

**NOAA**  
**FISHERIES**

# **Pacific Coastal Salmon Recovery Fund FY 2019 Report to Congress**

# TABLE OF CONTENTS

I. Executive Summary.....	1
II. Investments in Reversing Species' Declines.....	2
III. Measuring Progress and Tracking Funding.....	3
IV. Recovering Salmon Contributes to Southern Resident Killer Whale Recovery.....	4
V. Program Spotlight: Supporting Native Subsistence in Western Alaska.....	4
PCSRF at Work: Featured Projects.....	5

Cover: Families fish together on the lower Yukon River. Photo: Corey Arnold, courtesy of Alaska Seafood Marketing Institute.



Juvenile coho salmon. Photo: Oregon Watershed Enhancement Board.

# I. Executive Summary

Since 2000, Congress has provided funding for the protection, conservation, and restoration of Pacific salmon and steelhead. Through the Pacific Coastal Salmon Recovery Fund (PCSRF), the National Oceanic and Atmospheric Administration (NOAA) distributes those funds to states and tribes through competitive grants. Eligible projects include all phases of habitat restoration and protection activities that contribute to recovering Pacific salmon and steelhead listed under the Endangered Species Act (ESA) or supporting Pacific salmon and steelhead species important to tribal treaty fishing rights and subsistence fishing.

This Fiscal Year (FY) 2019 report to Congress documents the program's contributions to Pacific salmon and steelhead restoration over the past 20 years (2000–2019). This report summarizes program-wide accomplishments, highlights the value of restoration work to the economies of local communities, 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. The PCSRF program is vital to supporting state- and tribal-led restoration efforts and in fostering associated local partnerships to advance recovery.



*Julianna Sullivan, a Port Gamble S'Klallam Tribal member and marine biologist monitors rearing juvenile salmon. Photo: Tiffany Royal, NWIFC.*

Since 2000,  
PCSRF has:

**\$74 million**  
awarded  
(average/year)

**\$1.48 billion**  
appropriated

**\$1.78 billion**  
leveraged  
non-PCSRF  
contributions

**1,120,000**  
acres  
of salmon habitat  
protected, restored,  
& created

**11,200 stream**  
miles made  
accessible

**14,080 projects**  
implemented

## II. Investments in Reversing Species' Declines

Today, 28 salmon species<sup>1</sup> face extinction on the West Coast and are protected under the ESA. Other populations that are not listed as threatened or endangered under the ESA have experienced drastic reductions in their populations and are at risk to be listed. Salmon are foundational to the region's ecology, and Chinook salmon, in particular, are important prey for endangered Southern Resident killer whales. Recovering abundant native salmon populations will also benefit coastal communities through renewed commercial and recreational fishing opportunities and associated jobs. Many of these species are of profound cultural importance to West Coast Native American Tribes, and the species' 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.

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 NOAA's National Marine Fisheries Service (NMFS) administers funding to states and tribes to protect, conserve, and recover these populations (Exhibit 1).

Investing in threatened, endangered, and at-risk West Coast salmon populations provides public and ecosystem benefits. A recent study found that the public values salmon recovery and conservation efforts. Using a set of realistic habitat restoration scenarios, the study found that the average household was willing to pay and support salmon recovery even if recovery is incremental and slow.<sup>2</sup>

Salmon habitat restoration and monitoring projects continue to be key contributors in providing jobs, income, recreation and tourism opportunities, and public value to local and regional economies. These projects also support species that are culturally significant to tribes along the West Coast. Several studies indicate that a \$1.0 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.<sup>3,4,5</sup>

**PCSRF also helps power the American Blue Economy and contributes to NOAA's leadership in achieving tourism, recreation, and coastal resiliency goals by:**

- **strengthening our collaboration with public-private partners,**
- **restoring and protecting coasts and estuaries, and**
- **supporting coastal communities in becoming more resilient to a changing climate.**

