Exxon Valdez **Oil Spill Trustee Council**
Long-Term Research and Monitoring Program
Annual Program Status Summary

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

Program Number: 24120113

Program Title: EVOSTC Data Management Program

Program Lead(s): Carol Janzen, Alaska Ocean Observing System
Rob Bochenek, Axiom Data Science

Reporting Period: February 1, 2024 – January 31, 2025

Submission Date (Due March 1 immediately following the reporting period): February 24, 2025

Program Website: AOOS Gulf of Alaska Data Portal https://gulf-of-alaska.portal.aoos.org/

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

☒ **Program progress is on schedule.**
The Data Management Program is proceeding as originally scheduled.

☐ **Program progress is delayed**
n/a

☐ **Budget reallocation request.**
n/a

☐ **Personnel changes.**
n/a

1. Summary of Work Performed:

The goal of the EVOSTC Data Management Program is to provide critical data management to support to the Gulf Watch of Alaska Long-term Research and Monitoring (GWA-LTRM) Program, the EVOSTC-funded Non-Program Projects (NPP), and data producing project components associated the Mariculture Research and Restoration Consortium (Mar ReCON) in order to assist study teams in efficiently meeting their objectives and ensuring data collected or consolidated through the effort are organized, documented, and available for their use and for future use by the larger scientific community. We proposed in 2021 to be successful in meeting this goal with the budget provided by leveraging the extensive cyberinfrastructure and data management capacities of both the Alaska Ocean Observing System (AOOS) and Axiom Data Science (Axiom), and utilizing the existing, collaborative relationships with program PIs to ensure continuity in the data collected across efforts.

The workplan for Year 3 (Fiscal Year 2024 – FY24) of the 5-year (2022-2026) Data Management Program responds to the EVOSTC's continued need for cost-effective data management that also maintains continuity and builds upon the efforts of the prior contract years (FY2012-2016 and FY2017-2021). The FY24 Data Management workplan and budget includes data management support for both the GWA-LTRM, multiple funded Non-Program projects (NPPs) and Mar ReCON project components approved by EVOSTC. Changes to the originally proposed and approved Data Management workplan and corresponding budgets in FY22, FY23 and FY24 include:

- GWA-LTRM - Add Project 22120114-N Long-term Killer Whale Monitoring (FY22 and FY23).
    - Data Management Program costs were added to the original GWA-LTRM Data Management budget line for FY22 and FY23 for the addition of this project to the Data Management Program.
    - New costs were added to the original proposal budget to provide data management services for this project for both FY22 and FY23 only.
    - This project was not continued in FY24 and the Data Management Program budget did not have this project in its original nor its FY24 budget, so no changes were needed.
- NPPs – Remove Project 22220203 Walleye Pollock Pacific Herring Interactions (funded in FY22 only; no longer separately funded starting in FY23).
    - Ovivory work from this project will be conducted within existing GWA-LTRM projects starting in 2024 through 2025 - 111-E (Hershberger) for sample collection, and 111-F (Morella) for sample analysis.

  - No new costs were incurred for the corresponding changes made to the GWA-LTRM Program projects and the Data Management Program costs for this NPP were completely removed from the overall Data Management Program budget for FY23-FY31.
- The LTRM Program Management Team (PMT) was approved to redirect funds from the Science Coordinator position in project 2222LTRM-A (Program Coordination and Science Synthesis) to specific data collection and analyses within other projects that were compromised due to funding reductions in FY22-FY26, or loss of funding for FY27-FY31.
  - Parts of one project that was fully funded (114-C Forage fish project) relied on data collected by parts of other projects that were not funded, specifically projects 114-E Long-term monitoring of marine bird abundance, and 111-R/K Prince William Sound aerial juvenile fish surveys.
  - These two projects were brought back into the GWA-LTRM Program for FY24, FY25 and FY26 for a total of three years, and required data management services that were not budgeted for in prior Data Management Program Budgets.
  - New costs were added to the original proposal budget to provide data management services for these changes for the remaining three years of the Data Management Program FY24, FY25 and FY26 only.

NPPs have their data management objectives embedded in the comprehensive Data Management Program and share the same goals and objectives as the GWA-LTRM Program projects. Three of the NPPs are continuing projects from the prior 5-year Data Management Program, and include projects:

1. 22200127 Gulf Watch Ocean Acidification Monitoring (ended FY22 – January 31, 2023)
2. 22110853 Pigeon Guillemot Restoration Project (ended FY23 – January 31, 2024), and
3. 22210128 Status and Trends of EVOS Injured Seabirds in the Kenai Peninsula Coast and Kachemak Bay (ending FY25 – January 31, 2026).

Funding to complete data management support for these ongoing NPPs was approved by the EVOSTC in January of 2022 as part of the current five-year funding period (2022-2026).

Attachment 1 provides a list of GWA-LTRM Program projects and continuing and new NPPs that are supported by the Data Management Program approved fiscal year budgets in 2022, 2023 and 2024. A list of Mar ReCON project components is provided in Attachment 2, which contains

the data submission inventory status tables for the entire Data Management Program. These lists may be subject to change relative to future Council funding decisions.

Data management goal(s) will be achieved with the following objectives:

> **Objective 1**. Initiate data management services and oversight for the GWA-LTRM Program and Non-Program projects.
>
> **Objective 2.** Standardize and provide access to data sets from the prior EVOSTC-funded efforts for continuity and integration.
>
> **Objective 3.** Facilitate, monitor and evaluate regular data submissions and metadata generation in the Research Workspace.
>
> **Objective 4**. Provide, maintain and modify technical infrastructure for user groups to access information produced or processed by the GWA-LTRM Program and Non-Program projects.
>
> **Objective 5.** Publish and promote data collected by the GWA-LTRM Program and Non-Program projects, making them available for research, management and general audiences.
>
> **Objective 6.** Execute management, user feedback and internal and external communications related to the GWA-LTRM Program and Non-Program project data and data products.
>
> **Objective 7.** Ensure long-term preservation and dissemination into publicly accessible repositories at the term completion.

The following activities were accomplished during the FY24 period.

OBJECTIVE 1. *Initiate data management services and oversight for the GWA-LTRM Program and Non-Program projects.*

This objective was largely completed during Year 1 of the 2022-2026 program. Data management kick-off meetings were hosted by Axiom with the GWA-LTRM Program and NPPs to orient project investigators (PIs) to the EVOSTC data sharing policy and discuss the program-level data management strategy. During Year 3, follow-up orientations were provided on an as-needed basis as data submission activities continued during FY24, in particular with the newly started NPPs and the Mar ReCON project components. The updated comprehensive data inventory for tracking of data sharing deliverables to the EVOSTC reflects GWA-LTRM projects, NPPs and Mar ReCON project components (Attachment 2). New campaigns and projects were created in the Research Workspace for PIs to regularly submit data and metadata.

Further, Axiom held meetings with NPP, Mar ReCON and GWA-LTRM PIs to discuss data sharing activities specific to their individual projects.

Updated data management procedures efficiently guide project PIs through data documentation and curation throughout the lifetime of their projects and are available to all PIs through the Research Workspace, but also continue to be discussed in one-on-one meetings held with project PIs. The intent is to provide a data management framework with defined procedures for the collection, quality, storage, maintenance, and dissemination of project data that ultimately improves the accessibility and long-term usability of EVOSTC-funded data. Procedures may be followed by PIs at any time during the preparation of their data sets but are most useful when considered at the onset of project planning and implemented during data collection.

Using information generated during the first-year kick-off meeting with GWA-LTRM Program managers, an inventory of data expected to be generated by GWA-LTRM sampling efforts was adapted from the 2017-2021 efforts. This inventory describes the data sets, indicates the investigator responsible for the data, and notes the status of metadata for each data set (see Attachment 2). This inventory also provides a scaffold for which the Data Management Team can track data and metadata progress throughout the life of the project. Continuing NPPs, new NPPs and Mar ReCON project components are now included in this inventory, but under separate categories.

