



Exxon Valdez Oil Spill Trustee Council
Long-Term Research and Monitoring, Mariculture, Education and Outreach
Annual Project Reporting Form

**For Instructions for each section below, see Reporting Policy, II (B); the Reporting Policy can be found on the website, <https://evostc.state.ak.us/policies-procedures/reporting-procedures/>*

Project Number: 23220301

Project Title: Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone

Principal Investigator(s):

Aaron Poe, Alaska Conservation Foundation (PI)
Kevin Berry, Department of Economics, University of Alaska Anchorage
Willow Hetrick, Chugach Regional Resources Commission
Elizabeth Hoover¹, Environmental Science, Policy, & Management, University of California, Berkeley
Jacqueline Keating², Alaska Department of Fish and Game, Division of Subsistence
Dune Lankard, Native Conservancy
Bren Smith³, GreenWave LCC
Michael Stekoll, University of Alaska Southeast
Thomas F. Thornton, Alaska Coastal Rainforest Center, University of Alaska Southeast

Reporting Period: Feb 1, 2023 – January 31, 2024

Submission Date (Due March 1 immediately following the reporting period): March 30, 2024

Project Website: N/A

Please check all the boxes that apply to the current reporting period.

Project progress is on schedule.

Project progress is delayed

¹ Dr. Hoover has had to significantly decrease her engagement in the project and will no longer be Co-PI on the work.

² Pending budget amendment approval, Jackie Keating is taking over as the lead Co-PI focused on subsistence harvest data collection and analysis.

³ Mr. Smith has left the project and will no longer be Co-PI on the work.



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Due to not receiving a signed contract for funding until October of 2022 we remain delayed in some aspects of the project. Further, two significant personnel changes as well as two new opportunities caused the project team to re-evaluate our approach relative to Hypothesis 1 & 2. These changes are documented below and were shared in December 2022 with our program officer from ADF&G and EVOSTC staff in January of 2023.

Budget reallocation request.

We completed a process working with partners to generate a draft budget revision that helps to bring in ADF&G Division of Subsistence and makes some adjustments to other partners' budgets to account for an increase in travel costs beyond what was expected in 2021 when the proposal was written. We shared a version of this budget with EVOSTC staff in late December of 2023 which was conceptually approved providing we reorganize the ADF&G budget into the proper Trustee tab. That has been completed but we are now instead able to draw on new science coordination capacity being recruited by ACF with an expected start date of mid-May 2023.

Personnel changes.

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- Bren Smith from GreenWave has stepped down as a Co-PI due to GreenWave cutting back their overall engagement in the project due to timing and a shift in their focus away from Alaska; Emily Stengel of GreenWave will no longer be engaged as well. GreenWave's key contributions to the project relative to expertise around understanding economics of processing and markets for kelp products will now come of senior staff person: Samantha Garwin and she will be engaged in supporting UAA's survey design and analysis associated with H3. ACF will pursue a contract to help pick up the additional pieces of survey implementation that would have been originally implemented by GreenWave.
 - Elizabeth Hoover was supposed to manage a household subsistence survey program in the spill region over the 5 years of the project with assistance from a student at U.C. Berkely, but will no longer be able to conduct this work. Via a contract, her expertise on Indigenous food systems will still inform the design of narrative questions around historical ecology and cultural uses of kelp to be implemented by others from the team (Chugach Regional Resources and Native Conservancy) as well as an expected collaboration with ADF&G Division of Subsistence. Dr. Hoover will also assist with ethnographic analysis of these narrative questions. Because of this change U. C. Berkeley will no longer receive a subaward and Dr. Hoover will not be a co-PI on the project.
 - Dr. Jen Rose who had originally been identified as a contractor for Native Conservancy to lead their cultural values mapping efforts, is no longer available to serve in this role and these efforts will now be led by David Guilfoyle who is an expert in cultural values mapping and an Indigenous planning procedure known as Healthy Country Planning.



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- Jacqueline Keating “Jackie” is the senior researcher for the ADF&G Division of Subsistence, Southcentral Region. She holds an M.S. in Sociology from Utah State University and has over a decade of experience leading complex multidisciplinary research projects in remote Alaska communities, particularly in the Kodiak and Chugach regions. Pending final budget approval, she would join the project as Co-PI leading our subsistence collection and synthesis work.
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1. Summary of Work Performed:

With the late awarding of funds in October, the departure of some key personnel, and efforts to revise our approaches (particularly in H2) our work has been somewhat delayed; however, we are proud to report on significant progress this year. From an overall operational perspective we are happy to share that subawards have been established for the core partners defined in the original proposal (Native Conservancy, University of Alaska Fairbanks, Chugach Regional Resources Commission, and University of Alaska, Anchorage). We continue to hold monthly team check ins for all Kelp Values Partners and hold a focused team meeting in Kodiak in December of 2023 which helped us integrate the work across the three hypothesis teams.

