

CHAPTER 8

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Financing Puget Sound  
Salmon Recovery

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# Financing Puget Sound Salmon Recovery

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*“We want to recover salmon not just because of the ESA, but because it is our responsibility to take this on and restore it for the sake of our cultural, social, industrial and economic future.”*

*U.S. Senator Patty Murray*

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People from all fifteen Puget Sound watersheds, in one of the most populous regions of the state, came together to save a species from extinction. The sheer size of this effort and number of communities involved is unprecedented in the history of the Endangered Species Act: fifteen local communities, both rural and urban, developed a regional recovery plan intended to do the most good for people and salmon. Critical to the implementation of this plan is the ability to fund its programs and actions and so Shared Strategy leaders developed a strong financing strategy to enable local and regional leaders to work together to raise the needed funds.

This chapter describes the financing strategy, developed over a two-year period by the Shared Strategy Development Committee (DC). The financing strategy’s concepts, principles and approach were recently supported and affirmed by a Leadership Group composed of city and county elected officials from throughout the Puget Sound region, government agency representatives, tribes, conservation organizations, and private industry.

In addition, this chapter is intended to fulfill the requirements of section 4(f)(1) of the Endangered Species Act that requires that the recovery plan include “estimates of the time required and the cost to carry out those measures needed to achieve the plan’s goal and to achieve intermediate steps toward that goal” (16 U.S.C 1531-1544, as amended).

## **What are the financing strategy’s goals and objectives?**

The primary goal of the financing strategy is to facilitate the implementation of this recovery plan over the next ten years. Doing so will improve conditions for the remaining 22 Puget Sound Chinook populations, core populations of bull trout and Hood Canal Summer Chum and place them on a recovery path.



Photo by Eileen Palmer for the Hood Canal Salmon Enhancement Group.

Additional objectives of the financing strategy include:

- Create public support for a long-term investment and commitment to action,
- Provide for dependable sources of salmon funds,
- Use public and private funds effectively on the highest priority salmon recovery actions based on science and local interests, and
- Improve the overall health of the Puget Sound ecosystem by helping salmon.



### **What period of time does the financing strategy cover?**

The financing approach focuses on the first ten years of plan implementation. While it is generally accepted that full recovery will take several decades, financing this first phase is expected to result in improved conditions for all Puget Sound Chinook populations and is expected to put the region on an aggressive recovery path. Ten years is a reasonable period of time during which to implement and evaluate the set of short-term strategies and priority actions identified in the plan, to gain a preliminary view of the status and trends of important recovery indicators, and to make mid-course corrections as needed. In ten years, regional leaders will decide how to finance the next phase of recovery based on the conditions and needs at that time.

### **How were cost estimates developed?**

The recovery plan recommends hundreds of different actions to protect and restore salmon populations, including protecting habitat through a combination of regulations, incentives and education. There are also restoration projects ranging from several thousand to several million dollars to improve fresh and salt water salmon habitats.

In addition, efforts will be necessary to integrate habitat, harvest and hatchery management to work in concert with recovery goals, as well as efforts to administer major long term responsibilities of public agencies related to plan implementation.

To address the costs of implementation, watersheds provided ten-year cost estimates based on their priority actions, assumed to be the period 2006-2015. Most watersheds used cost estimation models from the Shared Strategy publication *A Primer on Habitat Project Costs* and a companion spreadsheet model for non-capital costs (Evergreen Funding Consultants, 2003). While the precision of cost estimates varies somewhat from watershed to watershed, they are equivalent to pre-design or planning estimates for other public works programs.

In addition to the watershed-specific work to identify and estimate costs for priority actions, the Shared Strategy staff developed estimates for three programs that span multiple watersheds: hatchery improvements, nearshore and marine habitat protection and restoration, and incentive programs aimed at conservation on private farms and small forest parcels.

It is useful to note that the cost estimates are more accurate in the aggregate, when high and low estimates are expected to offset each other, than

they are for individual projects. Therefore, costs of individual projects used to develop the watershed estimates should be viewed as approximations, likely to change significantly as projects proceed into and through design phases and finally to construction.

Cost modeling is based on average circumstances. Anything out of the ordinary, such as particularly challenging site conditions or access to low-cost labor, can result in significant changes in project costs. Again, it seems likely that these offset one another when applied across the hundreds of projects identified in the watershed strategies.

All costs are in 2005 dollars, with no inflation anticipated in the ten-year estimates. The actual sequencing of projects and specific funding needs over the ten year period will be addressed later by the middle of 2006.

### What are the cost estimates for watershed projects and programs?

The attached figure (figure 8.1) shows total costs (capital and some operating) for the initial ten years of implementation for ten of 14 watersheds in the Puget Sound basin. The remaining four watersheds

(South Sound, Whidbey/Camano Islands, the San Juan Islands, and the east side of the Kitsap Peninsula) are making an important contribution to salmon recovery through their nearshore protection and restoration efforts. Consequently, these four were estimated as part of a group in the nearshore category discussed later in this chapter.

