Data Management Plan

USFWS – Alaska Region, Fisheries and Ecological Services v.3

Initiate a project’s data management plan (DMP) using the template below. The DMP is intended to be a living document that is updated throughout the project lifecycle, as needed. It is not expected that all fields of the DMP can be completed at the start of a project. This DMP should be a partner resource to any existing protocol documents, and it is expected that information that already exists in these other resources may be referenced here.

For projects with data managed under the data management plan of an external collaborator, note the primary external contact person(s) under the Project Personnel section, instructions for locating the external data management plan in the Short-term Storage section, and fill out any sections not covered in the external data management plan. All fields are required unless otherwise indicated. Information that is not yet known can be entered as TBD.

|  |  |
| --- | --- |
| **DMP Creation** | **Date:** 2022-01-13  **Name:** Daniel Rizzolo  **Email:** daniel\_rizzolo@fws.gov |
| **DMP Last Updated** | **Date:** Enter the date the DMP was last updated  **Name:** Enter the name of the person who last updated the DMP  **Email:** Enter the email of the person who last updated the DMP |
| **Data Manager Approval** | **This section is to be filled out by an FES data manager.** |

# **Project Details**

**Project Title**

Provide a clear and direct title here that covers the purpose of the project and provides a good summary of the work to be done. Focus on wording that conveys what the project intends to produce.

|  |
| --- |
| Nest monitoring and banding of breeding Spectacled Eiders on Kigigak Island, Yukon Delta National Wildlife Refuge |

**Project Abstract**

Provide a brief description of the goals and intent for the project. The project summary should describe the problem or question that prompted the need for the project, the scope (geographic and temporal) of the project, and how the project is anticipated to help with decision making or conservation. **Limit 300 words**.

|  |
| --- |
| Evaluating and predicting the effects of environmental change in marine habitats on populations is a priority recovery task for threatened spectacled eiders. Biologists monitored nest success of spectacled eiders and banded breeding adult female spectacled eiders on Kigigak Island for 23 years (1992–2015). These data contributed considerably to our understanding of spectacled eider population dynamics. Through the early 2000s, both the annual abundance and annual survival of spectacled eiders from western Alaska declined in years with extremely high sea ice concentrations on the core wintering area in the Bering Sea. More recently, low sea ice concentration on the core wintering area was also associated with decreased survival. Because years with prolonged periods of low sea ice concentration were sparse in the data set, however, the estimated effect of low sea ice concentration on survival had considerable uncertainty. Given the potential negative effect of low sea ice on spectacled eider survival and the ongoing low sea ice conditions in the Bering Sea, nest monitoring and banding at Kigigak Island was reinitiated in 2019 to clarify the effect of low sea ice by reducing the uncertainty around its estimated effect with additional. The goal of the project is to collect at least 6 additional years of mark-resight banding data and nest monitoring data. This information will be critical for evaluating future conditions in species status assessments for spectacled eiders, used to inform 5-year reviews required under the Endangered Species Act. |

**FWS Cost Center Code**

Please enter the administrative code(s) for the Cost Center that will fund the project.

|  |
| --- |
| FF07CAFB00 |

**Project Identifier Code or Tracking Number**

Provide any unique identifier code(s) for the project, such as a ServCat reference number or Regional Data Repository (RDR) folder name. If no RDR folder exists for this project yet, list the sub-program or Fish and Wildlife Conservation office the project is associated with as well as a 3 to 4 word short title for the project and a data manager will work with you to create an RDR code.

|  |
| --- |
| FES |

**Project Personnel**

Provide a name, email, and short description of role(s) for identified staff who will be involved with managing the data of the project in the table provided below. Must include:

* **Principal Investigator:** person responsible for management of the project and all associated data products, e.g. Project Manager.
* **Data originator**: person generating/collecting data, responsible for data they collect, author, or generate, e.g. Field Crew Leader.
* **Data steward**: person responsible for reviewing data products and metadata for quality and completeness, e.g. PI Colleague.
* **Data custodian**: person responsible for the management of the archived project files, e.g. Data Manager.
* **Data trustee**: person responsible for ensuring that the allocation of resources (e.g. staff, funding) are adequate to allow for the completion of all aspects of data management, e.g. Field Office Supervisor.