Objective 2. *Standardize and provide access to data sets from the prior EVOSTC-funded efforts for continuity and integration.*

Objective completed, Jan 2023. To build upon data management services from the prior five-year effort, the folder structure in the Research Workspace for all continuing GWA-LTRM projects was updated to assist PIs in maintaining an organized approach for storing data and metadata for the 2017-2021 funding period. New data from the 2022-2026 program are to be stored in the Research Workplace alongside the data collected from the 2017-2021 and the 2012-2016 periods for easy access by the study teams. This organization is intended to facilitate the archive of timeseries data that is a continuum across five-year funding increments.

OBJECTIVE 3. *Facilitate, monitor, and evaluate regular data submissions and metadata generation in the Research Workspace.*

The Data Management Program team has been actively guiding and monitoring data submissions for the Year 1 (FY22), Year 2 (FY23) and Year 3 (FY24) GWA-LTRM, NPP and Mar ReCON data sets. Data from 2023 were due to the Research Workspace on December 1, 2024. Using information generated during the data management planning meetings with PIs, a comprehensive

inventory of data expected to be generated by all funded GWA-LTRM, NPP and Mar ReCON projects was created and is used to track annual data submissions (Attachment 2). This inventory is updated annually for any new data types, and describes the data sets, indicates the PI responsible for the data, and notes the status of data and metadata submission to the Research Workspace for each data set. The inventory serves as a tool to track the status of data and metadata submissions to the Research Workspace against data that are expected to be generated over the project term. A similar approach was used during the 2017-2021 Data Management Program, where the most current data submission inventory status was shared with the GWA and Herring Research and Monitoring (HRM) Program leads throughout the year. The first two years GWA-LTRM Program data submission inventory was shared with Program leads on October 16, 2024 for the annual fall GWA-LTRM PI meeting.

A year-end FY24 data submission inventory (as of February 17, 2025) of expected and submitted data to the Research Workspace can be found in Attachment 2. Except for the three continuing NPPs from FY21, all FY22 and onward GWA-LTRM and NPP projects listed on this inventory were newly funded in FY22, and the second round of expected data from FY23 were due to the Research Workspace on December 1, 2024. In many cases with the ongoing GWA-LTRM and continuing and new NPP projects, the data sharing expectation is being met or exceeded (Figures 1a-c). Some data sets are submitted through other data management platforms (e.g., federal data, regional program data sets), and are shared with the EVOSTC Research Workspace later. Further, some projects are typically delayed each year due to late-in-year sampling schedules, longer sample processing times, and data processing delays, but are still considered compliant, as long as the Data Management Program team is aware of approved or negotiated delays. Funding delays in FY22 delayed many of the Mar ReCON project components, hence FY23 is the first year most of these new efforts are expected to produce and submit data (Figure 1d). The Data Management Team is in contact with PIs who have yet to submit their FY22 and FY23 data, and if necessary, will establish a data submission compliance plan and document progress on meeting their respective data sharing requirements. GWA-LTRM Program Leads have also been notified for projects in their portfolio that have missing data.

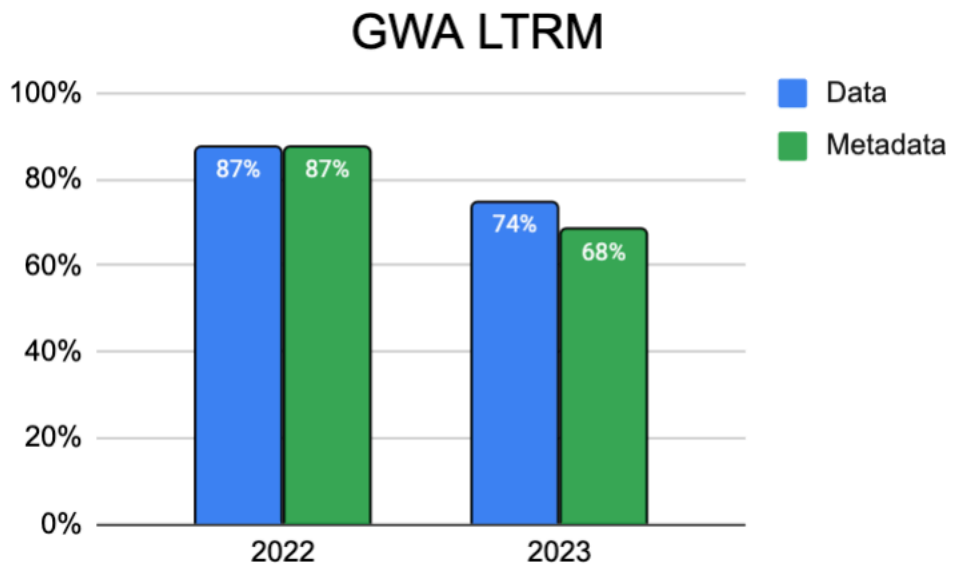

Figure 1a.

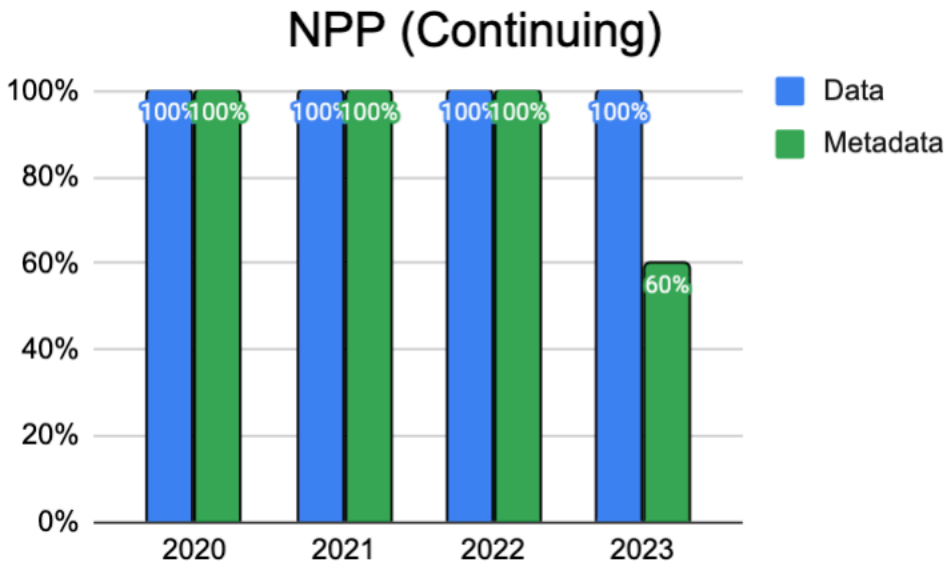

Figure 1b.

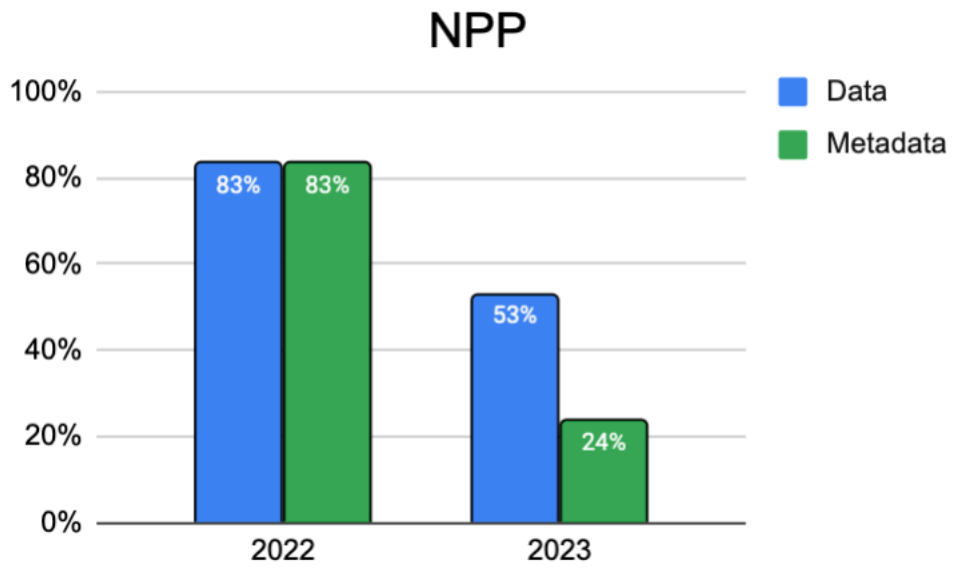

Figure 1c.

