

Data Policy

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1. INTRODUCTION

This Policy is to facilitate access to, and the confident use of, data and information used in and produced by projects and programs funded by the *Exxon Valdez* Oil Spill Trustee Council (EVOSTC or "Trustee Council"). The Policy's objectives are the preservation and availability of project and program information in well-documented, accessible, and understood formats to scientists and the public in a timely manner; and to ensure appropriate citations and acknowledgement of the investigators who collect data, develop models, or who apply models to generate significant new insight.

Since 2012, the Council-funded Data Management program has provided data management services to the Council's long-term research and monitoring programs (<u>Gulf Watch Alaska</u> and <u>Herring Research & Monitoring</u>). These data management services were expanded in 2020 to include all science and technical projects which ensures that data are standardized and consistently maintained, archived, and made publicly available through the <u>Alaska Ocean Observing System</u> and <u>DataOne</u> data portals. The Council's Data Management infrastructure has evolved into an efficient, effective, and well-structured program, which has resulted in less oversight and maintenance for the Council and Council staff. If a proposer chooses to contract elsewhere for data management services, proposals must include a detailed data management plan that describes how the project will comply with the Council's Data Policy.

2. APPLICABILITY

This policy applies to all projects or programs which receive any EVOSTC funding, including investigators and staff members and contractors thereof. Such persons agree to follow this policy as a condition of receiving funding.

This policy has been developed in accordance with known current guidelines and standards for environmental data collection activities. In practice, this policy must comply with Federal laws and the laws of the State of Alaska and be consistent with the policies of sponsoring agencies.

The Trustee Council's Executive Director will be notified of any instances where this policy is not being followed, and which cannot be resolved by the parties directly involved. Details including the nature of non-compliance and corrective actions already taken should be provided in a Non-Compliance report. The Executive Director will review the Non-Compliance report and recommend a course of action to the Trustee Council, which may include notification of parent agencies of principal investigators who have not complied with this policy, withholding of funding until compliance has been achieved, and/or precluding funding for future projects or programs.

3. DATA PRESERVATION

All documents (including written, electronic, photographic, and magnetic) or physical evidence (such as tissue samples) produced or collected as part of any Trustee Council-funded project or program must be preserved, unless written authorization is given by the EVOSTC Executive Director to destroy items no longer necessary for restoration or other purposes. To submit a request to destroy items:

- A. Create an inventory of the items you wish to destroy that contains the following information for each item:
 - i. a description of the item,

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- ii. the date the item was created or obtained by the governments or their contractors and the date of destruction under the applicable government agency retention schedule,
- iii. a description of any analyses of the item, including the location of those analyses, and
- iv. whether the item is unique or is a copy of a still existing original item.
- B. Transmit the inventory to the EVOSTC Executive Director:
 - i. via email at <u>dfg.evos.restoration@alaska.gov</u>,
 - ii. via mail to 4230 University Drive, Suite 220, Anchorage, Alaska 99508-4626, or
 - iii. via fax to 907-276-7178

4. DATA AND METADATA PROCEDURES

- A. Definition of Data For the purposes of this policy, data is defined as quantifiable values that are collected by humans or machines, processed for quality assurance/quality control (QA/QC) by a trained observer, likely to be useful for future scientific analysis, and documented with appropriate metadata.
- B. Data Management Plan (DMP) All proposals must include a DMP that describes how data will be processed, formatted, documented, published, and archived according to the criteria outlined in this Data Policy.
- C. Metadata A metadata ("data about data") record must be created for each dataset. The metadata format must comply with an appropriate, open metadata standard used in the science community. At this time, most EVOS-funded data projects create ISO 19115 metadata records, but EML records are also acceptable. Metadata records may be created using any available method, so long as a robustly descriptive, and schema validated record (specific to each dataset) is produced. A list of popular metadata creation tools and information on creating usefully complete records can be found on the Trustee Council's website <u>here</u>.