H1: Evaluation of historical ecology, distribution and practices of traditional Indigenous mariculture and subsistence harvest activities is necessary for effective site selection of potential future mariculture sites. Key highlights from 2023 include:

- Two post-doc positions have been hired to support the ethnographic components of this work. Karen Grosskruetz and Michaela Korodimou will serve as ¼ time FTEs supporting Dr. Thornton in those efforts.
- The team has drafted historical and cultural use questions to supplement ‘Life History’ interviews of subsistence users (see below in H2) conducted by ADF&G and during Healthy Land and Sea Planning efforts led by the Native Conservancy.
- The team is developing a synthesis model drawing on kelp and seaweed ethnographic efforts led in southeast Alaska with the aim of applying it to the spill zone.
- Dr. Stekoll has created a draft interactive, online database of all existing seaweed specimen collections known from the spill zone and is exploring a method with Native Conservancy to engage Alaska Native Villages collaborating with this project in a new, targeted specimen collection effort in collaboration with Native Conservancy.
- Dr. Tom Bell (subcontractor for UAS) began applying methods using landsat TM imagery, that he completed under a prior project in southeast Alaska, to the spill zone to map current distribution of surface kelps.



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- The Native Conservancy has contracted David Guilfoyle, an anthropologist who specializes in a community engagement methodology known as Healthy Country Planning that was developed in collaboration with Aboriginal communities in Australia. David and his team from Applied Archaeology International (AIA) modified and piloted this methodology for application as: ‘Healthy Land and Sea Planning’ (HLSP) for Kelp Values project. This was accomplished in collaboration with the Alaska Native village of Ouzinkie.

- Native Conservancy contracted Kodiak Archipelago Leadership Institute (KALI) to help connect villages in the Kodiak region to the Kelp Values project--including securing the partnership with Ouzinkie. KALI continues to connect AIA and the HLSP team with communities in that region by inviting presentations at its twice annual convenings for villages in the Archipelago.

- Native Conservancy and AIA are also working together with the Chugach Regional Resources Commission (CRRC) to connect the HLSP process to communities in Prince William Sound and Lower Cook Inlet including organizing presentations and a forum to engage with interested communities at their annual meeting (which will occur in March of 2024).

- Working with Ouzinkie, Native Conservancy and AIA also piloted a process for recruiting and paying interns in villages to help collect data and coordinate components of the HLSP efforts. We hope that we can repeat this capacity building approach in other villages that partner with the Kelp Values project.

H2: New kelp mariculture activity that is led by Indigenous communities in the spill zone will have additional benefits relative to subsistence harvest and commercial fishing activities at the local scale. Some key highlights from 2023 include:

- ADF&G has compiled 20+ years of mapped subsistence harvest data for the spill zone into a GIS producing the most complete synthesis possible based on data collected by their agency and has shared these layers with the H1 project team for use in ethnographic and HLSP efforts.

-ADF&G has also compiled all tabular and spatial records of seaweed harvest reported over the last 30+ years of their survey efforts in the region and shared with ethnographic group in H1.

-ADF&G, Dr. Thornton, and contractor Dr. Hoover have also worked to adapt the ‘Life History’ expert interview approach for subsistence users used by the Division of Subsistence so that it can be integrated into HLSP efforts led by Native Conservancy.



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-Collectively, Native Conservancy and ADF&G have received interest and invites from six villages in the spill region to collaborate on a combination of subsistence data collection and HLSP efforts.

H3: Kelp mariculture led by Indigenous communities presents a viable economic activity that can help attenuate continued impacts on commercial fishing in the spill zone. This research area was slated to begin in Year 2 so is just now getting underway but a couple of highlights from 2023 include:

- University of Alaska Anchorage brought on senior research staff, Barbara Johnson to assist with organizing focus groups for wholesalers in the seaweed industry.

- Initial design efforts have been made toward the willingness to pay surveys for West Coast consumers.

- This team is also exploring a way that economic information might be collected at the community level in the villages partnering in HLSP efforts to document the economic needs they may face if they choose to pursue kelp mariculture development.

In closing the Kelp Values team has made significant progress during 2023 which was in many ways our first full year of project work. We have reorganized our team and synchronized efforts around data collection in regard to our engagements with communities. Our second field season of engaging communities begins March of 2024 and after this year we may return to EVOS Trustees with some proposed changes to improve our overall approach and respond to realities on the ground as we work with communities. For example, it may not be realistic to accomplish full HLSP engagement efforts (which require multiple visits to communities) with as many as 10 communities during the period of performance. We may look to shift to reaching more communities regularly at the gatherings hosted by KALI and CRRC where we have opportunities to engage with all 17 Tribes from the Spill Zone.