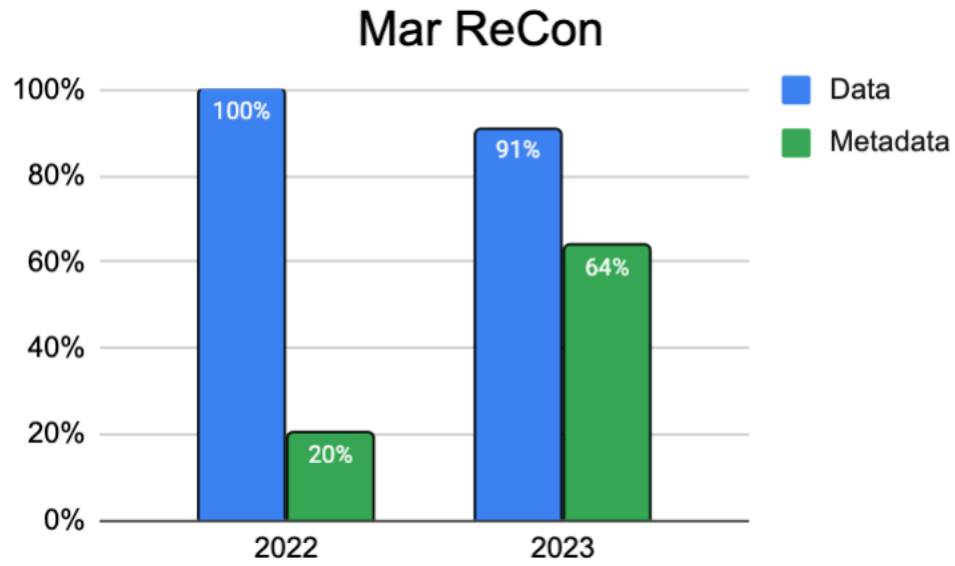

Figure 1d.

Figures 1a-d. The percentage of expected data (blue) and metadata (green) that have been shared in the Research Workspace for a) GWA-LTRM projects for FY22 and FY23; b)

continuing NPPs for FY20-FY23; c) new NPPs for FY22 and FY23; and d) Mar ReCON project components for FY22 and FY23. Note that some projects have delayed data submissions that are permissible due to known circumstances (field work or sample processing timing, staffing changes, etc).

OBJECTIVE 4. *Provide, maintain and modify technical infrastructure for user groups to access information produced or processed by the GWA-LTRM Program and Non-Program projects.*

This objective is ongoing. In fall 2022, campaigns in the Research Workspace were established for each of the EVOSTC programs and projects, including GWA-LTRM Program, NPPs and Mar ReCON. The campaigns are organized by funded projects within the program and shared with the respective PIs. The Research Workspace serves as a web-based platform for PIs to upload, share and discover data sets and supporting documents, and to rapidly author metadata. The Research Workspace includes an integrated metadata editor to capture detailed documentation on data sets and produce ISO 19110 and 19115-2 metadata outputs while implementing important labor-saving steps for PIs to reduce the tedium of metadata creation.

The Research Workspace is connected to the DataONE Network for long-term preservation of data in the most contextually relevant environment (Figure 2). The intent of this capability is to ease the ingestion of data collections to national archives by simplifying the submission and upload of content and metadata.

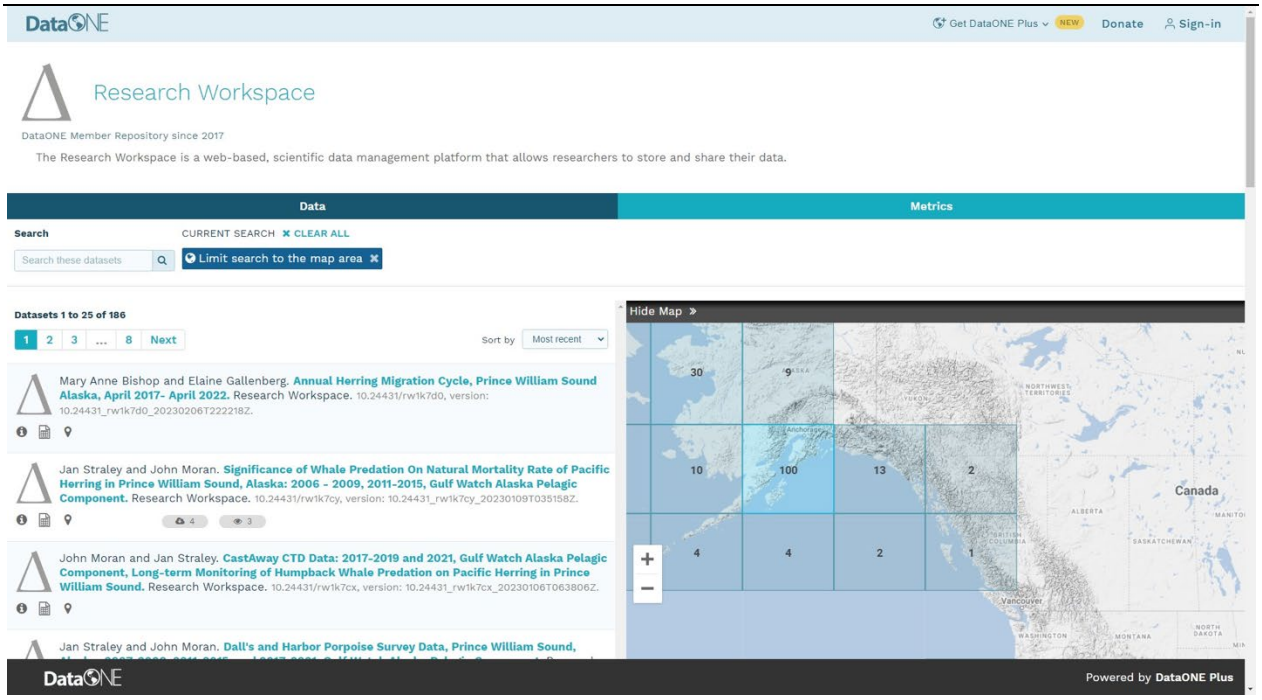

Figure 2. A screenshot of the Research Workspace Member Node in the DataONE Search catalog where EVOSTC-funded project data are archived for long-term preservation and made accessible by broader scientific audiences for re-use.

OBJECTIVE 5. *Publish and promote data collected by the GWA-LTRM Program and Non-Program projects, making them available for research, management and general audiences.*
To maximize data use for analysis, synthesis, review, and application, and to support the restoration and management of spill injured resources, data from EVOSTC-funded projects will be made widely available through multiple pathways. During the research phase of this funding cycle, data will be securely available for internal use through the Research Workspace. When data are ready to be published, they will be made available through the existing, public-facing AOOS hosted GOA Data Portal (https://gulf-of-alaska.portal.aoos.org/) for exploration and discovery. At the end of the fifth and 10th years (2026 and 2031), final data will be archived through DataONE for long-term preservation, noting that research or process studies data will likely be submitted at the 5-year or 10-year project term submission. Some of the data that were made final prior the end of the 5-year program have already been uploaded to DataONE. The current status of data submission for GWA-LTRM projects, the continuing and new NPPs, and the Mar ReCON project components can be found in Attachment 2.

Three continuing NPPs were initially underway during the 2017-2021 Data Management Program and data submissions for each of these projects are all on track. Final data will be published to the GOA Data Portal and archived with DataONE at the close of each continuing NPP project. The following summarizes progress with the continuing NPP data submissions and management efforts:

- Project 22200127 Gulf Watch Ocean Acidification Monitoring was a three-year project which started in FY20 and ended in FY22 (January 31, 2023). This project had final data expected and delivered at the end of the project term in December 2023, and no more data are expected from this project.
- Project 22110853 Pigeon Guillemot Restoration was also started in FY20, and included data management activities for the legacy pigeon guillemot count data from 2012-2018 and five years of new data spanning 2019-2023 to ensure these data are properly archived. Data submissions for 2012 through 2023 are now complete, and additional data related to these efforts collected earlier in 2008 have also been submitted.
- Project 22210128 Status and Trends of EVOS Injured Seabirds in the Kenai Peninsula Coast and Kachemak Bay was initiated in FY21 and continues into the new FY22-31 Data Management Program through FY25 (January 31, 2026). Data have been uploaded to Research Workspace for both Kenai and Kachemak Bay portions and Axiom is working with the PIs to finalize data and metadata. Discussions to reconcile U. S. Fish and Wildlife Service and EVOSTC data sharing requirements as well as the FY24 budget delays slowed down initial progress, but is currently back on track.

