

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:

Delaware Bay, Delaware Benthic Grabs 2007

### 1.2. Summary description of the data:

The Coastal Program of Delaware's Division of Soil and Water conservation (DNREC), the University of Delaware, Partnership for the Delaware Estuary, and the New Jersey Department of Environmental Protection have partnered and are carrying out a bottom and sub-bottom imaging project to identify and map the benthic habitat and sub-bottom sediments of Delaware Bay and River. This project was initiated to better understand the distribution of bottom sediment types, habitat biodiversity, and most importantly, human's impact on the bay bottom and its living resources. The project integrates the use of three types of acoustical systems: Roxann Seabed classification system, chirp sub-bottom profiling, and multi-beam bathymetric mapping. Verification of the acoustic data with bottom and sub-bottom sediments is performed through the collection of bra banc core samples and underwater video images.

Original contact information:

Contact Name: Bartholomew Wilson

Contact Org: DNREC Delaware Coastal Programs

Phone: 302-739-9283

### 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 2007

### 1.5. Actual or planned geographic coverage of the data:

W: -75.4567, E: -75.247593, N: 39.351757, S: 38.890727

### 1.6. Type(s) of data:

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

**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:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.4. E-mail address:**

coastal.info@noaa.gov

**2.5. Phone number:**

(843) 740-1202

**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:****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:

- 2008-01-01 00:00:00 - In the entire survey area in the Delaware River and Bay, over 600 sediment grab samples were collected for the bottom sediment verification and calibration of the Roxann sediment box plot. Samples were collected using a Petit Ponar, which has a sample opening of 6 inches x 6 inches, with a total sampling area of 36 in<sup>2</sup>. The petite ponar is a spring loaded sampler which pivots on an axis and when it encounters the bottom the retrieval rope is pulled and the ponar swings shut. The ponar will retrieve 2 to 6 inches, in depth, of sediments (depending on sediment type, harder and coarse sediments will constrict the ponar's penetration into the bottom). The retrieved sediment samples are then placed in a sampling bin and qualitatively described, noting the dominant sediment types, color, and sediment grain properties (sorting, grain maturity, and grain shape). Interesting features such as organic content (depending on sediment color), shell content and type, and anthropogenic debris are also recorded. Any organisms present are documented and these grab samples are then analyzed for their percentage abundances of sand, silt, and clay to determine sediment type. The sediment types are then correlated with their associated Roxann roughness and hardness clusters. Thus, the Roxann clusters can be used to develop a classification scheme for the sea floor. The box plot scheme used to classify the Roxann data for the bay and river areas are the current Delaware Bay benthic mapping project box plot which was constructed and verified by 540 grab samples collected during the 2004 thru 2008 field seasons. Sediment grab samples are collected from each ~ 5 sq. nautical miles (nm) field area (after the surveying has been completed) to verify any localized or regional differences that might cause variations in the clustering of the sediment classification. The Roxann acoustic data was collected in a gridded trackline configuration, with tracklines spacing of 100 meters parallel to the shoreline and 200 meters perpendicular to the shoreline. This project is an extension of the work currently being performed in Delaware waters by DNREC's Delaware Coastal Program's Delaware Bay Benthic Mapping Project.

**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:

- 1.6. Type(s) of data
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 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
- 7.3. Data access methods or services offered
- 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/47866>

### 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](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:**

NOAA Office for Coastal Management (NOAA/OCM)

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

**7.2.2. URL of data access service, if known:**

[ftp://ftp.coast.noaa.gov/pub/benthic/Grab\\_Sample\\_Data/DE\\_DelawareBay\\_benthos.zip](ftp://ftp.coast.noaa.gov/pub/benthic/Grab_Sample_Data/DE_DelawareBay_benthos.zip)

**7.3. Data access methods or services offered:**

**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 for Coastal Management - Charleston, SC

**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.*