



**NOAA  
FISHERIES**

# **Pacific Coastal Salmon Recovery Fund FY 2018 Report to Congress**

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# Executive Summary

Since 2000, Congress has provided funding for the protection, conservation, and restoration of Pacific salmon and steelhead. The Pacific Coastal Salmon Recovery Fund (PCSRF) distributes those funds to states and tribes through competitive grants, allowing them to implement all phases of restoration and protection activities for the recovery of Pacific salmon and steelhead listed under the Endangered Species Act (ESA) or important to tribal treaty fishing rights and subsistence fishing. This Fiscal Year 2018 report to Congress documents the program's contributions to Pacific salmon and steelhead restoration over the last 19 years (2000-2018). This report summarizes program-wide accomplishments, shares information on the value of restoration work to local community economies, and features projects that demonstrate the geographic breadth and extent of work completed to improve habitat, maintain healthy salmon populations, and recover Pacific salmon and steelhead.



# Introduction to the Pacific Coastal Salmon Recovery Fund

Today, 28 salmon species<sup>1</sup> face extinction on the West Coast and are protected under the ESA. Others have seen drastic reductions in their populations. Salmon are foundational to the region's ecology, and Chinook salmon in particular are important prey for endangered Southern Resident killer whales. Salmon recovery will also benefit coastal communities through additional commercial and recreational fishing opportunities and associated jobs. Many of these species are of profound cultural importance to West Coast Native American Tribes, and their recovery is critical to meeting Federal obligations as stewards of tribal treaty and trust resources and to supporting tribal treaty fishing and subsistence fishing traditions. It is also becoming apparent that recovering and preventing the extinction of Southern Resident killer whales will depend upon recovering robust salmon prey populations.



In 2000, Congress established PCSRF to reverse the decline of West Coast salmon populations in California, Oregon, Washington, Alaska, and Idaho. PCSRF is a competitive grants program through which the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) administers funding to states and tribes to protect, conserve, and restore these populations. Achieving salmon recovery will take action at all levels of government, and the PCSRF program is vital in supporting state- and tribal-led restoration efforts and in fostering associated local partnerships to advance recovery.

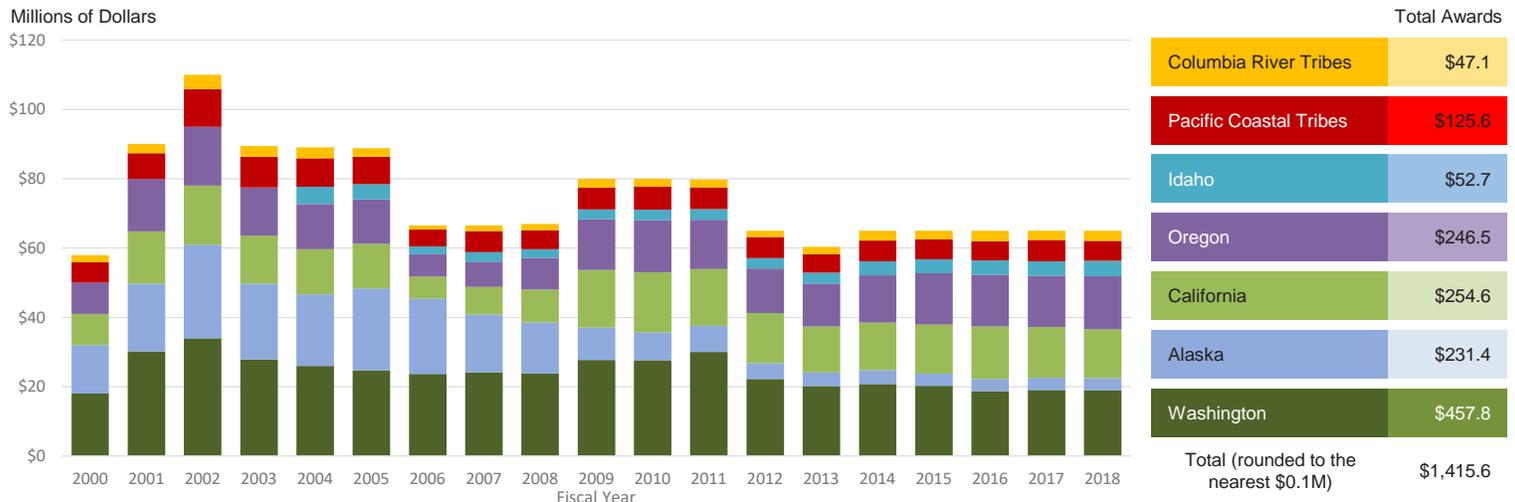
PCSRF has awarded an average of \$74.0 million annually since 2000 (Exhibit 1). With this funding, states and tribes have leveraged additional resources to collectively implement more than

