Updated Project Title: Developing an Alternative Model for Sustainable Commercial Salmon Fisheries of the Lower Columbia River Sub-basin.

Location: Cathlamet, WA (Wahkiakum County)

Project Period: 9/1/19 (Start)

Federal Funding Requested: $285,646

Research Priority: I.B.1 - Promotion, Development, and Marketing; Community Vitality.

A. PROJECT SUMMARY (2 PAGES)

Bycatch impacts from non-selective conventional gears in Pacific Northwest commercial salmon fisheries impede the recovery of ESA-listed fishes and constrain commercial fishing opportunities (Lichatowich et al. 2017). This problem can result in underutilization of hatchery salmon, failure to rebuild depressed fisheries, suppressed market prices for fishermen, economic inefficiency, and harm to working water fronts (NMFS 2011). To identify a solution to the problem, Wild Fish Conservancy (WFC) and local commercial fishermen conducted a two-year study funded by NOAA’s National Bycatch Reduction Engineering Program (BREP) to evaluate a sustainable alternative—a modified pound net trap—as a stock-selective harvest technique. Results of this study demonstrated that fish traps can effectively target hatchery reared fall Chinook and coho salmon while dramatically reducing bycatch mortality rates for ESA-listed fishes relative to conventional gears (Gayeski and Tuohy 2018; Tuohy et al. 2018).

Given promising results from the post-release survival study, WA State authorized evaluation of commercial viability of the first pound net fishery in over 83 years during the late-summer/fall of 2018 (WDFW 2018). This project also investigated use of value-added practices. Ultimately, the test fishery confirmed that the technology—paired with use of value-added practices—can generate substantial revenue to fishers and processors, even during seasons with poor salmon returns. WA recognized the success of the test fishery, stressing that management would “consider initiating a rule-making process to implement pound net as a legal gear for commercial harvest of salmon” if successful yet again in a 2019 fall test fishery (WDFW 2018).

Moving forward, further NOAA BREP funded research is scheduled for spring and early-summer seasons on the Columbia to establish post-release survival rates for spring Chinook and sockeye salmon in 2019 and investigate a new gear modification to further reduce bycatch mortality to zero by eliminating all air exposure and handling of wild fishes. These data will put stock-selective fish traps in position for commercial implementation beyond just late-summer and fall fisheries of the Columbia. With generous support from the S-K program, we can
complete the final test fisheries required to implement the gear at a broader-scale and develop plans to establish a resilient and sustainable fishery that may be replicated coastwide; this will provide substantial benefit to wild fish, fishermen, and working waterfronts of the region.

Proposed Activities:

WFC, WDFW, and partners propose a unique fisheries research, development, promotion, and marketing project to build the foundation for sustainably certified trap fisheries utilizing stock-selective harvest techniques and best business practices in the lower Columbia Sub-basin (Wahkiakum County, WA) (Pre-proposal #19WCR028 accepted; full proposal encouraged). This work will benefit US fishers and fisheries and enhance fishing community vitality through the following means: increasing fishing opportunity, promoting access to underutilized/invasive stocks, collecting data on underutilized stocks, fostering best business and value-added practices, meeting State/Federal conservation and management goals, building sustainable fisheries, developing collaborative and improved regional marketing opportunities, and increasing opportunities to use existing infrastructure to keep working waterfronts viable. Operating a modified pound net trap in test fisheries from August through November 2019, WFC, WDFW, NOAA Fisheries, the University of Washington (UW), WA Sea Grant, local fishermen, local processors/marketers, and other interested fisheries management agencies will:

1) Evaluate Trap Fisheries: Identify successes and failures of bringing underutilized hatchery salmon resources to market with a new technology for fishing fleets;

2) Perform Research: Monitor stock-composition, further assess bycatch mortality, identify means to improve gear efficiency/sustainability and meet conservation and management goals;

3) Develop and Implement Value-Added/Direct Marketing Practices: Form a steering group (including fishermen, processors, WDFW, NOAA, WFC, UW, Sea Grant, and other interested fisheries management agencies) to ensure use of best practices in harvesting, icing, processing, and marketing to maximize customer base and pricing for sustainably-harvested fish;

4) Initiate Sustainable Market Certification: Initiate certification of trap fisheries with Monterey Bay Aquarium’s Seafood Watch to increase product profile, customer base, and fish value.

5) Plan for the Future: Develop gear regulations and standards, consider future implementation of emerging commercial fishery in accord with RCW 77.65.400 and RCW 220-360-040, identify potential trap sites, streamline the application and permitting process, and raise awareness of alternative harvest tools; identify stakeholder mitigation options and appropriate economic incentives to facilitate alternative gear transition in the lower Columbia River.

Benefits and Outcomes: These proposed actions will help research, establish, promote, and market (primary program priority I.B.1) a functional and profitable sustainable commercial fishery model that can maximize utilization of targeted resources and fishing/business opportunities while achieving conservation and management objectives. Furthermore, processes and regulations will be developed to ensure responsible and successful implementation of the gear at a broader-scale. This partial retooling of Columbia fishing fleets, shore services, and port facilities may redirect the evolution of working waterfronts toward a sustainable and innovative path, maintaining and improving job opportunities for fishers and industry while recovering ESA-listed salmonids of substantial economic, cultural, spiritual, and ecological importance.