New NPPs were just being established in Years 1 and 2 (FY22 and FY23) of the 2022-2031 Data Management Program, and data collection is now underway for most. Additional data management kick-off calls were held during the fall of 2024 with the lead PIs of three NPPs (Projects 24220301, 24220502 and 24220507) in order to maintain regular communications, status updates, and progress on the data management. The data inventory table in Attachment 2 has been updated for all NPPs to better reflect the expected datasets now that projects are underway. The following summarizes progress with some of the more complex new NPP data submissions and management efforts:

- Project 24220301 Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone – This project has produced two 2023 spatial datasets and data have been shared to Research Workspace for one of them. Axiom is working with the PIs to review and finalize these datasets. One of these data products identify subsistence harvest locations and areas of cultural importance,

digitized from results of interviews with community members. Proper data sharing and hosting agreements need to be drawn up before they can be transferred outside of ADF&G servers, where they are currently approved for storage. Audio-based files of recorded interviews have also been conducted and are undergoing indigenous community review. Axiom is working with the project team to determine the best way to preserve this information long-term while following indigenous data governance best practices. Except for the historic and contemporary kelp mapping portions of this project, all other distinct planned data products are synthesized reports or analyses to be generated from indigenous knowledge, and involve human subjects through interviews and surveys. Due to the sensitive nature of the information, most products may not be finalized until closer to the end of the project period. Given the large number of planned sub-components and diverse data products in this project, the Data Management Team attended a virtual monthly project meeting in November 2024 and will again in-person in mid-February 2025 to provide extra data management support and coordination.

- Project 24220507 Port Graham Corporation general restoration and habitat protection – This project has produced one dataset in 2022 and several in 2023. Many of the datasets are imagery and spatial data with large data volumes. Data products with smaller data volumes have been added to the Research Workspace and metadata for those are in progress. Axiom is working with the PIs on efficient data transfer for the large files. The 2023 LiDAR-derived elevation models have long processing times, and may also have longer lead times before they are ready for submission.
- Project 24220508 Geospatial wetlands and hydrography data across the *EVOS* region – This project will only have one final data product produced in year 2025 after integrating public feedback throughout the project period.

OBJECTIVE 6. *Execute management, user feedback and internal and external communications related to the GWA-LTRM Program and Non-Program project data and data products.*

The Data Management Team participates in GWA-LTRM Program, Mar ReCON, and other project meetings, responds to user feedback, and maintains regular communication about project progress with the EVOSTC staff and will continue to do so throughout the life of this program. In addition to the kick-off meetings mentioned in Objective 1, the Data Management Team participated in other meetings to give a status update on the program and meet with individual project PIs, including presenting data submission reminders to GWA-LTRM Program PIs at the October 2024 PI meeting in Cordova, AK, and attending quarterly meetings held virtually.

To maintain an efficient data management process, regular and structured feedback is required from data management system users (e.g., the program leads and PIs). Given the maturity of how data are ingested and curated, the Data Management Team continue to gather feedback through group discussion, one-on-one meetings and email correspondence. In addition to gathering feedback throughout the year, the Data Management Team maintains regular contact with PIs over email to provide notification of approaching deadlines for data or metadata submission, ask questions related to these submissions, and/or respond to PIs' questions about data management procedures and responsibilities.

Objective 7. *Ensure long-term preservation and dissemination into publicly accessible repositories at the term completion.*

There was no activity under this objective to report during this reporting period. Work for this objective will begin in Year 4 (FY25) to ensure the completeness of all project data and metadata records prior to archive in the last year of the funding cycle.

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2. Products:

The Alaska Ocean Observing System and Axiom completed and submitted the Fiscal Year 2023 (Year 2) Annual Report to the EVOSTC for the EVOSTC Data Management Program (2022-2031) on 29 February 2024 (due March 1, 2023). A revised report was submitted on April 11, 2024. This report was approved with only minor revisions by the EVOSTC on July 22, 2024.

- Janzen, Carol, and Rob Bochenek, 2024. 23120113 EVOSTC Data Management Program: https://evostc.state.ak.us/media/8207/23120113-data-management-program-fy23-annual-report.pdf

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3. Coordination and Collaboration:

The Alaska SeaLife Center or Prince William Sound Science Center

The subaward from Prince William Sound Science Center (PWSSC) to AOOS (PI Janzen) for overall coordination of the Data Management Program and oversight of the GWA-LTRM Program data management is being administered through the AOOS fiscal agent, the Alaska SeaLife Center (ASLC). A separate PWSSC subcontract is being administered directly with

Axiom Data Science (PI Bochenek) for their technical role in the overall Data Management Program, and for direct oversight of the NPPs data management.

EVOSTC Gulf Watch–Long-Term Research and Monitoring Program

Building upon previous experiences, the Data Management Program continued to strengthen the existing collaborative relationship with the GWA-LTRM Program to effectively meet their data management needs. The Research Workspace provides the necessary open-access across program teams for file sharing and transparency of data progress. Backing this infrastructure is a Data Management Team that is well-coordinated with GWA-LTRM Program Managers and science teams to assist with timely data submissions and accuracy of metadata authoring, and to ensure data and products are available to general science and resource management communities.

The following coordination within the GWA-LTRM Program occurred during this reporting period:

- Coordination with GWA-LTRM Program: Coordination within the GWA-LTRM Program routinely occurred through email, phone communications, and regularly scheduled in-person meetings. The Data Management Team attended the annual GWA-LTRM PI meeting in October 2024 and the quarterly PI meetings to provide Data Management Program updates and to be responsive to data management and decision-support needs. Data Management staff were also available to meet with PIs at the 2025 Alaska Marine Science Symposium and held office hours at the AOOS building in Anchorage on January 29, 2024.
- Coordination with individual GWA-LTRM projects: Regular communication was maintained with individual PIs through regular email and/or phone conversations to finalize data from the prior funding term and complete data submission to DataONE.

EVOSTC-funded Non-Program Projects

The Data Management Team maintained communications with NPP PIs through regular email correspondence and virtual meetings.

EVOSTC Mariculture Projects

The Data Management Team checked in with the Mar ReCON lead in November 2024 to update the expected data product inventory list and will plan to check in at a quarterly interval to make sure expectations are still aligned. Participation in the annual Mar ReCON in-person meeting in

January 2025 served as both the winter quarterly check-in and a chance to work with PIs directly on data and metadata submissions. Like other meetings, the EVOSTC data sharing procedures and timelines were reviewed, in addition to discussing expectations for the program data management strategy. During the meeting, a demonstration of the Research Workspace was given and a discussion about the logical organization of data sets in the Research Workspace relative to the various program components occurred. Additionally, one-on-one meetings between the PIs and the Data Management Team were offered to develop individual data management plans for each of the Mar ReCON project components to help inform the data submission inventory. All expected data submissions through 2023 are complete, with one dataset under review by the Data Management Team.

Trustee or Management Agencies

AOOS brings a significant level of leveraged resources, infrastructure, regional data management projects and partnerships to the EVOSTC Data Management Program. For one, AOOS maintains certification as a Regional Coastal Observing System (RCOS) under the authority of the Integrated Coastal and Ocean Observation System Act of 2009 (ICOOS Act). The ICOOS Act directs NOAA to certify and integrate RAs into the U.S. Integrated Ocean Observing System (IOOS). Such integration formally establishes the role of the RA within the U.S. IOOS and ensures that the data collected and distributed by the RA are managed according to the best practices, as identified by NOAA. To become certified, applicants must demonstrate they meet and maintain the requirements established by the U.S. IOOS's Regulations to Certify and Integrate Regional Information Coordination Entities. Certification documents are updated regularly and RCOS programs are recertified every 5 years. AOOS received its latest certification in 2022, which is valid through 2026.