13,700 projects to conserve West Coast salmon. Projects have restored and improved access to important spawning and rearing habitats. PCSRF-funded activities also include robust planning and monitoring programs that inform strategic prioritization of projects, as well as track salmon conservation accomplishments.

<sup>1</sup> In this report, the 28 "species" includes evolutionarily significant units and distinct population segments, and the term "salmon" is inclusive of both salmon and steelhead.

## Since 2000, PCSRF has -

- Restored, created, or protected over 1,105,000 acres of salmon habitat;
- Opened over 10,900 miles of streams to spawning fish;
- Received \$1.4 billion in congressionally appropriated funds; and
- Leveraged nearly \$1.7 billion in non-PCSRF contributions.



**Exhibit 1: PCSRF Awards to States and Tribes (\$Millions)<sup>†</sup>**

<sup>†</sup> Due to rounding, the total does not equal the sum of the state and tribal award totals.

# Measuring Progress & Tracking Funding

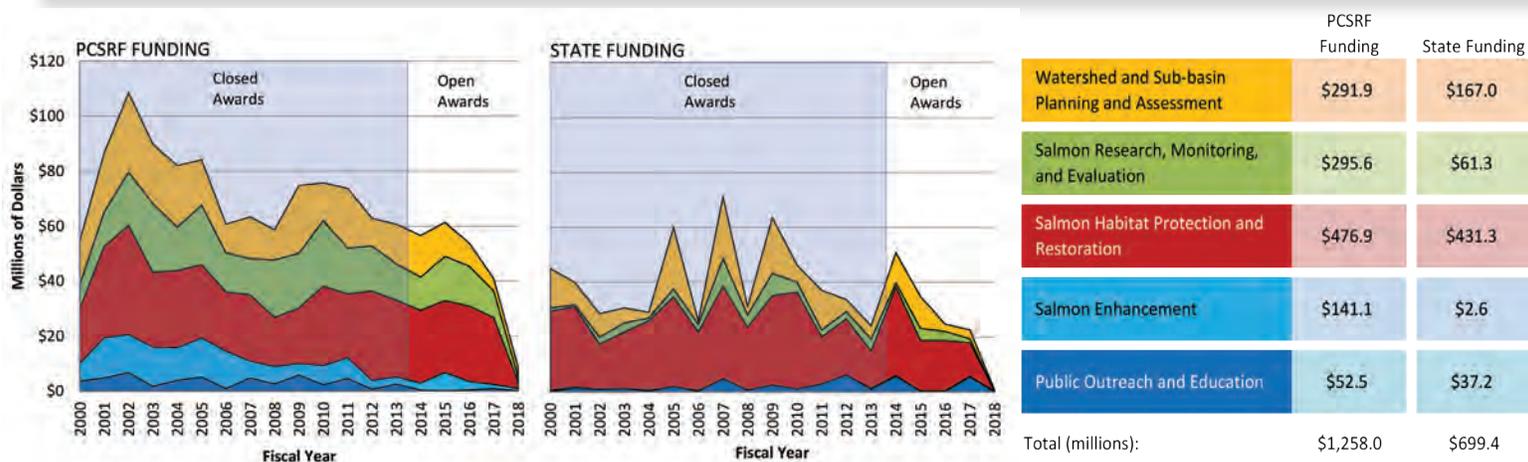
All PCSRF recipients report on a standard list of metrics for all projects (Exhibit 2). In aggregate, these metrics provide estimates of program-wide accomplishments funded with PCSRF, state-matching, and other partner funds. PCSRF's project and performance metrics database is available online at: <http://www.webapps.nwfsc.noaa.gov/pcsrp>

