

EVOSTC FY22 Program and Project Update

Last year, the Trustees approved 39 multi-year projects that were submitted in response to the [Fiscal Years 22-26](#) (5-year) and [Fiscal Years 22-31](#) (10-year) Invitation for Proposals. Two habitat projects were reauthorized, two new archaeological museum projects were approved, and two marine facilities projects were also awarded additional funding. A total of 43 multi-year projects are in operation for FY22. This document provides a brief description of new projects that were funded, along with updates for continuing projects that were funded prior to this year. The release of FY22 project funding was delayed; as a result, many of these projects were not able to begin until mid-summer. EVOSTC staff are working to finalize contracts and support the projects as they begin work.

Details for each project including funding amounts approved can be found in the [FY22 Work Plan](#). Full proposals are also available to download from the [Restoration Project Search](#) page.

General Restoration, Habitat Enhancement and Protection Projects

The FY22-26 Invitation included three focus areas: General Restoration, Habitat Enhancement and Habitat Protection. The Trustees approved three new general restoration projects, two new brick-and-mortar general restoration projects, and five new habitat enhancement projects for FY22 – FY26. Oversight of these projects was added to the list of ongoing projects currently managed by EVOSTC staff, which also include two habitat protection projects.

General Restoration Projects

22220502 Clean Water Act Assessment of Beaches with Lingering Oil. This project will assess the applicability of the Clean Water Act impairment criteria to certain beaches. At the Trustees' direction, the Principal Investigator (PI) updated their proposal to respond to questions from the Science Panel after the fall 2021 meeting. The Program Officer and the Executive Director reviewed and provided edits on the revised proposal, and it is now complete and ready to be implemented starting in FY23, as proposed.

22220507 Port Graham Corporation General Restoration and Habitat Protection. This project consists of a land audit and compilation of a region-wide base map and records system by Port Graham Corporation. Work has started and contracts are still being processed following the July 2022 approval of the expenditure of funds by the Alaska Legislature's Legislative Budget and Audit Committee. Staff are working to expedite this and all other contracts so that work approved by the Trustees can progress as quickly as possible.

22220508 Geospatial Wetlands and Hydrography Data across the EVOS Region. This project is a continuation of the United States Fish and Wildlife Service's (USFWS) work that began in FY21 to produce wetland and hydrologic data for EVOS-region watersheds. Initial field work was completed this summer in the Kodiak and Shelikof Strait regions, and the first review of

data and a field report are scheduled for September. Similar work will be completed in Cook Inlet, Prince William Sound, and the Copper River Delta.

General restoration projects also include two brick-and-mortar archaeological resources projects approved by the Trustees in 2021:

22220503 Alutiiq Museum and Archaeological Repository Sustainability Project and

22220505 Chugach Region Archaeological Repository and Museum

EVOSTC staff have been working with the State of Alaska Department of Commerce, Community, and Economic Development (DCCED) to make funds available as soon as possible so that these projects can begin. Staff have also been working collaboratively with proponents for each project to facilitate and support their progress.

Habitat Enhancement Projects

22220602 Kenai Peninsula Streambank Rehabilitation and Protection. This is an Alaska Department of Fish and Game (ADF&G)-led streambank rehabilitation and protection project on the Kenai Peninsula, specifically to locate, assess, and prioritize sites and install restoration and rehabilitation projects over a three-year period.

22220608 Port Graham Habitat Enhancement. This project aims to improve stream crossings essential to restore road access subsistence resources for the community of Port Graham.

22220610 Kenai Peninsula Stream Watch. This funding supports the operation of a volunteer-driven riverbank restoration and education effort at high recreational use areas.

22220611 Big Eddy Restoration and Improvements. Funding for this project is for the restoration of aquatic habitat along a degraded bank on the Kenai River, as well as replacement of aging boardwalks and other public access improvements for State Park users by Kenai River Sportfishing Association.

22220612 Eyak Lake Weir Replacement Project. This project is led by the Copper River Watershed Project, the United States Forest Service (USFS), and the State of Alaska Department of Transportation (DOT) and involves the construction of an upgraded upstream passage structure into Eyak Lake, which will preserve and improve salmon and Cutthroat Trout spawning and rearing habitat.

19190121 Funny River and Morgan's Landing Riverbank Restoration. This continuing ADNR State Parks Division-led project is expected to be completed in 2023 or 2024.

17170116 ADNR/DPOR Riverbank Habitat Restoration & Protection. This project consists of six streambank and restoration projects on the Kenai River, all of which are led by ADNR State Parks Division. Most of the work has already been completed, with some remaining work to be done in 2023.

17170119 Kodiak Island Enhancement Project Buskin River Watershed. This project was recently completed by the USFWS and several partners.

15150123 Kenai Peninsula Aquatic Ecosystem Restoration Project. This project entailed culvert replacement and fish passage work on the Kenai River, and was recently completed by ADF&G.

18180120 Copper River Watershed Aquatic Ecosystem Enhancement Project. This project involved the replacement of under-performing culverts in the Copper River watershed. It was recently completed by several partners, led by USFWS.

