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:

2024 Great Bay NERR UAS Lidar: New Hampshire Salt Marshes

1.2. Summary description of the data:

Original Data Collection:

Lidar was captured over a two-day period (05/21-05/22/2024) using a Riegl VUX-1 UAV sensor at an Above Ground Level (AGL) altitude of 115 m, and with a minimum 50% sidelap. The lidar data were collected under leaf-on conditions.

In addition to the lidar point data, bare earth Digital Elevation Models (DEMs) at a 1 ft grid spacing, created from the lidar point data, are also available from the NOAA Digital Coast Data Access Viewer (DAV). A link to the bare earth DEM data is provided in the URL section of this metadata record.

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:

2024-05-21 to 2024-05-22

1.5. Actual or planned geographic coverage of the data:

W: -70.734, E: -70.719, N: 43.04, S: 43.03

1.6. Type(s) of data:

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

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

The NOAA Office for Coastal Management (OCM) received the UAS lidar data from the Great Bay NERR. NOAA OCM processed the data to make it available for custom downloads from the NOAA Digital Coast Data Access Viewer and for bulk downloads from AWS S3.

Process Steps:

- 2024-05-21 00:00:00 - Lidar was captured over a two-day period (05/21-05/22/2024) using a Riegl VUX-1 UAV sensor at an Above Ground Level (AGL) altitude of 115 m, and with a minimum 50% sidelap. On each day, data acquisition occurred within plus or minus 1 hour of predicted low tides. Ground control was provided using a total of ten (10) Propeller Aeropoints distributed evenly across the site each day. Each Aeropoint had a minimum occupation time of 2 hours, and GCPs and checkpoints acquired have a RMSEz of 1.22 cm. For each day, 5 points were used as ground control points (GCPs) and 5 were withheld in processing for independent accuracy checkpoints.
- Inertial processing was performed in NovAtel Inertial Explorer Xpress v9.0. Point cloud creation was conducted in Phoenix Lidar SpatialExplorer v7.0.1. The lidar was then processed through the Terrasolid Spatix v.024.002 software modules TerraScan and TerraMatch UAV for alignment, strip adjustment, and .laz output. Blue Marble GlobalMapper v23.1 was used to classify the .laz into the requested classes using automated and manual workflows. These data were classified as follows: Class 1 = Unclassified Class 2 = Ground Class 7 = Low Noise Finally a 1-ft Digital Elevation Model (DEM) was created in Blue Marble GlobalMapper v23.1 using a minimum value binning (bin size = 6) grid method, and output as a 32-bit floating-point GeoTIFF formatted raster. No breaklines or hydroflattening processes were developed or applied to the DEM.
- 2024-09-17 00:00:00 - The NOAA Office for Coastal Management (OCM) received the UAS lidar data from the Great Bay NERR. The data were in New Hampshire State Plane NAD83(2011), US survey feet coordinates and in NAVD88 (Geoid18) elevations in feet. The data were classified as: 1 - Unclassified, 2 - Ground, 7 - Low Noise. OCM processed all classifications of points to the Digital Coast Data Access Viewer (DAV). Classes available on the DAV are: 1, 2, 7. OCM performed the following processing on the data for Digital Coast storage and provisioning purposes: 1. An internal OCM script was run to check the number of points by classification and by flight ID and the gps and intensity ranges. 2. Internal OCM scripts were run on the laz files to: a. Convert the files from NH State Plane NAD83(2011), US survey feet coordinates to geographic coordinates b. Convert the files from NAVD88 (Geoid18) elevations to ellipsoid (NAD83 2011) elevations c. Convert the files from elevations in feet to meters d. Assign the geokeys, to sort the data by gps time and zip the data to database and to AWS S3

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)
- 3.1. Responsible Party for Data Management
- 5.2. Quality control procedures employed
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.4. Approximate delay between data collection and dissemination
- 8.3. Approximate delay between data collection and submission to an archive facility

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/73520

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?

Yes

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:
https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=10175/details/10175
https://noaa-nos-coastal-lidar-pds.s3.amazonaws.com/laz/geoid18/10175/index.html

7.3. Data access methods or services offered:
Data is available online for bulk and custom downloads.

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)
NCEI_NC

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

Data is backed up to cloud storage.

9. Additional Line Office or Staff Office Questions

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