Output	Performance Measure	FY2018	FY2000-FY2018
Instream Habitat Projects	Stream Miles Treated	100	2,837
Wetland Habitat Projects	Acres Created	0	2,115
	Acres Treated	141	30,062
Estuarine Habitat Projects	Acres Created	0	2,353
	Acres Treated	104	5,496
Land Acquisition Projects	Acres Acquired or Protected	1,079	271,848
	Stream Bank Miles Acquired or Protected	26	5,237
Riparian Habitat Projects	Stream Miles Treated	797	11,932
	Acres Treated	8,488	131,469
Upland Habitat Projects	Acres Treated	3,072	648,481
Fish Passage Projects	Number of Barriers Removed	57	3,414
	Stream Miles Opened	351	10,905
	Number of Fish Screens Installed	8	1,970
Hatchery Fish Enhancement Projects	Number of Fish Marked for Management Strategies	152,704	362,567,500
Research, Monitoring & Evaluation Projects	Miles of Stream Monitored	18,848	526,373

**Exhibit 2: Summary of PCSRF Program-wide Performance Measures, FY 2000-2018<sup>††</sup>**

<sup>††</sup>Reflects annual and accumulated totals at the time the database was queried for this report (December 6, 2018).

Exhibit 3 highlights funding allocations by project category. Throughout the PCSRF program's existence, habitat restoration and critical monitoring have remained central emphases of the program. While other project categories contribute to PCSRF goals, implementing on-the-ground restoration actions is vital to salmon recovery, and consistent monitoring ensures PCSRF investments are effectively meeting the needs of ESA-listed species.



**Exhibit 3: PCSRF and State Funding Allocations by Project Type<sup>†††</sup>**

<sup>†††</sup>The sum of total funding allocated across project types does not equal the total of PCSRF awards presented in Exhibit 1. Not all awarded funds have been allocated to projects for the more recent fiscal years (Open Awards). Most awards more than 5 years old have expended available funds (Closed Awards).

# Reversing species' declines

Of the 20 salmon species with sufficient monitoring data with which to evaluate trends and based on the most recent species status reviews completed in 2016,<sup>2</sup> two species continue to exhibit a declining trend. Of the others, 13 are exhibiting stable trends in abundance and five are exhibiting increasing trends. While most species remain below their recovery goals, the sustained stable and increasing trends represent noteworthy successes in preventing extinctions and dramatic turnarounds from the numbers we witnessed in the 1990s. Periods of favorable ocean conditions; new or adaptive approaches in harvest management, hatchery practices, and hydropower dam operations; and increasing habitat restoration have all contributed to the improvements in the species' status.

<sup>2</sup>The next status review are expected in 2021.

## Investing in salmon restoration spurs economic growth for local communities

The value of salmon habitat restoration goes far beyond recovering these threatened and endangered species. Financial investments in salmon habitat restoration also contribute to local communities and their economies. The “restoration economy” in the United States employs approximately 126,000 workers and annually generates approximately \$9.5 billion in economic output.<sup>i</sup> This activity indirectly “...supports an additional 95,000 jobs and \$15.0 billion in economic output through indirect (business-to-business) linkages and increased household spending.”<sup>i</sup>

Several studies indicate that a \$1 million investment in watershed restoration, of which PCSRF and state matching funds play a significant role, creates between 13 and 32 jobs and between \$2.2 and \$3.4 million in economic activity (Exhibit 4).<sup>v, vi, iv</sup>

Every dollar invested in salmon restoration travels through the economy in several ways. PCSRF state and tribal grantees contract with local entities – watershed groups, conservation agencies, land trusts, and others – to manage habitat restoration projects. In turn, those groups contract with local businesses and suppliers to carry out the work.