2. Products:

Peer-reviewed publications:

NA

Reports:

NA



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Popular articles:

NA

Conferences and workshops:

The Kelp Values project has been presented at the Spring and Fall Forums held by the Kodiak Archipelago Leadership Institute in 2023.

Public presentations:

The HLSP process and methodology has been presented in Ouzinkie.

Data and/or information products developed during the reporting period:

ACF produced a simple website splash page for the Kelp Values project at KelpValues.org so that we can offer a basic introduction to the effort and the team behind it.

Data sets and associated metadata:

A draft GIS synthesis of mapped subsistence harvest records has been completed by ADF&G.

Additional Products not listed above:

A draft Healthy Land and Sea Plan for the Alaska Native Village of Ouzinkie has been completed by Native Conservancy and their contractors.

3. Coordination and Collaboration:

The Alaska SeaLife Center or Prince William Sound Science Center

NA

EVOSTC Long-Term Research and Monitoring Projects

NA

EVOSTC Mariculture Projects



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Melissa Good and her staff presented an update from the Mariculture ReCon project (23220301) at our annual team meeting in Kodiak, and Aaron Poe offered a virtual update from the Kelp Values project for their annual meeting in Cordova in January of 2024. In both briefings, we agreed that we could continue to collaborate on outreach and engagement with communities understanding that we don't want to exhaust them with parallel and overlapping requests.

EVOSTC Education and Outreach Projects

We continue to work in close contact with Melissa Good on the CORaL Network Program (23220400) team who regularly attends our monthly check ins. She and some of her staff also attended our in-person meeting in Kodiak and shared about CORAL efforts as did Chugach Regional Resources Commission (CRRC). Our continuing partnership with CRRC and our connection to Melissa Good and Sea Grant will be a good collaboration going forward when it comes to sharing information from the Kelp Values project.

Trustee or Management Agencies

Pending approval ADF&G Division of Subsistence will join our project team. We worked with CRRC, Native Conservancy, and a number of other regional partners on a proposal that, if funded, would establish a regional resilience partnership for the spill zone. Proposal development allowed us to engage with a number of NOAA affiliates including the Kachemak Bay Research Research, Kasitsna Bay Research Center, and Kodiak Marine Science Center, as well as the USGS Climate Adaptation Science Center and Kodiak National Wildlife Refuge among others. In these discussions, we were able to share about the Kelp Values project and how information collected from the HLSP efforts could inform resilience priorities for this new proposed partnership.

Native and Local Communities

Project partners Native Conservancy, Kodiak Archipelago Leadership Institute, and Chugach Regional Resources Commission have both made outreach on the project to multiple Tribes within the region. Native Conservancy's contracted group Applied Archaeology International worked in collaboration with Ouzinkie throughout the summer and fall and made a visit to Nanwalek and Cordova to meet the Eyak Tribe. They have also had conversations with Tatitlek ahead of planned visits in 2024.

4. Response to EVOSTC Review, Recommendations and Comments:

NA



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5. Budget:

This is the revised budget that was approved by the Executive Director (see FY24 Proposal Amendment and No Cost Extension request).

Budget Category:	Proposed FY 22	Proposed FY 23	Proposed FY 24	Proposed FY 25	Proposed FY 26	5-YR TOTAL PROPOSED	ACTUAL CUMULATIVE
Personnel	\$49,625	\$27,338	\$103,783	\$134,183	\$128,232	\$443,161	\$46,104
Travel	\$0	\$5,876	\$11,288	\$14,884	\$8,650	\$40,698	\$3,978
Contractual	\$316,428	\$475,556	\$567,276	\$543,349	\$495,684	\$2,398,292	\$126,378
Commodities	\$0	\$0	\$750	\$799	\$972	\$2,521	\$3,131
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Indirect Costs (report rate here)	\$64,059	\$89,035	\$110,777	\$111,890	\$104,546	\$480,307	\$29,233
SUBTOTAL	\$430,112	\$597,804	\$793,874	\$805,105	\$738,083	\$3,364,978	\$208,824
General Administration (9% of subtotal)	\$38,710	\$53,802	\$71,449	\$72,459	\$66,427	\$302,848	N/A
PROJECT TOTAL	\$468,822	\$651,607	\$865,323	\$877,564	\$804,511	\$3,667,826	
Other Resources (In-Kind Funds)	125,000.00	-	-	-	-	\$125,000	