As the AOOS data team, Axiom works to provide data management, visualization and preservation services, including providing access to and facilitating the use of the Research Workspace. The team offers similar services to a number of other programs that receive funding from or are administered or overseen by representatives from the EVOSTC and associated agencies. EVOSTC agencies include: 1) National Oceanographic and Atmospheric Administration (NOAA); 2) US Department of Agriculture/US Forest Service; and 3) the US Department of the Interior (Bureau of Ocean Energy Management, US Fish and Wildlife Service, National Park Service and the US Geological Survey). Three state agencies are also represented by the EVOSTC including: 1) Alaska Department of Fish and Game (ADF&G); 2) Alaska Department of Environmental Conservation; and 3) Alaska Department of Law.

The EVOSTC-funded Data Management Program benefits trustee or management agencies on many levels. For one, all data and final data products produced by the GWA-LTRM Program and NPPs are (or will be) made accessible and publicly available through the AOOS hosted GOA Data Portal and the DataONE Member Node, both of which are no-cost services that can be accessed by any member of the public. Other programmatic and statewide data sets are also accessible via the AOOS data system of portals, and can be accessed by the same end-user accessing the historical GWA and HRM data sets and new GWA-LTRM data sets. DataONE provides access to data across multiple member repositories, supporting enhanced search and discovery of earth and environmental data. Other associated programs affiliated with EVOSTC and affiliated management agencies are given below (Table 1).

Table 1. *Associated EVOS Trustee Council Programs and agencies for which AOOS and Axiom coordinate data management as well as other services.*

Group Agency	Level and Type of Coordination and How the Project Assisted EVOSTC Trust or Agency Work	Representative
Regional Coastal Ocean Observing System: Alaska Ocean Observing System (AOOS) Integrated Ocean Observing System (IOOS), National Ocean and Atmospheric Administration (NOAA)	Develop the integration of ocean and coastal observing capabilities, in collaboration with Federal and non-Federal partners, to maximize access to data and generation of information products, inform decision making, and promote economic, environmental, and social benefits Through the IOOS grant, AOOS provides partial support on a few GWA-LTRM supported projects --Seward Line environmental drivers ship time support, Kachemak Bay environmental drivers project support, and the Ocean Tracking Network Herring acoustic tracking arrays in PWS. AOOS has invested a significant portion of their IOOS support to host the regions most sophisticated data acquisition system, which hosts the AOOS Ocean Data Explorer data visualization portal, the GWA Website, and the GOA Data Portal subsystem. This data system is highly leveraged by other large research and ecosystem-based programs (listed here). AOOS supports all the related EVOSTC and management agency projects by providing the backbone and base support to keep this data system operational, and also by providing data management services to all these groups and their projects.	Carl Gouldman, Director, IOOS Dave Easter, Regions, Budget, and Policy Division Chief, IOOS

Group Agency	Level and Type of Coordination and How the Project Assisted EVOSTC Trust or Agency Work	Representative
Integrated Ocean Observing System (IOOS), National Ocean and Atmospheric Administration (NOAA)	Develop community standards for sensor observations; make regional data nationally accessible. This supports all the data management activities for the prior GWA and HRM Programs and will for the LRTM-GWA Program, as well as other projects listed here, and provides data in the correct formats to meet national and international data preservation and archival requirements and standards.	Derrick Snowden, Data Management and Coordination (DMAC) System Architect, IOOS
Alaska Ocean Observing System (AOOS) Data Management, (AOOS grants support funded through NOAA's IOOS Program)	Provide data management; cyberinfrastructure support. Works directly with member and non-member organizations to ingest and document new data sets as well as historical data assets that might not be available elsewhere or in a consistent useful format; data visualizations and product development Support data collection, data sharing and acquisition for the entire region of Alaska, including the GOA. These data are provided to the public and all interested users free of charge via the AOOS Data System. The AOOS Data System leverages their own data portal system to support other programs listed in this table.	Sheyna Wisdom, Executive Director, AOOS
Central and Northern California Ocean Observing System (CeNCOOS) Data Management, NOAA	Provide data management; cyberinfrastructure. Works directly with member and non-member organizations to ingest and document new data sets; visualizations Tools developed for CeNCOOS can be leveraged for other projects listed on this table, as well as ingestion capability of new data types. Activities undertaken for CeNCOOS can be leveraged across the national IOOS Data System and other regions using the AOOS Data System platform.	Henry Ruhl, Executive Director, CeNCOOS
Southeast Coastal Ocean Observing Regional Association (SECOORA) Data Management, NOAA	Provide data management; cyberinfrastructure. Works directly with member and non-member organizations to ingest and document new data sets; visualizations Tools developed for SECOORA can be leveraged for other projects listed on this table. as well as ingestion capability of new data types. Activities undertaken for SECOORA	Debra Hernandez, Executive Director, SECOORA

Group Agency	Level and Type of Coordination and How the Project Assisted EVOSTC Trust or Agency Work	Representative
	can be leveraged across the national IOOS Data System and other regions using the AOOS Data System platform.	
Southern California Coastal Ocean Observing System (SCCOOS) Data Management, NOAA	Provide data management; cyberinfrastructure. Works directly with member and non-member organizations to ingest and document new data sets; visualizations Tools developed for SCCOOS can be leveraged for other projects listed on this table. as well as ingestion capability of new data types. Activities undertaken for SCCOOS can be leveraged across the national IOOS Data System and other regions using the AOOS Data System platform.	Clarissa Anderson, Executive Director, SCCOOS
Core Program, North Pacific Research Board (NPRB)	Provide guidance given on data and metadata best practices; access to and facilitation of the Workspace; organization and archiving of historical projects; Now the Data Management Team for NPRB. NPRB funds are administered through the EVOSTC. Data management from the NPRB Programs is being managed by Axiom Data Science, and is leveraging the Research Workspace and the data system developed by AOOS to make data public and available for sharing, and standardized for long-term, national archival.	Matthew Baker, Science Director, NPRB Jo-Ann Mellish, Program Manager, NPRB
Arctic Integrated Ecological Research Program (AIERP), NPRB	Fully facilitate data and metadata management working directly with PIs, from initial sharing within the group to long-term archiving at NPRB	Danielle Dickson, Program Manager, NPRB
Arctic Marine Biological Observation Network (AMBON), Bureau of Ocean Management (BOEM)	Coordinate all data management activities for AMBON using the Workspace	Katrin Iken, Lead Principal Investigator, Professor, College of Fisheries and Ocean Sciences, University of Alaska, Fairbanks

4. Response to EVOSTC Review, Recommendations and Comments:

2024 EVOSTC Science Panel Review Comments:
The Data Management Program (DMP) is one of the most important components of the scientific work supported by EVOSTC. The lasting impact of decades of research rests in large part on its quality. The Science Panel is impressed by the thoroughness and efficiency of the reported work, which is proceeding as originally scheduled. We especially welcomed the efforts to initiate and incorporate new projects and to standardize and provide access to prior EVOSTC funded projects. The latter is essential for synthesis and integration and was completed by the end of the FY24 reporting period. The DMP handles a vast inventory of data sets (detailed in an attachment to their FY23 report) and reports a high level of participation by investigators in timely submission of data and metadata. The DMP team recognizes, and details, the many legitimate reasons why some submissions can be delayed and works with PIs when needed to facilitate delivery of any missing data. In short, this is a key program with well-defined objectives and is on course.

2024 EVOSTC Science Panel Review Comments:
The Science Panel does not have any concerns about this project.

2024 EVOSTC Executive Director Comments:
This project is progressing as planned. Annual reports were submitted on time, well-organized and comprehensive. Funding for this project is managed by NOAA. Due to the subsequent budget amendments (cancellation of project 203, approval of reinitiating data collection of some LTRM projects), the expenses provided on the annual report budget summary are not easy to track, but the PI is responsive to budget questions and staff have worked with the PI to reconcile the budget. Staff do not have any concerns at this time.

Data Management Program Response: No response required. Thank you.

5. Budget:

The Budget Report for FY24 uses the most recent Data Management Program Budget approved in February 2024 and summarizes comprehensive AOOS/Axiom Data Science cumulative expenditures through FY23. Note, the 45% indirect is not charged on the AOOS subaward amounts in this budget, which included personnel and contractual costs during this reporting

period. The Data Management Program has completed FY23 spending and is expecting the delayed funding for FY24 activities to be available in February 2025. No Data Management Program invoices have been processed for FY24 expenditures due to delayed release of funding from NOAA.