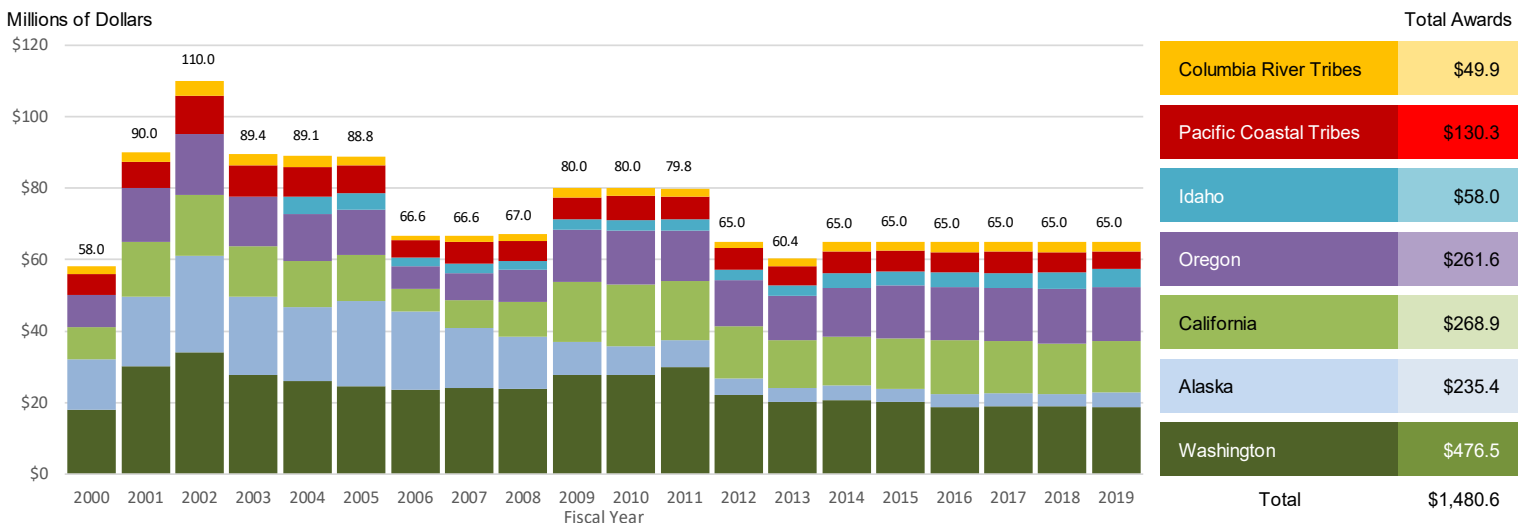


Exhibit 1: PCSRF Awards to States and Tribes (\$Millions)

# III. Measuring Progress & Tracking Funding

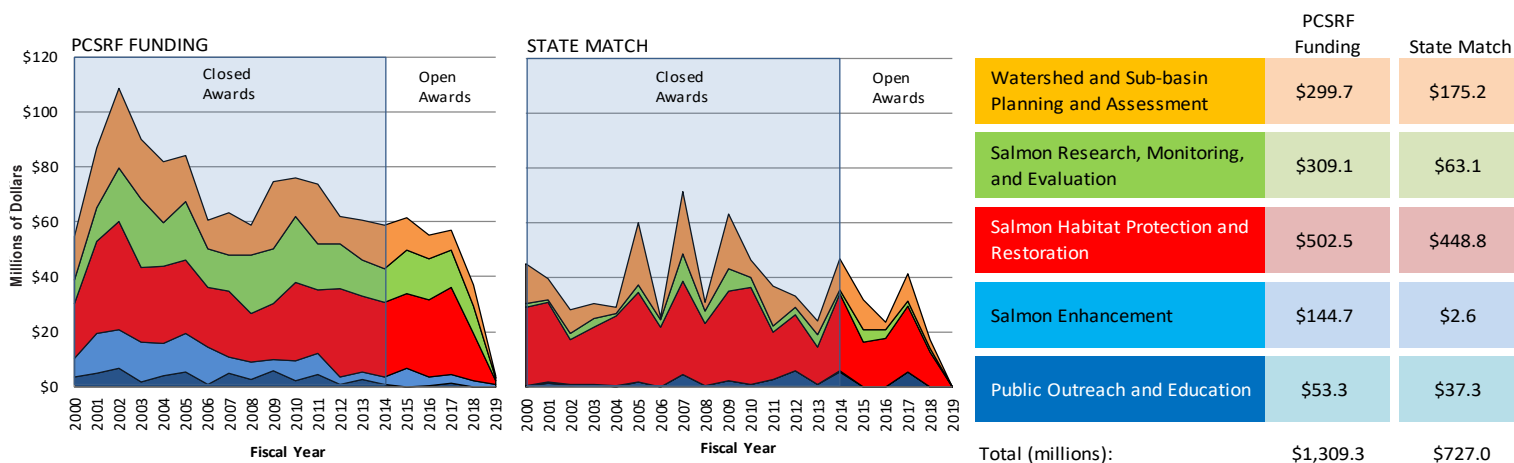
To ensure we can measure and evaluate progress and outcomes with PCSRF funds, all PCSRF recipients report on a standard list of metrics for all projects (Exhibit 2). In aggregate, these metrics provide estimates of program-wide accomplishments funded with PCSRF, state-matching, and other partner funds.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

