Stock Identification of Salmon Harvested in South Peninsula Fisheries

FY2025 Request: **$2,000,000**
Reference No: **AMD 65215**

AP/AL: Appropriation
Category: Natural Resources
Location: Statewide
Impact House District: Statewide (HD 1 - 40)
Estimated Project Dates: 07/01/2024 - 06/30/2029

Project Type: Research / Studies / Planning
Recipient: NA
House District: Statewide (HD 1 - 40)
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Brief Summary and Statement of Need:
The Western Alaska Salmon Stock Identification Program (WASSIP) comprehensively sampled commercial and subsistence chum and sockeye salmon harvested in coastal marine fisheries of western Alaska from 2006 through 2009. This provided reliable information for fisheries decisions made over the last decade by the Department of Fish and Game and the Board of Fisheries. Up to date information is increasingly necessary to sustainably manage these mixed-stock fisheries. This project builds on projects funded in 2022 and 2023.

Funding:	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total
1004 Gen Fund	$2,000,000						$2,000,000
Total:	$2,000,000	$0	$0	$0	$0	$0	$2,000,000

☐ State Match Required ☐ One-Time Project ☐ Phased - new ☐ Phased - underway ☐ Ongoing
0% = Minimum State Match % Required ☑ Amendment ☐ Mental Health Bill

Operating & Maintenance Costs:

	Amount	Staff
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
Totals:	0	0

Prior Funding History / Additional Information:
Sec14 Ch11 SLA2022 P123 L22 HB 281 $2,000,000

Project Description/Justification:
Stock identification of chum and sockeye salmon commercial fishery harvests in the western Gulf of Alaska
The two projects proposed here involve sampling the commercial fishery catch of chum and sockeye salmon, genetic stock identification of the samples, estimation of stock specific harvest, and reporting of results. The projects are designed to answer separate questions and generally have separate geographic scope. For this reason, they are presented as operating independently but cost savings can be achieved if both are funded. The benefit of these studies over retrospective reanalysis is derived from the ability to design each study to answer specific questions of interest and inform current management, especially during periods of low production and a rapidly changing environment. This is necessary to manage the fishery resource for the benefit of all Alaskans in a sustainable manner.

a. Stock identification of chum salmon harvests in South Peninsula commercial fisheries

Cost: $800,000

This project is designed to provide stock composition estimates of chum salmon harvested in the South Unimak Island and Shumagin Island areas during both the June and post-June commercial fisheries. The stock resolution of these estimates will use the reporting groups applied in the Western Alaska Salmon Stock Identification Program (WASSIP) study[1] with the additional objective of including the *Asia* reporting group in the final analysis.

This project will sample harvests in the Southeastern and South-Central districts and the Southwestern and Unimak districts for four scheduled periods spanning the months of June through August. To successfully provide results for the 20 time/area/gear strata, staff are assigned to three ports (False Pass, King Cove, and Sand Point) to sample harvest delivered from the June and post-June fisheries.

The annual cost for sample collection is $455,000 which includes 3.5 months for each port. Genetic stock identification will be based on 8,000 fish (400 per stratum) and will cost $345,000. All administrative and logistic coordination are in-kind from existing staff.

b. Stock identification of sockeye salmon harvests in western Gulf of Alaska commercial fisheries

Cost: $1,200,000

This project is designed to provide a comprehensive assessment of the stock composition of sockeye salmon harvests in western Gulf of Alaska fisheries. The geographic scope of the WASSIP assessment in the Gulf of Alaska was limited to the central and southern areas and did not extend beyond Chignik. Given the lack of complete information to extend the WASSIP stock composition data to the north and east of Chignik, this study is designed to comprehensively assess the current stock composition and better answer current management questions.

A three-year study will provide the minimum information required to understand the stock composition of the commercial salmon harvests in western Gulf of Alaska salmon fisheries. Funds will support collection and analysis of the samples.

This project has a large, geographically extensive scope, but can leverage the crews and support for the project sampling chum salmon commercial harvest. The sampling design will mirror the original WASSIP (2006-2008), Southeast District Mainland (SEDM) (2010-2012), and Kodiak (2014-2016) studies. Each port will be sampled for the duration of the sockeye run, which typically lasts three months. Genetic stock identification will be based on 32,000 fish (400 per stratum).

1 WASSIP chum salmon reporting groups included: *Kotzebue Sound*, *Coastal Western Alaska* (Yukon River to Bristol Bay), *Upper Yukon River*, *North AK Peninsula - Northern District*, *North AK Peninsula - Northwestern District*, *South AK Peninsula*, *Chignik*, and *East of Kodiak*.

What was accomplished?

To date, chum salmon have been successfully sampled from the commercial fishery harvest during both the 2022 and 2023 seasons (June to September) in Southeastern and South-Central

Districts and the Southwestern and Unimak Districts. Age, sex, length, and tissues for genetic analysis were sampled from more than 11,000 salmon in 2022 and more than 17,000 salmon in 2023. The Gene Conservation Laboratory rapidly analyzed 8,000 of these samples to provide representative stock composition of the 2022 harvest for use in Board of Fisheries decisions in February 2023. Results of the 2023 samples will be available in the spring of 2024.

This project will fund 12 new positions:
Five seasonal Fish & Wildlife Technicians (FWT) 2, five seasonal FWTs 3, and two seasonal Fishery Biologists 1.