Table 2. Data Management Program expenditures through January 31, 2025. (*Note: FY24 funds were not yet available before January 31, 2025*).

Budget Category:		Proposed FY 22	Proposed FY 23	Proposed FY 24	Proposed FY 25	Proposed FY 26	5- YR TOTAL PROPOSED	ACTUAL CUMULATIVE
Personnel		$237,237	$238,005	$264,755	$259,028	$243,862	$1,242,887	$471,787
Travel		$0	$600	$0	$600	$0	$1,200	$3,455
Contractual		$1,247	$1,345	$1,323	$1,423	$1,404	$6,742	$2,592
Commodities		$0	$0	$0	$0	$0	$0	
Equipment		$0	$0	$0	$0	$0	$0	
Indirect Costs	Rate = 45%	$101,144	$101,321	$113,185	$110,430	$103,421	$529,502	$202,465
SUBTOTAL		$339,628	$341,271	$379,264	$371,481	$348,687	$1,780,331	$680,299
General Administration (9% of certain projects)		$30,567	$30,714	$34,134	$33,433	$31,382	$160,230	N/A
PWSSC Fiscal Administration (10% of certain projects)		$9,522	$9,084	$11,189	$9,740	$6,903	$46,437	
PROJECT TOTAL		$379,716	$381,069	$424,586	$414,654	$386,972	$1,986,997	$1,986,997
Other Resources (In-Kind Funds)							$0	

COMMENTS:
The Data Management Program budget represents Axiom Data Science, the Alaska Ocean Observing System, and the Alaska Sea Life Center and Prince William Sound Science Center as fiscal agents. Indirect rates and exemptions from indirect rates vary. This sheet summarizes all proposed project expenses by category. Please see individual project budgets for detail. There are three main categories for data management: GWA LTRM (Axiom and AOOS), Continuing Non-Programs projects, (Axiom) and New Non-Program project (Axiom). GWA-LTRM 114-N (Killer whale monitoring) project data services costs are included in FY22 and FY23 only. In June 2023, this budget was modified to remove NPP Project Number: 22220203 Walleye Pollock/Herring Interactions from FY23-FY31. In February 2024, this budget was modified to include data management for 2 additional GWA-LTRM projects 114-E (Long-term monitoring of marine bird abundance) and 111-R/K (Prince William Sound aerial juvenile fish surveys) during FY24, FY25, FY26. The FY24 funding release from NOAA was delayed and not awarded to this program until after January 31, 2025. The FY24 expenditures have not been invoiced yet at the time of this report, therefore expenditures reflect funding amounts through FY23.

FY22-26	Project Number: 22120113 Project Title: Data Management Program Primary Investigator: Janzen, Bochenek	NON-TRUSTEE AGENCY SUMMARY PAGE

Attachment 1. A list of actively funded GWA-LTRM and NPP projects by program and EVOSTC Project Number that continue to be supported by the Data Management Program in meeting the EVOSTC data sharing deliverables. Note: The Mar ReCON project components are not included here, but information about these project components can be found in the Mar ReCON Project Data Submission Inventory Table in Attachment 2.

Program: Gulf Watch Alaska Long-Term Research and Monitoring Program (GWA-LTRM)

Project Number	Principal Investigator	Project Title	Years Funded
2222LTRM	Lindeberg & Hoffman	Gulf Watch Alaska Long-Term Research and Monitoring Program (GWA-LTRM)	FY22-31
22120111-C	Branch	Modeling and stock assessment of PWS herring	FY22-31
22120111-E	Hershberger & Paez	Herring disease program	FY22-31
22160111-F	Morella	Herring surveys and age, sex, and size collection and processing	FY22-31
22220111-I	Rand et al.	Ecological interactions between Pacific herring and Pacific salmon in Prince William Sound	FY22-28
23220111-R/K	Scott Pegau	Prince William Sound Aerial Juvenile Fish Surveys	FY24-26
22120114-C	Arimitsu & Piatt	Forage Fish Distribution, Abundance, and Body Condition	FY22-31
22120114-D	Ostle & Batten	Continuous Plankton Recorders	FY22-31
23120114-E	Bishop & Shaefer	Long-term Monitoring of Marine Bird Abundance – Fall and Winter Seabird Surveys	FY24-26
22120114-G	Campbell	Oceanographic Conditions in PWS	FY22-31
22120114-H	Coletti	Nearshore ecosystems the Gulf of AK	FY22-31
22120114-I	Danielson	GAK1 Monitoring	FY22-31
22120114-L	Hopcroft & Danielson	Seward Line Monitoring	FY22-31
22120114-M	Kuletz & Kaler	PWS Marine Bird Surveys	FY22-31
22120114-N	Matkin	Long-term Killer Whale Monitoring (ENDED JANUARY 31, 2024)	FY22-23
22120114-O	Moran, Straley & Wild	Humpback Whale Predation on Herring	FY22-31
22200114-P	Esler & Lindeberg	Lingering Oil Component Project	FY25, FY30

Program: Continuing EVOSTC-funded Non-Program Projects (NPPs) initiated prior to FY22

Project Number	Principal Investigator	Project Title	Years Funded
22200127 ENDED	Hetrick, Campbell, Baird, Evans	Ocean acidification sampling (ENDED JANUARY 31, 2023)	FY22 (original: FY20-22)

22110853	Kuletz, Kaler, Irons	Pigeon guillemot restoration	FY22-24 (original: Legacy data 2012-2019 and new data FY20-24)
22210128	Hollmen, Labunski et al.	Status and trends of EVOS injured seabirds	FY22-25 (original: FY21-25)

Program: New EVOSTC-funded Non-Program Projects (NPPs) initiated in FY22

Project Number	Principal Investigator	Project Title	Years Funded
22220201	Branson & Hetrick-Price	Chugach Regional Ocean Monitoring Program	FY22-31
22220202	Hauri	Continuation and expansion of ocean acidification monitoring*	FY22-31
22220203 TERMINATED	Rhea-Fournier et al.	Walleye pollock-Pacific herring interactions* (ENDED JANUARY 31, 2023)	FY22
22220300	Hetrick-Price	PWS kelp mariculture development for habitat restoration and local economy	FY22-26
22220301	Poe et al.	Social, cultural, and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	FY22-26
22220302	Hoffman et al.	Sustainable mariculture development for restoration and economic benefit in the EVOS spill area (Mar ReCON)	FY22-31
22220502	Lomax	Clean Water Act assessment of beaches with lingering oil	FY23-26
22220507	Colligan	Port Graham Corporation (PGC) general restoration and habitat protection	FY22-26
22220508	Thielke	Geospatial wetlands and hydrography data across the EVOS region	FY22-25

Attachment 2. EVOSTC Data Management Program FY22 Data Submission Inventories for the GWA-LTRM Program, continuing NPPs, newly funded NPPs, and the Mar ReCON Project components. Column entries are as follows:

- '2': Obligation to publish data has been met
- '1': Obligation to share data or metadata to the Research Workspace (RW) has been met
- '0.5': Obligation to share data has been partially met
- '0': Data or metadata are expected for project year, but have not yet been submitted to the RW
- 'NA': Data or metadata are not expected, based on the research and data workplan
- 'P': Process study with data not expected until end of project.

Some entries are further coded to indicate more information related to data expectancies. Ultimately these data sets will be accompanied with fully curated metadata, published to the GOA Data Portal, and archived to DataONE at the end of the funding term.

GWA-LTRM Data Submission Inventory as of February 17, 2025. Many GWA-LTRM data submissions are in RW but still undergoing Axiom-PI review (reflected in updated inventory table), so are yet not captured in "delivered" until they are finalized.

