA. Nonetheless, the general characteristics of the costs are already apparent:

- **Many changes will entail doing things differently, but will have few costs.** Affected firms, households, and agencies will be able to plan for the changes, phased in over time, and adopt salmon-friendly technologies, products, and services, with little or no costs.
- **Many costs can be attenuated.** For example, some foresters believe the potential reductions in timber-sale revenues from salmon-related restrictions on logging can be largely offset by changing forest-management practices.<sup>7</sup>
- **Many costs can be spread out.** For example, federal conservation programs can compensate farmers for reductions in sales when they take streamside land out of production.<sup>8</sup>
- **Few workers will be adversely affected.** Job losses probably will be smaller than those to which the PNW successfully adjusted during the 1990s.
- **Most workers will adapt fairly easily.** If recent trends hold, about 50 percent of displaced workers would find replacement jobs in 2 months or less, and 55 percent of those reemployed would have equal or higher wages than before.<sup>9</sup> Unemployment insurance, job-retraining, and similar programs are available for those needing temporary help.
- **The alternative may be even more costly.** The costs of keeping salmon perched on the edge of extinction can be enormous.<sup>10</sup> In the long run, especially, it almost certainly will be cheaper to rebuild healthy salmon populations and craft an economy that is salmon-friendly.

## Win-Win Opportunities Are Possible.

There are many things Oregonians and Washingtonians can do to strengthen the health of both salmon populations and the economy. Among the most important are these three steps:

1. **Adopt tax incentives and other subsidies that help, not hurt, salmon.** Revoke tax breaks and other subsidies that encourage activities—such as some aspects of logging, agriculture, and urban development—harmful to salmon.
2. **Adopt environmental-regulation systems that boost BOTH salmon populations and economic prosperity.** Create incentives encouraging households and firms to avoid products and activities harmful to salmon.
  - Provide incentives for firms and industries to participate in designing innovative, efficient ways to resolve salmon-related and other environmental problems.
  - Develop effective strategies to help consumers distinguish between products and services harmful to salmon from those that are not.
3. **Implement effective transition programs.** Recognize that rebuilding healthy salmon populations cannot be accomplished without change, and bolster programs for facilitating the change.
  - Stimulate demand for salmon-friendly technologies, products, and services.
  - Address the concerns of those who believe they would bear an unfair share of the burden of rebuilding healthy salmon populations. Make help available for workers, families, firms, and communities.