5. DATA AND MODEL ARCHIVING

- A. Identifying Datasets for Archiving Principal investigators are required to work with their data management liaison and the Executive Director to identify and permanently archive datasets (data and metadata), and to submit metadata for such datasets to the Trustee Council's data archive. At minimum, the data itself must be archived in the Research Workspace DataONE Member Node. Approval of additional archives may be requested from the Executive Director. Requested archives must meet the criteria outlined in this Data Policy. Currently <u>approved</u> archives include the Research Workspace DataONE Member Node and the AOOS Gulf of Alaska data portal.
- B. Approval of Data Archive In approving a data archive for storage of EVOSTC datasets, the Executive Director will consider if it:
 - i. is an appropriate location for the type of data to be archived,
 - ii. is actively maintained by an agency or organization capable of providing access to datasets for the foreseeable future, and

- iii. provides continuous discoverable and easily accessible public (unrestricted) access to datasets.
- C. Quality Assurance and Control (QA/QC) Before a dataset is shared, an appropriate, standards compliant metadata record must be provided and proper QA/QC procedures must be applied and documented. For suggested best practices for managing scientific data, please see <u>pages</u> provided by Axiom Data Science.
- D. Data Archiving Formats –The final version of the data must be archived in one of the following formats: Microsoft Access, CSV, netCDF, KML, or ESRI Shapefiles. Other formats may be used if approved by the Science Director or Executive Director. For CSV files, descriptive header information must be included.
- E. Model Archiving Formats Principal investigators of projects or programs producing models are also responsible for archiving and publishing those models. Computer models must include the computer source code in a commonly-used computer language (publicly accessible git repository) along with documentation as described above. Documentation which is sufficient to allow use of the model by persons having the knowledge and abilities typical of numerical modelers must be submitted. Model products must include sufficient explanation and links to the model version used to generate those products and results so that persons having knowledge and abilities typical of Trustee Council-funded principal investigators can understand them.
- F. Final Versions of Datasets and Models Archived Prior to Submission of Final Report – Prior to the submission of a project or program final report to the Trustee Council office, principal investigator(s) are responsible for ensuring that final versions of all models and/or datasets (with appropriate metadata) have been archived in the chosen location. After a final report has been approved and published (in accordance with the Trustee Council's <u>Reporting</u> <u>Policy</u>), all archived datasets and models will be made available to the public. A project or program will not be accepted as satisfying the requirements of funding until all data associated with the project or program are submitted with the final report document.

6. DATA SHARING, PUBLICATION AND CITATION

- A. Data is Considered Public Data acquired under Trustee Council funding is considered public information and, as such, will be archived and made available to the public. Copyright to such data is owned by the State and/or Federal agencies sponsoring the project or program.
- B. Statement regarding EVOSTC Funding Following academic courtesy standards, principal investigators must include the following statement with any publicly-distributed or otherwise published datasets or manuscripts, including refereed scientific journals or other public presentations:

"This material is based upon work funded by the *Exxon Valdez* Oil Spill Trustee Council under Project Name/Program No. (enter number). Any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views or positions of the Trustee Council."

- C. Appropriate acknowledgement and citation In accordance with scientific norms, principal investigator(s), along with their technicians and processors, are entitled to the expectation that they will receive appropriate attribution for the intellectual and technical labor contributed to an archived data product.
- D. Data Sharing In the interest of expanding knowledge in the scientific community, principal investigators are encouraged to provide links to archived datasets in approved repositories on their own website and circulate to interested parties. Principal investigators are specifically authorized and encouraged to publish the results of their own research.

7. DATA LIABILITY

Datasets are only as good as the methods and QA/QC procedures used for collection. Users bear responsibility for understanding the content and limitations of any data they plan to use, as well as for their use or misuse of information produced or collected with Trustee Council funding, including the use of any and all datasets, models, model products, reports, research, comparisons, or analyses. The Trustee Council, Trustee agencies, principal investigators, project or program personnel, and their staff do not assume liability for any claims, injuries, or damages in any manner related to the use or misuse of such information.