Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

GL_St_Lawrence_River_2021 ESI FISH Polygons, Points

1.2. Summary description of the data:

These feature classes reside within the BIOLOGY Feature Data Set of the St Lawrence River - 2021 ESI Geodatabase. It contains vector polygons and points representing FISH data for the Great Lakes St Lawrence River.

The study area includes the St. Lawrence River from the headwaters of Lake Ontario, northeast to the western portion of L'Ile-Saint-Regis Island (CA). These data sets contain sensitive biological resource data for freshwater and anadromous fish species in the St. Lawrence River. Vector polygons in this data set represent fish distribution, concentration areas, and spawning areas. Vector points in this data set represent fish spawning and nursery areas.

Species-specific abundance, seasonality, status, life history, and source information are stored in associated data tables (described in Entity Attribute Overview below) designed to be used in conjunction with this spatial data layer. This data set is a portion of the ESI data for the Great Lakes St. Lawrence River.

As a whole, the ESI data characterize the marine and coastal environments and wildlife by their sensitivity to spilled oil, and include information for three main components: shoreline habitats, sensitive biological resources, and human-use resources.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2004 to 2021

1.5. Actual or planned geographic coverage of the data:

W: -76.625, E: -74.625, N: 45.125, S: 44
Bounding box for the Great Lakes St. Lawrence River study region.

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Map (digital)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
ESI Program Manager

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
orr.esi@noaa.gov

2.5. Phone number:

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:
ESI Program Manager

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

- 2021-07-01 00:00:00 - Four main sources of data were used to depict fish distribution and seasonality for these data layers: 1) personal interviews with resource experts from the New York State Department of Environmental Conservation (NYSDEC), U.S. Fish and Wildlife Service (USFWS), and the State University of New York College of Environmental Science and Forestry (SUNY ESF); 2) hardcopy maps from NYSDEC and New York Power Authority (NYPA); 3) vector digital data from New York Natural Heritage Program (NY NHP) and New York State Department of State; and 4) vector and tabular digital data from Great Lakes Aquatic Habitat Framework (GLAHF) and SUNY ESF. Fish species depicted in this atlas include species of conservation interest, or species of commercial, recreational, or ecological importance. Fish polygons and spawning points were created based on digital data, publications, and expert opinion provided by resource experts at NYSDEC and USFWS.
- 2021-07-01 00:00:00 - General distributions – Fish general distributions were mapped using expert knowledge collected during workshops. Species included were determined by the experts in the study area. The main stem of the St. Lawrence River was divided into three segments for fish general distributions: Thousand Islands to Brockville, Brockville to Lake St. Lawrence, and Lake St. Lawrence. These divisions are often used by local resource managers as well. Concentration areas and tributaries – Concentrations areas of various species were mapped using expert knowledge collected in workshops and from the New York Department of State Significant Coastal Fish and Wildlife Habitats dataset. Experts also provided species lists and concentration areas present in the tributaries of the St. Lawrence River.
- 2021-07-01 00:00:00 - Spawning locations – All fish that spawn in the study area were mapped with spawning months included in the seasonalities for all locations in the study area, per expert recommendation. Fish spawning can occur throughout the system, and different species utilize different habitats for spawning. The user should refer to the table in the atlas introduction that shows the spawning habitat(s) for each mapped species. Specific spawning locations were not available for many of the mapped species, so use of this table in conjunction with the spatial data informs the user of the areas used for spawning by each species. Spawning months in this atlas include months when any sensitive reproductive life history stage is present (spawning, eggs, and larvae). Point locations of spawning and nursery sites for muskellunge, northern pike, and smallmouth bass were provided by John

Farrell (SUNY ESF). Additional spawning point locations for burbot, cisco, lake trout, lake whitefish, smallmouth bass, walleye, and yellow perch were provided by Great Lakes Aquatic Habitat Framework (GLAHF). Spawning months in this atlas include months when any sensitive reproductive life history stage is present (spawning, eggs, and larvae).
- 2021-07-01 00:00:00 - Depending on the type of source data, three general approaches are used for compiling the data layer: 1) information gathered during initial interviews and from hardcopy sources are compiled onto U.S. Geological Survey 1:40,000 topographic quadrangles and digitized; 2) hardcopy maps are digitized at their source scale; 3) digital data layers are evaluated and used "as is" or integrated with the hardcopy data sources. The ESI, biology, and human-use data are compiled into the standard ESI digital data format. A second set of interviews with participating resource experts are conducted to review the compiled data. If necessary, edits to the FISH & FISHPT data layers are made based on the recommendations of the resource experts, and final hardcopy maps and digital data are created.

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:
- 1.7. Data collection method(s)
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive

facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://www.fisheries.noaa.gov/inport/item/64956

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access
NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:
Office of Response and Restoration (ORR)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:
https://response.restoration.noaa.gov/esi_download

7.3. Data access methods or services offered:
Data can be accessed by downloading the zipped ArcGIS geodatabase from the

Download URL (see Distribution Information). Questions can be directed to the ESI Program Manager (Point Of Contact).

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Office of Response and Restoration - Seattle, WA

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.