As noted on the figure, all but two of the costs estimates (for the Skagit and Hood Canal watersheds) were developed by local watershed planners. The Hood Canal basin provided costs for summer chum. Additional costs for Hood Canal Chinook recovery actions will be completed later in 2005. Since the actions benefiting Hood Canal summer chum are also expected to benefit Chinook in that basin, the additions of Chinook specific projects should not significantly change the magnitude of the need in Hood Canal. The Skagit costs are assumed to be comparable to the Snohomish watershed.

The total cost (mostly capital projects) of watershed actions identified for the ten watersheds is roughly \$1.1 billion for the ten-year period from 2006 to 2015. These costs are principally for habitat protection and restoration, the orientation of most of the watershed plans.

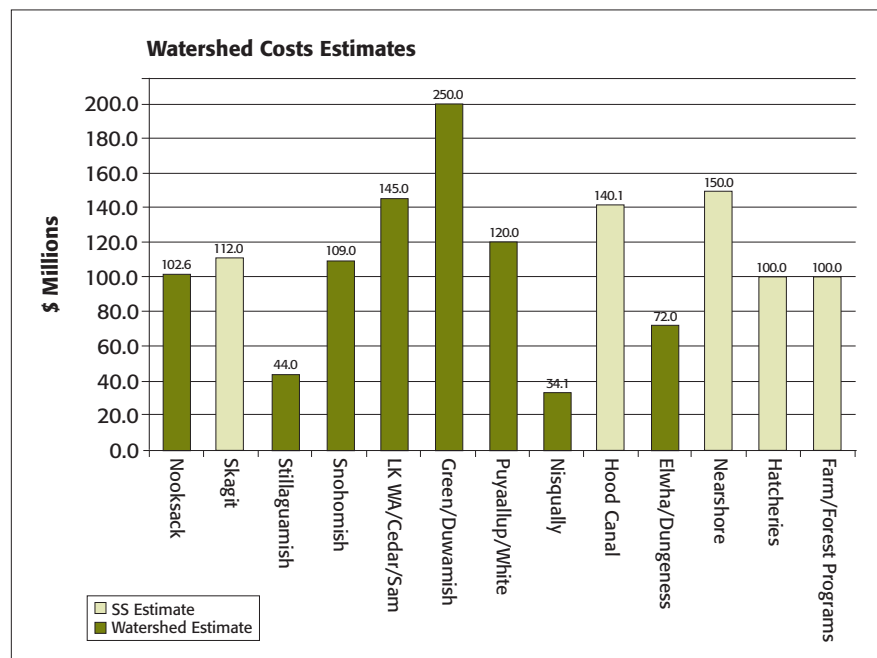


Figure 8.1 Ten-year Cost Estimates for Puget Sound Watersheds

### Estimates for regional projects and programs

Note that there are three bars to the right of figure 8.1 that are not watershed-specific. These costs-for nearshore, hatcheries, and farm and forest programs- are estimates for regional programs that will span the watersheds of the Puget Sound region. Like the watershed-specific costs, they are assumed for the first ten years of plan implementation. These costs and the proposed distribution of funding will be

subject to additional consultation, planning and decision processes for each of the three programs.

**Nearshore:** The financing strategy assumes that funding for the nearshore program would be allocated across all 14 Puget Sound watersheds in accord with regional nearshore priorities and shoreline assessments currently underway (including the Puget Sound Nearshore Ecosystem Restoration Program). Estuarine restoration projects are already captured in the watershed's ten-year costs. The estimate of \$150 million for the nearshore program is similar to the level of effort in a moderate-to-large watershed program.

**Hatchery Improvements:** The \$100 million assumed for the hatchery effort is in keeping with initial priorities for capital improvements identified in the Hatchery Scientific Review, a congressionally authorized assessment of hatchery improvements in Puget Sound and coastal waters. Like the nearshore funding, it is assumed that hatchery funding would be spread among the 15 Puget Sound watersheds in accordance with priorities that are consistent with recovery goals and agreed to by state and tribal co-managers.

**Farm and Forest Incentives:** The farm and forest funding is assumed to be allocated among Puget Sound watersheds to provide incentives to farmers and small forest landowners for salmon conservation work on their lands and to preserve these working lands. The \$100 million estimated from this work is based on the costs of comparable programs in individual jurisdictions.

Of the total watershed and regional costs, 85% or slightly more than \$1.2 billion is projected to be needed for capital projects — largely habitat-related — and the remaining 15% (or \$222 million) is proposed for key non-capital activities such as adaptive management and monitoring.