Additionally, a primary contact for the project should be stated. Identify any possible external partners/collaborators attached to the project, their contact information, and their role relating to data acquisition or management. Add additional rows by clicking the **[+]** at the end of the last row in the table.

|  |  |  |
| --- | --- | --- |
| **Name and Position** | **Contact** | **Role(s)** |
| Daniel Rizzolo, Biologist | daniel\_rizzolo@fws.gov, 907-385-7550 | Principal Investigator, Data Originator, Point of Contact |
| Sarah Conn, Field Office Supervisor | sarah\_conn@fws.gov | Data Trustee |
| Theresa Wisneskie, Data Manager | theresa\_wisneskie@fws.gov | Data Custodian |
| Neesha Stellrecht, Branch Chief | neesha\_stellrecht@fws.gov | Administrator |
| Bryan Daniels, YDNWR Biologist | bryan\_daniels@fws.gov | Collaborator |
| Katie Christie, ADFG Biologist | katie.christie@alaska.gov | Co-PI |
| Jason Schamber, ADFG Biologist | jason.schamber@alaska.gov | Co-PI |
| Samantha Hamilton, Data Technician | samantha\_hamilton@fws.gov | Data Steward |

**Project Start Date**

2019-05-01

*Optional:* **Project End Date**

2025-12-01

# **Data Sharing, Security, and Preservation**

**Short-term Storage**

Describe where project-related digital and non-digital data will be stored during the implementation of the project. Naming and versioning of working files and folders may be described here. See the [Alaska Region Interim Data Management Guide](https://doi.org/10.7944/P9JF0RT6) for file naming and versioning best practices. If the project’s data is managed under the data management plan of an external collaborator, provide contact instructions for accessing the external data management plan here.

|  |
| --- |
| Files are stored on Daniel Rizzolo’s FWS computer (IFW7FAIR-729384) |

**Short-term Backup and Security**

Describe how digital data will be backed up, including backup locations and schedule, during the implementation of the project. Detail any custom access restrictions that should be applied to project resources during project implementation.

|  |
| --- |
| Files are backed-up to an external hard drive in Daneil Rizzolo’s office, FWS One Drive, and the FFWFO network drive in the ES Share folder (FFWFO\ES Share\spei\_surv\_kig) |

**Long-Term Preservation and Data Repositories**

Standard language is provided below. If this guidance is appropriate to your project, this does not need to be altered, except to add links to the project’s location in a public-facing repository. Unless otherwise specified, all data and products are assumed to be available in the public domain. If there are restrictions on access, note that here and detail restrictions in the Restrictions section, below. Additionally, provide a URL or contact information for any other authoritative data repositories to be used for long-term data storage and public or local access (e.g., ServCat, ScienceBase, etc.).

|  |
| --- |
| Preservation of this project and its products will follow the guidance of the [Alaska Region Interim Data Management Guide](https://doi.org/10.7944/P9JF0RT6) by the creation of an archive folder in the Regional Data Repository with the assistance of the FES Data Manager. All data products, with associated metadata, are available for sharing at the time those products are submitted to the Regional Data Repository. Data will be submitted to a board-approved repository. |

**Records Schedule and Disposition**

State the [disposition schedules](https://www.fws.gov/policy/283fw2.html) that apply to your project and data products. These schedules describe how long records must be retained, if/when they must be transferred to the Federal Records Center or NARA, and if/when they may be disposed of. Your data manager, data custodian, or [Regional Records Manager](mailto:kyle_cahill@fws.gov) can assist you in determining the correct records schedule and disposition for your project records and data products.

|  |
| --- |
| Annual data files and the project annual report will be added to the repository with metadata before the start of the field season in the subsequent year. |

**Metadata Standards**

Standard language is provided below. If this guidance is appropriate to your project, this does not need to be altered. If metadata standards beyond those stated below will be used, identify the metadata standard(s) that will be used to describe data products.

|  |
| --- |
| The project and all data products will have corresponding metadata in the mdJSON standard. Metadata will be written in [mdEditor](https://www.mdeditor.org/) and will be reviewed and maintained by the Data Custodian or Data Steward. |