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22120111-C	FY22-FY26	Modeling and stock assessment of PWS herring	age composition	Branch	0[5]	0[5]	0[5]	0[5]
22120111-C	FY22-FY26	Modeling and stock assessment of PWS herring	model codebase	Branch	0[5]	0[5]	0[5]	0[5]
22120111-C	FY22-FY26	Modeling and stock assessment of PWS herring	output data	Branch	0[5]	0[5]	0[5]	0[5]
22120111-E	FY22-FY26	Herring disease program	herring disease prevalence summary	Hershberger	1	1	1	1
22120111-E/F	FY24-FY25	Herring disease program	ovivory data	Hershberger	NA	NA	NA	NA
22160111-F	FY22-FY26	Herring surveys and age, sex, and size collection and processing	aerial biomass observation & routes data	Morella	1	1	1	1

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22160111-F	FY22-FY26	Herring surveys and age, sex, and size collection and processing	aerial survey marine bird & mammal observations data	Morella	1	1	1	1
22160111-F	FY22-FY26	Herring surveys and age, sex, and size collection and processing	ASL data	Morella	1	1	0	0
22220111-I	FY22-FY26	Ecological interactions between Pacific herring and Pacific salmon in Prince William Sound, Alaska	Ecological interactions between Pacific herring and Pacific salmon in Prince William Sound	Rand	NA	NA	1	0[3]
22120114-C	FY22-FY26	Forage Fish Distribution, Abundance, and Body Condition	Forage fish count data	Arimitsu	1	1	1	1
22120114-C	FY22-FY26	Forage Fish Distribution, Abundance, and Body Condition	Forage fish morph data	Arimitsu	1	1	1	1
22120114-C	FY22-FY26	Forage Fish Distribution, Abundance, and Body Condition	Seabird diet data	Arimitsu	1	1	1	1
22120114-C	FY22-FY26	Forage Fish Distribution, Abundance, and Body Condition	Hydroacoustic data	Arimitsu	1	1	1	1
22120114-C	FY22-FY26	Forage Fish Distribution, Abundance, and Body Condition	Water chemistry (CTD & nutrients) data	Arimitsu	1	1	1	1
22120114-C	FY22-FY26	Forage Fish Distribution, Abundance, and Body Condition	Zooplankton data	Arimitsu	1	1	1	1
23220111-R/K	FY24-FY26	Prince William Sound Aerial Juvenile Fish Surveys	Data products are reported through 22120114-C	Pegau	NA	NA	NA	NA
22120114-D	FY22-FY26	Continuous Plankton Recorders	Plankton data	Ostle	1	1	1	0[6]

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22120114-D	FY22-FY26	Continuous Plankton Recorders	Temperature data	Ostle	1	1	1	0[6]
22120114-G	FY22-FY26	Oceanographic Conditions in PWS	Chlorophyll data	Campbell	1	1	1	1
22120114-G	FY22-FY26	Oceanographic Conditions in PWS	CTD data	Campbell	1	1	1	1
22120114-G	FY22-FY26	Oceanographic Conditions in PWS	Zooplankton data	Campbell	0[1]	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Rocky intertidal community data	Iken	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Mussel data	Iken	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Rocky intertidal data	Iken	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Substrate data	Iken	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Seagrass data	Iken	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Oystercatcher diet & nest density data	Coletti	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Invertebrate and algae data (soft sediment)	Coletti	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Marine birds and mammals data	Coletti	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Water quality data	Coletti	1	1	1	1

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Sea otter survey data	Coletti	1	1	0[2]	0[2]
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Sea otter caracass age at death	Coletti	0[2]	0[2]	0[2]	0[2]
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Sea otter foraging observations	Coletti	1	1	1	1
22120114-H	FY22-FY26	Nearshore ecosystems the Gulf of AK	Sea otter scat data (Spraint)	Coletti	1	1	1	1
22120114-I	FY22-FY26	GAK1 Monitoring	CTD data	Danielson	1	1	1	1
22120114-I	FY22-FY26	GAK1 Monitoring	Mooring data	Danielson	0[5]	0[5]	0[5]	0[5]
22120114-L	FY22-FY26	Seward Line Monitoring	Chlorophyll data	Hopcroft	1	1	0[5]	0[5]
22120114-L	FY22-FY26	Seward Line Monitoring	CTD data	Danielson	1	1	1	1
22120114-L	FY22-FY26	Seward Line Monitoring	Nutrient data	Aguilar-Islas	1	1	0[5]	0[5]
22120114-L	FY22-FY26	Seward Line Monitoring	Seabird data (Kuletz)	Kuletz	1	1	0[3]	0[3]
22120114-L	FY22-FY26	Seward Line Monitoring	Zooplankton data	Hopcroft	1	1	0[1]	0[1]
22120114-M	FY22-FY26	PWS Marine Bird Surveys	Summer bird survey data	Kaler	1	0[5]	0	0
22120114-N	FY22-FY23	Long-term Killer Whale Monitoring	Acoustic field recordings	Olsen	1	1	1	1
22120114-N	FY22-FY23	Long-term Killer Whale Monitoring	Photo encounters	Olsen	1	1	1	1
22120114-N	FY22-FY23	Long-term Killer Whale Monitoring	Biopsy data-genetics and contaminants	Olsen	NA	NA	NA	NA
22120114-N	FY22-FY23	Long-term Killer Whale Monitoring	Prey genetic sampling	Olsen	NA	NA	NA	NA

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22120114-O	FY22-FY31	Humpback Whale Predation on Herring	Fluke id catalog	Moran	1	1	1	1
22120114-O	FY22-FY31	Humpback Whale Predation on Herring	Whale lipid data (Energetic/stable isotope data)	Moran	1	1	1	1
22120114-O	FY22-FY31	Humpback Whale Predation on Herring	Whale survey and prey data	Moran	1	1	1	1
22120114-O	FY22-FY31	Humpback Whale Predation on Herring	Porpoise survey data	Moran	1	1	1	1
22120114-O	FY22-FY31	Humpback Whale Predation on Herring	CTD data	Moran	1	1	1	1
22200114-P	FY25, FY30	Lingering Oil Component Project	hydrocarbon database	Lindeberg	NA	NA	NA	NA
23120111-R	FY24-FY26	Forage fish aerial surveys	Forage fish aerial surveys	Pegau	1	1	1	1
23120114-E	FY24-FY26	Fall and winter seabird surveys	Fall and winter seabird surveys	Schaefer	NA	NA	NA	NA

[1] delayed due to processing times for samples (e.g., zooplankton, tissue samples)

[2] delayed due to Federal reporting requirements

[3] other delays that the Data Management Team was made aware of (e.g., staffing/personnel changes, field delays)

[4] no data are expected this year (e.g., funding delays, contracting could not be completed, data destination changed, project not started yet, project discontinued, component of project discontinued)

[5] data and/or metadata have been uploaded, but is undergoing Axiom review before it can be finalized and published

[6] delayed due to Federal funding delays

Continuing NPP Data Submission Inventory as of February 17, 2025. These projects were initiated in prior award period 2017-2021, hence show funding periods prior to 2022.

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22200127	FY20-FY22	Ocean acidification sampling	GWA OA yearly sampling	Jacqueline Ramsay, Jeff Hetrick	1	1	NA	NA
22110853	FY20-FY23	Pigeon guillemot restoration	PIGU Bird Survey	Kaler	1	1	1	1
22110853	FY20-FY23	Pigeon guillemot restoration	BLKI productivity Survey	Kaler	1	1	1	1
22110853	FY20-FY23	Pigeon guillemot restoration	Transect Information start/stop from research vessel (transect header sheets)	Kaler	1	1	1	1
22210128	FY21-FY25	Status and trends of EVOS injured seabirds in the Kenai Peninsula Coast and Kachemak Bay	Kenai Peninsula Component-Annual Bird Surveys	Tuula Hollmen	1	1	1	0[6]
22210128	FY21-FY25	Status and trends of EVOS injured seabirds in the Kenai Peninsula Coast and Kachemak Bay	Kachemak Bay Component-Annual Bird Surveys	Liz Labunski	1	1	1	0[6]

[1] delayed due to processing times for samples (e.g., zooplankton, tissue samples)

[2] delayed due to Federal reporting requirements

[3] other delays that the Data Management Team was made aware of (e.g., staffing/personnel changes, field delays)

[4] no data are expected this year (e.g., funding delays, contracting could not be completed, data destination changed, project not started yet, project discontinued, component of project discontinued)

[5] data and/or metadata have been uploaded, but is undergoing Axiom review before it can be finalized and published

[6] delayed due to Federal funding delays

New NPP Data Submission Inventory as of February 17, 2025.