Investing in restoration also provides communities with longer-term economic stability, including future job creation in rebuilt commercial, recreational, and tribal salmon fisheries; coastal tourism; and higher property values.<sup>v</sup> In fact, an analysis of three NOAA-funded coastal restoration projects found that each dollar invested returns more than \$15 in long-term net economic benefit.<sup>iii</sup>

The employment and economic benefits of salmon restoration activities are largely realized in local and rural communities, many of which face economic challenges. The vast majority of habitat restoration investments are spent in the state in which the project sponsor is located (approximately 90 percent), and in non-metropolitan counties over 60 percent is spent within the county.<sup>ii, vi</sup> These economic benefits are often localized and provide important stability to economically distressed communities.<sup>ii, vi</sup>

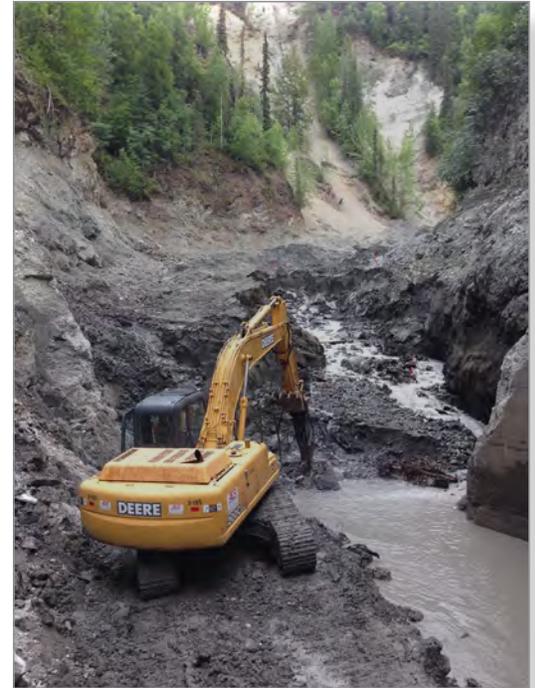
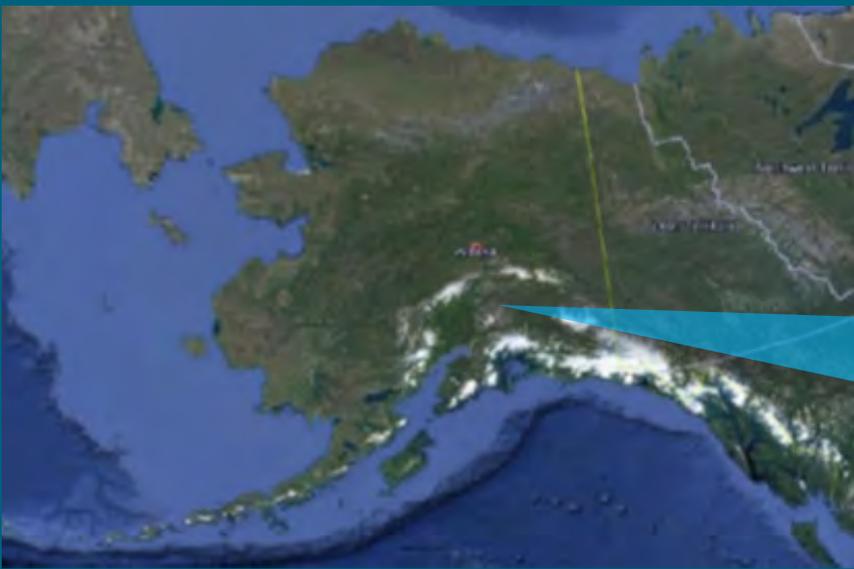