*Optional:* **Restrictions**

Describe any use restrictions placed on data products resulting from this project and provide justification. Justification for restrictions on access should cite specific FOIA and CUI conditions that allow for restricted access and explicitly identify who does/does not have access and when/under what conditions restrictions are removed. A redacted public version must also be provided.

|  |
| --- |
| Click here to enter access restrictions. |

# Data Product Details and Management

## Digital Data

Use the following template to describe the management each digital data product used during the project, including pre-existing data products that were used in analysis but not produced during the project. These may include, but are not limited to, spreadsheets, databases, statistical models, maps, or photo/video collections. Sections where information does not yet exist can be set to “TBD” until they can be filled out. Add additional tables by clicking the **[+]** at the end of the last row in the table.

|  |  |
| --- | --- |
| If a project contains multiple products of this type, consider numbering them here | Click to enter product title |
| File Name and Location: | rizzolo\_spei\_kigigak\_fes\_dmp\_20220113.docx |
| Type of Resource: | Data Management Plan (need to convert to PDF after review) |
| Resource Requirements: | 76 kb |
| Data Originator(s): | Daniel Rizzolo |
| Metadata Author(s): | Daniel Rizzolo |
| Quality Assurance/ Quality Control: | NA |
| Submission Schedule: | Updated upon collection of data annually with submission for year x by May of year x+1 |
| Supplementary Materials: | List any additional data products needed to understand this product (e.g. Entity-Relationship Diagrams for databases, file metadata for photos and videos, sources/citation for pre-existing datasets this product was derived from, etc.) and their locations. |
|  |  |

|  |  |
| --- | --- |
| If a project contains multiple products of this type, consider numbering them here | Click to enter product title |
| File Name and Location: | Provide the file name and location (e.g. file path on local computer, SharePoint link, DOI) of this resource. File versioning conventions may be described here if needed. If the data product was not produced during the project, identify its source and provide a citation and full links or DOI, if available. |
| Type of Resource: | Describe the type of resource this is (e.g. tabular dataset, map, model, etc.) as well as its file type (e.g. csv, tiff, shapefile, geoJSON, etc.).  Note: Final data products should be archived in open formats and comply with Federal standards. See the [Recommended Formats Statement from the Library of Congress](https://www.loc.gov/preservation/resources/rfs/index.html) for recommended file formats. |
| Resource Requirements: | Identify resources needed to maintain, store, and access this data product, such as hardware, software, staff with specialized skills, or financial resources. Provide a rough estimate of the amount of storage spaced needed to house the data (i.e. MB, GB, TB, PB). |
| Data Originator(s): | Identify the person(s) responsible for collecting, authoring, or generating the data product. |
| Metadata Author(s): | Identify the person(s) responsible for reviewing and maintaining metadata. |
| Quality Assurance/ Quality Control: | Describe procedures or methods used to ensure quality of data. For existing protocols or methodologies, citations/links to technical reports, peer-reviewed publications, agency guidance, etc. may be used in lieu of a description. |
| Submission Schedule: | Identify how often metadata will be updated and data with its corresponding metadata will be submitted to the Regional Data Repository (e.g. Annually, Final). |
| Supplementary Materials: | List any additional data products needed to understand this product (e.g. Entity-Relationship Diagrams for databases, file metadata for photos and videos, sources/citation for pre-existing datasets this product was derived from, etc.) and their locations. |
|  |  |

