

**Assessment and Feasibility of Pilot Station Sonar****FY2011 Request: \$250,000****Reference No: 41514****AP/AL:** Appropriation**Project Type:** Research / Studies / Planning**Category:** Natural Resources**Location:** Pilot Station**Contact:** John Hilsinger**House District:** Bering Straits (HD 39)**Contact Phone:** (907)465-6100**Estimated Project Dates:** 07/01/2010 - 06/30/2012**Brief Summary and Statement of Need:**

This two year project for the Pilot Station sonar project will assess sonar program operations and conduct intensive surveys of the lower Yukon River for an alternate project site. This project contributes to the department's mission by providing high levels of precision and confidence in the passage estimates at Pilot Station, resulting in the addition of a critical tool for managing Yukon River Chinook and chum salmon returns.

<b>Funding:</b>	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016</b>	<b>Total</b>
Gen Fund	\$250,000						\$250,000
<b>Total:</b>	<b>\$250,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$250,000</b>

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input checked="" type="checkbox"/> Phased - underway	<input type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

**Operating & Maintenance Costs:**

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

\$500,000 in CFEC receipts in FY07; SLA 06, ch. 82, p. 71, l. 31

**Project Description/Justification:**

Chinook salmon are the most commercially valuable species of salmon returning to the Yukon River; and are also the most important subsistence species. Harvests occur on mixed stocks spawning from above the Canadian border to the lower reaches of the river. Successful management of this resource requires a method for estimating the total population of Chinook salmon that return to the river each year and the available harvestable surplus. Sonar has been used for this purpose, however, department managers know that sonar under counts the return by some proportion, because some Chinook salmon migrate outside the range of the sonar. This project will determine the extent to which the counts are missing fish and provide the basis for developing improved or alternative methods to more accurately enumerate Chinook salmon. A more accurate count of the number of salmon returning is expected to increase the number available for harvest and the incomes of commercial fishermen and processors. This project will improve the ability of the department to maintain desired escapements while achieving the maximum, biologically sustainable harvest.

This project will continue some of the work started in FY07 under a previous capital project, which evaluated Yukon River Chinook salmon stock composition using genetics to assist in estimating total run. Additionally, a suite of methodologies will be employed to evaluate and improve Pilot Station sonar operations. Methodologies would include historical data analysis, deploying side scanning

sonar to increase detection range, operate a deep net test fishing program upstream and downstream of sonar site to assess species apportionment, and contract with a qualified vendor to conduct intensive site surveys upstream and downstream of the existing site to assess potential new project locations

This project is designed to help the division meet *End Result 1: Stable or increasing economic and social benefits derived from the harvest and use of fish, shellfish, and aquatic plants in Alaska* by increasing management precision to provide for subsistence needs along the Yukon River and make fish available for commercial fishing when runs are strong enough. This will occur through strategies *A1: Ensure the conservation of natural stocks of fish, shellfish and aquatic plants based on scientifically sound assessments, and A2: Sustain fisheries on stocks of fish, shellfish and aquatic plants based upon the control and regulation of harvests through responsive management systems.* More accurate assessments of Chinook salmon run strength will assist managers in meeting spawning escapement goals for both US and Canadian stocks while also making harvestable surpluses available to subsistence and commercial fisheries.