Photo: Brad Meiklejohn

Selected Project Types	Definition	Jobs/ \$1M <sup>v</sup>	Jobs/ \$1M <sup>vi</sup>	Economic Output/\$1M <sup>v,vi</sup>
In-stream	Enhancing stream habitat and function	-	14.7	\$2,203,851
Riparian	Restoring riparian habitat function, enhancing and restoring native riparian vegetation	19.0	23.1	\$2,310,128
Wetland	Restoring wetland and estuarine habitat	-	17.6	\$2,259,422
Reconnection	Restoring the flow of water to coastal systems and floodplains	14.6	-	-
Fish Passage	Removing barriers to fish passage (culverts and dams), screening to protect fish from water withdrawals	18.2	15.2	\$2,240,281
Upland	Managing agricultural water, juniper, and noxious weeds	-	15.0	\$2,476,290
Others	Undertaking multiple activities in one comprehensive restoration project	-	14.7	\$2,270,862

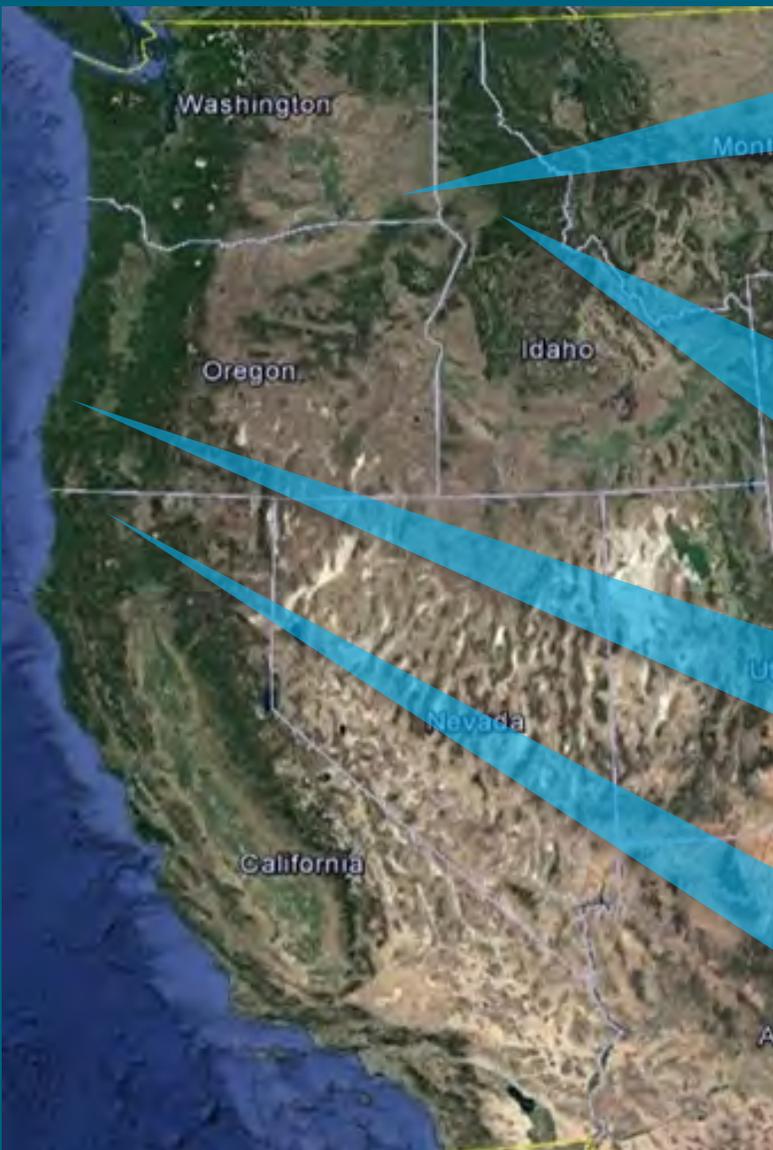
Exhibit 4: Economic Effects per \$1 Million Invested in Forest and Watershed Restoration Projects