|  |  |
| --- | --- |
| If a project contains multiple products of this type, consider numbering them here | Click to enter product title |
| File Name and Location: | Provide the file name and location (e.g. file path on local computer, SharePoint link, DOI) of this resource. File versioning conventions may be described here if needed. If the data product was not produced during the project, identify its source and provide a citation and full links or DOI, if available. |
| Type of Resource: | Describe the type of resource this is (e.g. tabular dataset, map, model, etc.) as well as its file type (e.g. csv, tiff, shapefile, geoJSON, etc.).  Note: Final data products should be archived in open formats and comply with Federal standards. See the [Recommended Formats Statement from the Library of Congress](https://www.loc.gov/preservation/resources/rfs/index.html) for recommended file formats. |
| Resource Requirements: | Identify resources needed to maintain, store, and access this data product, such as hardware, software, staff with specialized skills, or financial resources. Provide a rough estimate of the amount of storage spaced needed to house the data (i.e. MB, GB, TB, PB). |
| Data Originator(s): | Identify the person(s) responsible for collecting, authoring, or generating the data product. |
| Metadata Author(s): | Identify the person(s) responsible for reviewing and maintaining metadata. |
| Quality Assurance/ Quality Control: | Describe procedures or methods used to ensure quality of data. For existing protocols or methodologies, citations/links to technical reports, peer-reviewed publications, agency guidance, etc. may be used in lieu of a description. |
| Submission Schedule: | Identify how often metadata will be updated and data with its corresponding metadata will be submitted to the Regional Data Repository (e.g. Annually, Final). |
| Supplementary Materials: | List any additional data products needed to understand this product (e.g. Entity-Relationship Diagrams for databases, file metadata for photos and videos, sources/citation for pre-existing datasets this product was derived from, etc.) and their locations. |
|  |  |

|  |  |
| --- | --- |
| If a project contains multiple products of this type, consider numbering them here | Click to enter product title |
| File Name and Location: | Provide the file name and location (e.g. file path on local computer, SharePoint link, DOI) of this resource. File versioning conventions may be described here if needed. If the data product was not produced during the project, identify its source and provide a citation and full links or DOI, if available. |
| Type of Resource: | Describe the type of resource this is (e.g. tabular dataset, map, model, etc.) as well as its file type (e.g. csv, tiff, shapefile, geoJSON, etc.).  Note: Final data products should be archived in open formats and comply with Federal standards. See the [Recommended Formats Statement from the Library of Congress](https://www.loc.gov/preservation/resources/rfs/index.html) for recommended file formats. |
| Resource Requirements: | Identify resources needed to maintain, store, and access this data product, such as hardware, software, staff with specialized skills, or financial resources. Provide a rough estimate of the amount of storage spaced needed to house the data (i.e. MB, GB, TB, PB). |
| Data Originator(s): | Identify the person(s) responsible for collecting, authoring, or generating the data product. |
| Metadata Author(s): | Identify the person(s) responsible for reviewing and maintaining metadata. |
| Quality Assurance/ Quality Control: | Describe procedures or methods used to ensure quality of data. For existing protocols or methodologies, citations/links to technical reports, peer-reviewed publications, agency guidance, etc. may be used in lieu of a description. |
| Submission Schedule: | Identify how often metadata will be updated and data with its corresponding metadata will be submitted to the Regional Data Repository (e.g. Annually, Final). |
| Supplementary Materials: | List any additional data products needed to understand this product (e.g. Entity-Relationship Diagrams for databases, file metadata for photos and videos, sources/citation for pre-existing datasets this product was derived from, etc.) and their locations. |
|  |  |

## Physical Samples

The following template can be used to describe the management of physical samples collected or analyzed during this project, if needed. Sections where information does not yet exist can be set to “TBD” until they can be filled out. Add additional tables by clicking the **[+]** at the end of the last row in the table.

|  |  |
| --- | --- |
| If a project contains multiple products of this type, consider numbering them here | Enter sample collection name |
| **Description:** | Describe the sample collection and its purpose. Include a description of any data products expected to be produced as a result of sample analysis. |
| **Labeling Standards:** | Describe how samples will be labeled for identification. |
| **QA/QC Procedures:** | Describe procedures or methods used to collect, compile, and ensure quality of samples. For existing protocols or methodologies, citations/links to technical reports, peer-reviewed publications, agency guidance, etc. may be used in lieu of a description. Additionally, describe sample processing steps or provide a scientific workflow that will be used to process the data, citing existing protocols if necessary. |
| **Storage Location and Conditions:** | Provide a location where samples will be stored during the project and describe any conditions under which samples need to be stored. |
| **Chain of Custody:** | Describe the chain of custody, control, transfer, analysis, and disposition of samples during the project. |
| **Fate After Analysis:** | Describe any plans for long-term storage or disposal of samples after analysis or project conclusion. |
| **Data Products Derived:** | Name any other data product that are produced as a result of analysis of these samples. |
|  |  |