Project Type	Performance Measure	FY2019	FY2000-FY2019
Instream Habitat Projects	Stream Miles Treated	80	2,917
Wetland Habitat Projects	Acres Created	0	2,115
	Acres Treated	19	30,081
Estuarine Habitat Projects	Acres Created	0	2,353
	Acres Treated	1,781	7,277
Land Acquisition Projects	Acres Acquired or Protected	3,745	275,593
	Stream Bank Miles Acquired or Protected	24	5,261
Riparian Habitat Projects	Stream Miles Treated	208	12,140
	Acres Treated	2,478	133,947
Upland Habitat Projects	Acres Treated	8,153	656,634
Fish Passage Projects	Number of Barriers Removed	205	3,619
	Stream Miles Opened	309	11,214
	Number of Fish Screens Installed	1	1,971
Hatchery Fish Enhancement Projects	Number of Fish Marked for Management Strategies	10,529,992	373,097,492
Research, Monitoring & Evaluation Projects	Miles of Stream Monitored	18,377	544,750

**Exhibit 2: Summary of PCSRF Program-wide Performance Measures, FY 2000-2019**

Reflects annual and accumulated totals at the time the database was queried for this report (December 2, 2019).

Exhibit 3 highlights funding allocations by project category. Throughout PCSRF's existence, habitat restoration and 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 over time. PCSRF funds continue to play a key role in advancing salmon recovery and improving the status of vulnerable populations in the face of climate change and other threats.



**Exhibit 3: PCSRF and State Funding Allocations by Project Type**

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).



*Southern Resident killer whale. Photo: Candice Emmons, NOAA Fisheries.*

extinction in the near future. Taking critical actions now to protect this species is essential for NMFS, state and local governments, tribes, and many other partners in the region.

Three key threats to these whales are: lack of food (preferred salmon prey), high levels of toxic pollutants in their tissues, and disturbance from vessels while they are feeding and resting. Action at all levels is occurring to address these threats. PCSRF funds are directly working to increase the availability of their prey.

Southern Residents' preferred prey are large Chinook salmon, and some Chinook salmon species are also threatened or endangered. Without enough prey for nourishment, these whales can experience decreased reproduction and increased mortality rates. The Recovery Plan for Southern Residents; <https://repository.library.noaa.gov/view/noaa/15975> and the whales' 5-Year Action Plan; <https://repository.library.noaa.gov/view/noaa/10748> under the Species in the Spotlight Initiative; <https://www.fisheries.noaa.gov/topic/endangered-species-conservation#species-in-the-spotlight> call for increasing Chinook salmon prey populations to ensure an adequate food base for recovering the Southern Residents.

## V. Program Spotlight: Supporting Native Subsistence in Western Alaska

Salmon harvest is a lifeline for many in rural Alaska, where subsistence fishing provides food security for communities that otherwise must pay high prices for food staples. Since 2000, PCSRF has dedicated approximately \$240.0 million to Alaska and Native Alaskans for the conservation of salmon and steelhead habitat and maintenance of populations

necessary for native subsistence fishing. The program has also leveraged nearly \$51.0 million in non-PCSRF contributions for these projects within Alaska. In addition to supporting these traditional practices and the cultural heritage of Native Alaskans, these investments have significant impact on local economies and local job development through monitoring, research, construction, and management efforts.