### **Other costs of the recovery effort not covered by these estimates**

The costs above are primarily for efforts central to the recovery effort. There is a broader universe

of programs whose goals and applications are not directed solely at salmon recovery, but that do or could have some benefit to salmon. They include:

- Development and enforcement of land use regulations
- Enforcement of water pollution controls
- Hatchery operations and maintenance
- Development and enforcement of fishing regulations
- Restoration of in-stream flows to support salmon recovery
- Water quality clean-up costs
- Public outreach
- Protection and enforcement of regulations regarding instream flows
- Monitoring and enforcement of ESA compliance

Costs of these activities have not been quantified for two reasons. First, the compilation of costs of activities that are spread among hundreds of jurisdictions, such as land use enforcement, is impractical. Second, it is challenging to determine how to allocate the costs of these activities between salmon recovery and other benefits such as water quality or fisheries management. Suffice it to say that there are substantial additional costs associated with the accomplishment of the recovery strategy, many of which are borne by local, state, and tribal governments in the region.

### **How will the cost estimates be refined?**

Costs for the recovery plan will be refined in phases as additional information is gathered. Those elements of the plan that are addressed in regional actions with gross cost estimates — nearshore, hatchery, and farm and forest activities — are expected to be fleshed out and estimated for costs by the first annual review of the recovery plan in late 2006, and costs will be modified accordingly. Finally, all costs of the plan are expected to be

updated as projects proceed through further design and development, with each phase of the design process resulting in more reliable cost estimates.

### **Summary of cost information**

The costs of the recovery plan can therefore be summarized as such:

1. The costs of habitat actions and some hatchery and adaptive management work identified in 10 of the 14 watersheds in the region sum to \$1.2 billion, the majority of which is needed as capital funding in the next ten years.
2. Costs of regional programs to address near-shore, hatchery, and farm and forest conservation needs are estimated at \$350 million for the next ten years.
3. Many activities that are ancillary to but supportive of the recovery effort have not been quantified.
4. Costs will be refined as regional studies continue and as individual projects proceed through the design and development process.

### **What is the financing strategy?**

One of the objectives of the financing strategy is to provide dependable sources of funds needed to address the highest priority actions identified in the regional recovery plan. This will be pursued through the following strategy:

- Maximize the use of existing salmon funding sources.
- Draw on additional existing sources that could be, but have not been, used for salmon recovery priorities (e.g. mitigation, federal farm bill, public and private grant programs).
- If sources fall short of goals, explore alternative sources or change the scope or pace of recovery plan implementation.

### **What are existing sources of salmon funds?**

In the aggregate, spending for salmon recovery has been divided fairly evenly among federal, state, and local governments in recent years, although

each (and other contributors) have had different emphases:

- Capital funding for habitat projects has come principally from federal and local sources, with tribes also contributing significantly;
- Funding for hatchery and harvest activities has been raised and spent principally by state and tribal governments;
- Watershed and regional recovery planning has been funded by local governments, tribes, and private organizations, although the federal and state governments have contributed cash and technical assistance to the effort.

In the five years since the ESA listings, annual spending from sources that are expressly for salmon projects and programs — such as the Salmon Recovery Funding Board (SRFB) and the National Fish and Wildlife Foundation’s Community Salmon Fund (CSF) — have crested at more than \$25 million annually within the Puget Sound region. Sources that are not salmon-focused but have been used extensively for salmon projects in recent years (including funding from local surface water management programs, Corps of Engineers restoration programs, and a wide variety of local, state, and federal environmental grant programs) have contributed at least another \$40 million per year. For the purposes of this financing approach, the current level of funding is assumed to be \$60 million per year in Puget Sound.

### **How can we maximize existing sources?**

Existing funding comes principally from targeted federal and state appropriations, competitive grants, and local (with tribal and private) matching funds. This financing approach assumes continued success at current levels from local contributions and with the federal portion of SRFB funding. The financing strategy calls for an increase in state SRFB funding, and concerted efforts in Washington DC and Olympia to diversify federal and state funding sources.

The approach also calls for a higher rate of activity and success with competitive grant programs that are relevant to salmon recovery activities. There are dozens of appropriate grant sources and existing efforts that could be greatly improved by employing a more strategic approach to identifying promising grant sources and coordinating proposal writing. Together, these efforts to maintain and improve fundraising from existing sources are anticipated to result in an increase in annual funding for Puget Sound salmon recovery activities from \$60 to \$80 million annually.

### **What is the principal untapped source that could be used for salmon?**

The principal untapped source identified in the financing approach is mitigation funding provided as compensation for environmental impacts of public and private construction projects. The financing strategy proposes to use existing, not new or increased, mitigation funds more effectively. Currently, projects requiring environmental mitigation spend anywhere from 5% to 60% of the project cost on mitigation with an average of 10%. The approach anticipates that a small portion of mitigation money (one tenth) could be redirected to salmon habitat projects through banking and other alternative mitigation strategies. The purpose would be to mitigate a project's impacts on salmon off-site where restoration could be expected to make a bigger difference than on-site.