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220201	FY22-FY31	Chugach Regional Ocean Monitoring Program	Time series environmental data	Maile Branson	1	1	0[6]	0[6]
22220201	FY22-FY31	Chugach Regional Ocean Monitoring Program	Time series chemical seawater analyses	Maile Branson	1	1	1	0[6]
22220201	FY22-FY31	Chugach Regional Ocean Monitoring Program	Phytoplankton ID and species prevalence	Maile Branson	1	1	1	0[6]
22220201	FY22-FY31	Chugach Regional Ocean Monitoring Program	Biotoxin levels	Maile Branson	1	1	1	0[6]
22220300	FY22-FY26	PWS kelp mariculture development for habitat restoration and local economy	Site Monitoring Oceanographic Data	Willow Hetrick-Price	1	1	1	1
22220300	FY22-FY26	PWS kelp mariculture development for habitat restoration and local economy	Water Sample Nutrient Data	Willow Hetrick-Price	1	1	1	1
22220300	FY22-FY26	PWS kelp mariculture development for habitat restoration and local economy	Kelp Growth Measurements	Willow Hetrick-Price	1	1	1	1

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H1a: Extending Bull Kelp Mapping to Spill Zone: Mapped bull kelp layer 30x30m and bed density variation 1984-present (covering oil spill zone)	Aaron Poe	NA	NA	NA	NA
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H1a Synthesis of Other Seaweed Species Mapping: Synthesis GIS Google Earth layer(s) of existing seaweed species	Aaron Poe	NA	NA	1	0[5]
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H2 Synthesizing Mapped Household Subsistence Data: Synthesis GIS layer of DF&G subsistence data	Aaron Poe	NA	NA	0[3]	0[3]
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H1a/H2 Integrating Ethnographic/Historical Ecology: Synthesis of ethnographic interviews (de-identified)	Aaron Poe	NA	NA	NA	NA
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H1a/H2 ADFG Household Surveys: Life History Mapping synthesis	Aaron Poe	NA	NA	NA	NA

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H1b Healthy Land and Sea Planning (HLSP): Synthesis of Healthy Land and Sea Planning discussions	Aaron Poe	P	P	NA	NA
22220301	FY22-FY26	Social, cultural and economic assessment of kelp mariculture opportunities for coastal villages within the EVOS spill zone	H3 Economic Viability Analyses: Outputs from economic experiment and analyses of mariculture activities	Aaron Poe	NA	NA	NA	NA
22220502	FY23-FY25	Clean Water Act assessment of beaches with lingering oil	listing methodology	Terri Lomax	P	P	NA	NA
22220502	FY23-FY25	Clean Water Act assessment of beaches with lingering oil	impairment/attainment GIS layer	Terri Lomax	P	P	NA	NA
22220508	FY22-FY25	Geospatial wetlands and hydrography data across the EVOS region	High-resolution National Wetland Inventory (NWI) database for the entire EVOS region north of Shelikof Strait and Kodiak Watersheds	Sydney Thielke	NA	NA	NA	NA
22220508	FY22-FY25	Geospatial wetlands and hydrography data across the EVOS region	National Hydrography Data (NHD) for the unmapped portion of the Bering Glacier Watershed	Sydney Thielke	NA	NA	NA	NA

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220508	FY22-FY25	Geospatial wetlands and hydrography data across the EVOS region	QL 1 LiDAR data for Copper River Delta	Sydney Thielke	NA	NA	0[6]	0[6]
22220202	FY22-FY26	Continuation and expansion of ocean acidification monitoring	discrete water sample data and inorganic carbon sampling	Hauri	1	1	1	1
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	New Aerial Imagery: Helicopter-based Aerial Ortho Mosaic and Raw Imagery	Steve Colligan	NA	NA	1	0[3]
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Historical Imagery: scanned and geolocated physical prints provided by Chugachmiut	Steve Colligan	NA	NA	NA	NA
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Cadastral: Corrected parcel boundaries	Steve Colligan	NA	NA	0[3]	0[3]
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Geodetic Control: survey data	Steve Colligan	NA	NA	0[3]	0[3]
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Infrastructure: roads, mileage, culverts and bridges GIS data	Steve Colligan	NA	NA	NA	NA
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Community Profile: updates to DNR 2005 profiles	Steve Colligan	NA	NA	NA	NA

EVOS Project #	Years Funded	Project	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Hydrography: Windy Bay Lidar-based fish passage	Steve Colligan	NA	NA	NA	NA
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Field Data: Geolocated photos and videos	Steve Colligan	0[3]	0[3]	0[3]	0[3]
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Elevation: Lidar data	Steve Colligan	NA	NA	0[3]	0[3]
22220507	FY22-FY26	Port Graham Corporation general restoration and habitat protection	Elevation: Lidar derived elevation models - DSM & DTM, contours	Steve Colligan	NA	NA	0[1]	0[1]

[1] delayed due to processing times for samples (e.g., zooplankton, tissue samples)

[2] delayed due to Federal reporting requirements

[3] other delays that the Data Management Team was made aware of (e.g., staffing/personnel changes, field delays)

[4] no data are expected this year (e.g., funding delays, contracting could not be completed, data destination changed, project not started yet, project discontinued, component of project discontinued)

[5] data and/or metadata have been uploaded, but is undergoing Axiom review before it can be finalized and published

[6] delayed due to Federal funding delays

Mar ReCON Project Components Data Submission Inventory as of February 17, 2025. Funding delays in FY22 delayed many of these projects, hence FY23 is the first year most of these new projects were expected to produce and submit data.

EVOS Project #	Years Funded	Component	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220302	FY22-FY26	1	Sensor data for temperature, salinity, dissolved oxygen, PAR, etc.	Eckert	NA	NA	1	1
22220302	FY22-FY26	1	Hydrographic data from CTD casts - temperature & salinity	Eckert	NA	NA	1	1
22220302	FY22-FY27	1	Measure carbonate chemistry throughout a subset of the study and across all study regions.	Kelley	NA	NA	1	1
22220302	FY22-FY28	1	Nutrient sampling	Umanzor	NA	NA	1	1
22220302	FY31-FY35	2A	Zooplankton composition, abundance, and biomass	Campbell	NA	NA	NA	NA
22220302	FY22-FY26	2B	Benthic fish, epibenthic invertebrate, macroinfauna, and seaweed composition, abundance, and biomass at oyster and seaweed farms	Konar	1	0[6]	1	0[6]
22220302	FY22-FY26	2B	Fouling community structure associated with mariculture farm structures	Konar	1	0[6]	1	0[6]
22220302	FY22-FY26	2B	Static physical attributes associated with mariculture farms (substrate, depth, exposure, distance to freshwater)	Konar	1	0[6]	1	0[6]
22220302	FY22-FY26	2C	Pelagic fish abundance, species diversity, and behavior associated with mariculture farms.	Cypher	NA	NA	1	1
22220302	FY22-FY26	2C	Trophic flow estimates between species (a proxy for ecosystem dynamics) in PWS bays.	Cypher	NA	NA	1	1

EVOS Project #	Years Funded	Component	Dataset	Primary PI	2022 Data in RW	2022 Metadata in RW	2023 Data in RW	2023 Metadata in RW
22220302	FY22-FY26	2D	Seabird community response to mariculture sites in PWS	Schaefer	1	1	1	1
22220302	FY22-FY26	2E	Marine mammal interactions with farm gear, including species, location, gear type, photographs	Rehberg	NA	NA	NA	NA
22220302	FY22-FY25	3A	Oyster growth & condition on production arrays	Hollarsmith	NA	NA	NA	NA
22220302	FY22-FY26	3A	Seaweed growth & condition on production arrays	Umanzor	NA	NA	NA	NA
22220302	FY22-FY26	3A	Seaweed contaminants	Huller	NA	NA	NA	NA
22220302	FY22-FY26	3B	Oyster rearing & breeding	Hollarsmith	NA	NA	NA	NA
22220302	FY22-FY26	3C	Sugar kelp responses to various seeding, trimming & parent stocks	Umanzor	1	0[6]	0[6]	0[6]

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