PWS4009 Habitat Small Parcel: Meals Hill – Port Valdez. Phase I of this project was the purchase of the Meals Hill property, located in Valdez, by the Trustee Council. Phase I is complete. Phase II is now ongoing, which involves the installation of recreational improvements. The property is currently owned and managed by the City of Valdez.

20180119 ADNR/DPOR Outreach Project. Several outreach projects were completed, which included 30th anniversary outreach products and interpretive displays highlighting habitat enhancement and restoration projects that were installed on EVOSTC habitat enhancement sites (Dimond Creek/Homer, Mineral Creek/Valdez, and Eshamy Bay future PUC/Prince William Sound.). The remaining funds will be used in Spring/Summer 2023.

20200135 Eagle Rock Facilities Improvement. This planned recreational enhancement project will begin on the Bookey Parcel once the purchase is completed (see KEN4018, below).

Habitat Protection Projects

KEN4015 Killey River. This ongoing project involves the acquisition of privately-owned lands near the Killey and Kenai Rivers confluence. Once acquired, these lands will be incorporated into the Kenai Peninsula Wildlife Refuge. The parties have been working on a fair market value appraisal of the property; if the landowner approves of the appraised value, other due diligence would be completed before closing.

KEN4018 Bookey Parcel. EVOSTC staff have led the collaboration of multiple parties involved in this project, including ADNR's Realty and State Parks Divisions, and the U.S. Department of the Interior's Bureau of Indian Affairs (BIA) and Bureau of Land Management (BLM), in coordination with the landowners. Once the purchase price and terms of purchase are finally set, due diligence steps and closing are anticipated to follow quickly, at which point State Parks can begin the planned recreational enhancements on the property (20200135), which are also being funded by EVOSTC.

Long-term Research & Monitoring, Mariculture, and Education & Outreach Projects

The FY22-31 Invitation included three focus areas: Long-term Research and Monitoring (LTRM), Research to Support the Development of Mariculture, and Education and Outreach Projects. The Trustees approved three new LTRM projects, three new mariculture projects, and three new education and outreach projects for FY22 – FY31. These new projects began this year and do not have any significant updates yet. Oversight of these projects was added to the list of ongoing projects currently managed by EVOSTC staff, which also include 18 continuing LTRM projects that were also approved for funding, as well as the Data Management Program.

LTRM Projects

22220201 Chugach Regional Ocean Monitoring Program. This is a new, Tribally-led project to monitor baseline oceanic conditions and phytoplankton dynamics for safe shellfish harvest in Prince William Sound and Lower Cook Inlet, Alaska.

22220202 Continuation and Expansion of Ocean Acidification Monitoring. This is a new project that is meant to reestablish high-resolution ocean acidification monitoring along the Seward Line and in Prince William Sound in May, July, and September, and expand monitoring along an additional transect off Kodiak.

22220203 Walleye Pollock-Pacific Herring Interactions. This is a new project that will involve research and monitoring activities to assess the pollock population in Prince William Sound, as well as the investigation of ecological interactions between pollock and herring.

22200127 Ocean Acidification Sampling. This continuing project is progressing as planned. Final data quality assurance and control are underway for analyzed samples. FY22 is the last year of the project.

22110853 Pigeon Guillemot Restoration. FY21 is the third year of monitoring for mink presence or absence; no mink were detected. Numbers of guillemots recorded along shoreline surveys has more than tripled since mink removal efforts began in 2014, increasing from 69 in 2014 to 252 in 2021.

22210128 Status and Trends of EVOS-injured Seabirds. The FY21 field season could not be fully conducted because of COVID-19 mitigation efforts. The PI's request to reallocate unspent funds to FY22 was approved and work is proceeding. Reallocation of funds was also approved to increase sampling effort in Kachemak Bay during the July population estimate surveys.

2222LTRM Gulf Watch Alaska Long-Term Research and Monitoring Program (GWA-LTRM). The GWA-LTRM program is designed around projects that monitor key ecosystem metrics in the spill-affected region and has been part of a consortium of dozens of researchers from multiple agencies and organizations. This program merged the Gulf Watch Alaska (21120114)

and Herring Research and Monitoring (HRM 21120111) programs starting in FY22. Below are status updates for the GWA and HRM programs.

GWA Program is managed in five-year increments and the past year has been busy closing out years six-ten (FY17-21), which include preparing long-term data sets for publication online (AOOS data portal & DataONE), drafting final reports (15) for the Trustee Council, and finalizing contributions for a special issue peer review journal titled “Understanding Ecosystem Processes in the Gulf of Alaska” (Deep Sea Research II: Topical Studies in Oceanography - vol. 198). This collaborative publication consists of 13 papers from research by three large marine ecosystem programs in the Gulf of Alaska: GWA and Herring Research & Monitoring (EVOSTC), GOA-Integrated Ecosystem Research Program (North Pacific Research Board), and northern GOA Long-Term Ecological Research (National Science Foundation).