# PCSRF at Work: Featured Projects



## ALASKA

Project: Eklutna River Lower Dam Removal  
PCSRF Funds: \$ 85,890  
Matching & Other Funds: \$ 7,256,000  
Targeted Species: Sockeye, Chinook, Chum, Coho, Pink Salmon (non-ESA listed species)



## WASHINGTON

Project: Tucannon River Project Area 24 Floodplain and Channel Complexity  
PCSRF Funds: \$218,882  
Matching & Other Funds: \$505,954  
Targeted Species: Snake River Steelhead (T), Snake River Spring/Summer Chinook Salmon (T)

## IDAHO

Project: Lolo Creek Collette Mine Restoration  
PCSRF Funds: \$60,000  
Matching & Other Funds: \$397,828  
Targeted Species: Snake River Steelhead (T), Snake River Spring/Summer Chinook Salmon (T)

## OREGON

Project: East Fork Millicoma Oxbow Reconnection  
PCSRF Funds: \$915,077  
Matching & Other Funds: \$477,537  
Targeted Species: Oregon Coast Coho Salmon (T)

## CALIFORNIA

Project: Seiad Creek Coho Habitat Enhancement  
PCSRF Funds: \$446,284  
Matching & Other Funds: \$170,150  
Targeted Species: Southern Oregon-Northern California Coast Coho Salmon (T)

### For additional project information:

PCSRF Story Map (2018) - <https://arcg.is/1njuWW0>

<https://www.fisheries.noaa.gov/grant/pacific-coastal-salmon-recovery-fund-0>

*(T) denotes species listed as 'Threatened under the ESA'*

# References

- <sup>i</sup> BenDor T, Lester TW, Livengood A, Davis A, Yonavjak L. 2015. Estimating the Size and Impact of the Ecological Restoration Economy. PLoS ONE 10(6): e0128339. doi:10.1371/journal.pone.0128339.
- <sup>ii</sup> Bonner, K., and M. Hibbard. 2002. The economic and community effects of Oregon Watershed Enhancement Board Investments in Watershed Restoration. University of Oregon, Institute for a Sustainable Environment, Ecosystem Workforce Program, Briefing Papers.
- <sup>iii</sup> Conathan, M., J. Buchanan, and S. Polefka. 2014. The economic case for restoring coastal ecosystems. Center for American Progress and Oxfam America. April.
- <sup>iv</sup> Cullinane Thomas, Catherine; Huber, Christopher; Skrabis, Kristin; and Sidon, Joshua. 2016. Estimating the economic impacts of ecosystem restoration - Methods and case studies. U.S. Geological Survey Open-File Report 2016 –1016, 98 p. <http://dx.doi.org/10.3133/ofr20161016>.
- <sup>v</sup> Edwards, P.E.T., A.E. Sutton-Grier and C.E. Coyle. 2013. Investing in nature: Restoring coastal habitat blue infrastructure and green job creation. *Marine Policy* 38:65-71.
- <sup>vi</sup> Nielsen-Pincus, M., and C. Moseley. 2013. The Economic and Employment Impacts of Forests and Watershed Restoration. *Restoration Ecology* 21 (2), 207-214.

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National Marine Fisheries Service  
1315 East-West Highway  
SSMC 3, F/PR  
Silver Spring, Maryland 20910  
[www.fisheries.noaa.gov](http://www.fisheries.noaa.gov)

Copies of this Report may be obtained by contacting:  
Jennie Franks, National Marine Fisheries Service  
West Coast Region  
1201 NE Lloyd Blvd., Suite 1100  
Portland, Oregon 97232  
[Jennie.Franks@noaa.gov](mailto:Jennie.Franks@noaa.gov)