There are a number of administrative and policy issues that need to be addressed to use mitigation funds for salmon recovery. Mitigation program details will be developed later this year and expected to be completed by mid 2006.

In addition to mitigation, the financing approach incorporates a very small amount of funding from the increased use of existing local funding authorities such as the Conservation District assessments and Conservation Futures taxes in some communities that are not currently using these programs. These sources are forecasted to add an additional

\$40 million per year in funding for Puget Sound salmon recovery.

### **How will funds be distributed?**

It is worth noting that only about a third of the sources identified in the financing strategy are available for distribution across the region. These are primarily the SRFB state and federal sources and some grants. Local appropriations are confined to the jurisdiction in which they are raised. Mitigation funding can rarely be spent beyond the watershed in which environmental impacts occur. This means that urban watersheds with the largest population size have the potential to raise the most money.

The financing strategy compensates for this inequity by distributing funds that are not geographically constrained (portable) according to priorities in the regional recovery criteria. That is, each of the five bio-geographical regions would receive an equal amount of portable funds with a 10% bump to the Skagit watershed because of its unique role. Each sub-region then divides the money evenly among its watersheds. Initially, until planned fund sources roll in, watersheds with independent spawning populations would continue to receive comparable levels of SRFB funds according to current averages. Watersheds without spawning populations would receive a portion of the nearshore funds. Once the entire suite of planned sources begin coming in, the full financing strategy will be implemented.

### **What is the total funding level and what can it achieve?**

The financing strategy is expected to sustain the \$60 million currently available for salmon recovery and raise an additional \$60 million per year for a total average of \$120 million per year over ten years. This funding level will support significant progress toward recovery based on local watershed scientific work and the TRT's regional recovery criteria. Based on the assumptions in the finance strategy, it will do so at a cost that can reasonably be borne by the governments and taxpayers of the region without

tax increases. It does not, however fund the entire suite of priorities on which the watersheds based their estimates.

The Puget Sound Technical Recovery Team's conclusions about the certainty of achieving plan outcomes (as described in other chapters of this plan) assume implementation of the entire 10-year suite of priority actions. If the ten-year program cannot be fully implemented, the certainty of achieving plan outcomes and achieving ESU recovery is reduced. It is incumbent on regional leaders to address this issue as results and progress become apparent in the next ten years. They may need to re-evaluate the funding strategy to determine if the fund raising goal will need to be adjusted.

### **Review and adaptation of the financing strategy**

An annual review process is recommended to ensure that tasks are executed as planned and, in time, that the strategy is reaping the funding levels expected. It is recommended that this occur in the late fall of each year to make the necessary mid-course corrections before the state and federal budget processes begin in January. The reviews for years one and two (in the fall of 2005 and 2006) should focus principally on whether the proposed tasks have been implemented. Thereafter, the focus should shift to whether the tasks have succeeded in raising the money anticipated, with the first full evaluation of program performance in the fall of 2007 when all programs should be fully underway.



Photo by Levi Sheckler, courtesy the Washington State Department of Community, Trade and Economic Development.

### **Summary of the financing strategy and schedule**

The approach can be summarized as follows:

1. Existing federal, state, and local sources of funding for salmon recovery now contribute an average of \$60 million per year.
2. Through an active lobbying and grant writing effort, this could grow to \$80 million dollars.
3. An additional \$40 million per year - to a total of \$120 million per year over the next ten years - may be available largely from redirecting money that is currently spent on mitigation to higher priority restoration sites.
4. Executing this approach will require a strong commitment to a joint communications, lobbying, grant writing, and mitigation banking campaign.
5. This campaign will take two years to reach full strength and should be evaluated and fine-tuned on a regular basis through the initial ten-year implementation period.
6. In the meantime, watersheds will receive comparable funds according to current averages from either the SRFB or the nearshore portion, depending on whether or not they have independent spawning populations.

### **Conclusions**

The financing approach discussed in this chapter is ambitious but achievable. Since 1999, the governments, community organizations, tribes, and business community have demonstrated that when they all pull together to support funding programs, the money flows. There are hundreds of completed habitat projects on Puget Sound rivers and

shorelines that demonstrate the resolve and power of this partnership.

The next ten years will test this resolve and power. The financing approach counts on redoubled efforts in DC and Olympia, a regional grant-seeking compact, and pioneering work to redirect mitigation funding. It will require all of the effort put in the last few years and a good bit more. The partners in the Shared Strategy have demonstrated that it can be done - that the financing approach, while properly ambitious, can be achieved.