HRM Program The focus of the herring program has been completing analysis and producing final reports. All projects successfully collected their planned samples in FY21. The herring population is continuing to build as the 2016-year class fully recruited into the spawning stock. Current population estimates are close to those in 2010, having rebounded from historic low levels. The 2022 preliminary Prince William Sound aerial spawn estimate is 32.7 statute mile-days-of-milt with another 41.1 mile-days-of-milt observed at Kayak Island. Age-sex-length samples were collected around PWS and at Kayak Island and preliminary data indicates that the 2016-year class remains dominate at both locations. Spawning locations and patterns continue to shift between years. The shifting spawning patterns and lack of whales to indicate herring aggregations have hampered acoustic survey efforts. The VHSV antibody prevalence has decreased significantly in PWS with the recruitment of the 2016-year class. Examination of factors affecting mortality indicate that Pink salmon returns have the strongest relationship to herring mortality, but that relationship is inconsistent through time. Weaker relationships were found with Humpback whales, Walleye pollock, and the North Pacific Gyre Oscillation index. Surprisingly, herring that survived exposure to oil at the embryonic and larval stages were less susceptible to VHSV exposure. The genetic analysis showed shifts in the genetic expression related to the oil exposure. PIs also found that larger herring are more likely to be observed migrating from PWS into the Gulf of Alaska. Most of the herring left, or spent time, within Montague Strait. Most that were observed leaving left by July and began returning by September, although the exiting and returning occurred for many months.

GWA-LTRM is transitioning into research and monitoring years 11-15 (FY22-26). PIs have had a busy field season this spring/summer and will continue into the fall. PIs are currently working on summaries of their ecosystem indicators for NOAA’s annual Ecosystem Status Report due mid-September. Approximately 20 GWA-LTRM ecosystem indicators are part of this report which is presented to the North Pacific Fisheries Management Council to help inform their decision process. The program management team has helped secure a new five-year NOAA grant to facilitate Trustee Council-funded projects that are from non-Trustee Council agencies/organizations. The program management team is also preparing for the program’s

annual PI meeting being held in Cordova this fall. This will be a critical opportunity for all of the PIs to meet researchers from newly-funded projects (ocean acidification, herring & salmon interactions, pollock and herring interactions), hear about observations and data trends from projects, discuss potential collaborations & partnerships, listen to guest science speakers, and hear from mentored students.

22170113 Data Management Program. This is a continuing project that provides cost-effective data management services for all the continuing Gulf Watch Alaska and Herring Research & Monitoring projects, new long-term research and monitoring projects, new mariculture projects, and three new general restoration projects. Disruptions of 2020-2021 field seasons due to the COVID-19 global pandemic resulted in data collection and submission delays throughout 2021 and 2022. While many of the FY20 and FY21 data submissions have been processed and prepared for publication to the GOA Data Portal, most projects received a no-cost extension to compensate for data collection and processing delays through January 2023. Data Management staff and Council staff hosted a Data Management introduction and briefing for all new PIs whose projects are required to archive and make publicly available data generated according to the requirements in the Council's Data Policy. Axiom software engineers are enhancing existing web-based tools to improve the discoverability of GWA and HRM project-level data.

Mariculture Projects

22220300 Prince William Sound Kelp Mariculture Development for Habitat Restoration and Local Economy. This new project aims to establish a sustainable kelp farming industry in PWS based on best practices that fulfill long-term restorative economic development goals.

22220301 Social, Cultural and Economic Assessment of Kelp Mariculture Opportunities for Coastal Villages within the EVOS Spill Zone. This new project will assess how Indigenous kelp mariculture operations within the spill zone would be socially beneficial, economically viable, and compatible with local cultural values of coastal communities.

22220302 Sustainable Mariculture Development for Restoration and Economic Benefit in the EVOS Spill Area. This new project will support restoration, habitat enhancement, and economic development through research and partnerships between scientists and seaweed and shellfish farmers.

Education and Outreach Projects

22220400 Community Organized Restoration and Learning Network. This new project will create and maintain an ongoing framework that builds the capacity of existing resources within the Exxon Valdez Oil Spill impacted region to ensure that current scientific information, skills, and activities are publicly accessible and serve ongoing needs as identified by local communities.

22220403 Prince William Sound Natural History Symposium. This new project will fund the annual PWS Natural History Symposium, which began in 2018 and is free to the public and held in mid-May, and provides the latest science, research and heritage news by experts from throughout the PWS region.

22220405 Preservation of Subsistence and Cultural Practices for the Alaska Native People of the Chugach Region. This is a new project that will help fund the Chugach Region Cultural Camps, which will help continue teaching the Alaska Native subsistence and cultural lifestyle in the Chugach Region, and is vital for future generations of Alaska Natives and the economy in the Chugach Region to come.

Marine Facilities Projects

Additional funding for two continuing marine facilities replacement and improvement projects were approved by the Trustees in 2021:

19190125 Prince William Sound Science Center Facilities Project. The new five-acre PWSSC waterfront campus held its ribbon cutting event on June 4th, 2022.

20200131 Alaska SeaLife Center Facilities Improvement Project. This project will help repair, replace, and improve ASLC's building infrastructure, life support, and research support systems.

EVOSTC staff have been working with the State of Alaska Department of Commerce, Community, and Economic Development (DCCED) to make funds available as soon as possible for these projects.