With funding support from PCSRF, the Arctic-Yukon-Kuskokwim (AYK) Tribal Consortium and Alaska Department of Fish and Game have implemented programs to conserve and recover declining and at-risk stocks necessary for subsistence harvest by more than 50 tribes and communities just within the Kuskokwim River basin.

For more information on how PCSRF supports native subsistence in western Alaska, please visit the StoryMap that highlights subsistence fishing in the AYK region and what it means to those who depend on it, at: <https://noaa.maps.arcgis.com/apps/Cascade/index.html?appid=812acef0fed5466095af5da5da3f9efc>

## IV. Recovering Salmon Contributes to Southern Resident Killer Whale Recovery

PCSRF activities are supporting efforts to recover endangered Southern Resident killer whales by increasing the abundance of Pacific salmon they eat.

Southern Resident killer whales – an icon of the Pacific Northwest – continue to decline, with a current population of only 73 individuals. Of all the species NMFS protects, the Southern Residents are one of nine species that are most at risk of



*Salmon hang in a subsistence smokehouse. Photo: Debbie Maas, Alaska Department of Fish and Game.*

# PCSRF at Work: Featured Projects

## ALASKA

Project: Securing Water Rights  
PCSRF Funds: \$4,434,040  
Matching & Other Funds: \$835,322  
Targeted Species: Sockeye, Chinook, Chum, Coho, Pink Salmon, Steelhead (non-ESA listed species)



## CALIFORNIA

Project: Lower Mill Creek Instream Restoration  
PCSRF Funds: \$497,751  
Matching & Other Funds: \$98,925  
Targeted Species: Southern Oregon-Northern California Coast Coho Salmon (T)



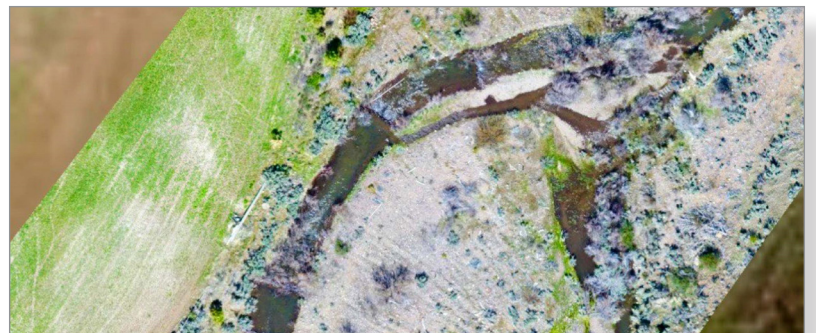
## IDAHO

Project: Little Sawmill Creek Restoration  
PCSRF Funds: \$51,492  
Matching & Other Funds: \$180,552  
Targeted Species: Snake River Basin Steelhead (T), Snake River Spring/Summer Chinook Salmon (T)



## WASHINGTON

Project: Silver Side Channel Revival Implementation  
PCSRF Funds: \$484,435  
Matching & Other Funds: \$91,000  
Targeted Species: Upper Columbia River Steelhead (T)/Upper Columbia River Spring-run Chinook Salmon (T)



## OREGON

Project: Middle Bear Creek Beaver Dam Analog Restoration  
PCSRF Funds: \$104,785  
Matching & Other Funds: \$102,392  
Targeted Species: Middle Columbia River Steelhead (T)

*(T) denotes species listed as "threatened" under the ESA.*

For additional project information, visit FY 2019 Featured Projects at:

<https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/pacific-coastal-salmon-recovery-fund>

# Footnotes & References

- <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.
- <sup>2</sup> Lewis, D.J., Dundas SJ, Kling DM, Lew DK, Hacker SD (2019). The non-market benefits of early and partial gains in managing threatened salmon. PLoS ONE:14(8):e0220260 (<https://doi.org/10.1371/journal.pone.0220260>).
- <sup>3</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>4</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>5</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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