

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:

2019 NOAA NGS Topobathy Lidar DEM: Finger Lakes, NY

1.2. Summary description of the data:

NOAA Finger Lakes Topobathymetric lidar project data were collected by National Oceanic and Atmospheric Administration (NOAA) using a Riegl VQ-880-G sensor system. The NOAA Finger Lakes Topobathymetric project lidar acquisition was flown between 20190913 and 20191109 in 23 missions. The NOAA Finger Lakes topobathymetric lidar project dataset includes topobathymetric data in a LAS format 1.4, point data record format 6, with the following classifications in accordance with project specifications and the American Society for Photogrammetry and Remote Sensing (ASPRS) classification standards:

1 - unclassified

2 - ground

7 Withheld -low noise

18 Withheld - high noise

40 - bathymetric bottom or submerged topography

41 - water surface

43 - submerged feature

45 - water column

64 - Submerged Aquatic Vegetation (SAV)

65 - overlap bathymetric bottom - temporally different from a separate lift

1 Withheld - edge clip

This dataset also includes lidar intensity values, number of returns, return number, time, and scan angle. The full NOAA Finger Lakes Topobathymetric Lidar project boundary extent covers 301,150 acres (~1,219 sqKm). LAS files were compiled in 500 m x

500 m tiles. The final classified lidar data were then transformed from ellipsoid (GRS80) to geoidal height (Geoid18) and used to create topobathymetric DEMs in GeoTIFF format with 1m pixel resolution. This project dataset represents an area covering 141 - 5000 m x 5000 m boundary-clipped DEM tiles

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:

2019-09-13 to 2019-11-19

1.5. Actual or planned geographic coverage of the data:

W: -77.06825, E: -73.071993, N: 45.031757, S: 42.334934

Bounding box is approximate. Data covers Finger Lakes.

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):

Process Steps:

- 2023-01-26 00:00:00 - Data for the NOAA Finger Lakes topobathymetric lidar project was acquired by NOAA using a Riegl VQ-880-G topobathymetric lidar system. All derived LAS data is referenced to: Horizontal Datum-NAD83(2011) epoch: 2010.00 Projection-UTM Zone 18N Horizontal Units-meters Vertical Datum-GRS80 Ellipsoid Vertical Units-meters This topobathymetric lidar dataset encompasses 6, 179 - 500m x 500m tiles in New York and Vermont. After acquisition, NOAA performed the lidar extraction, calibration, and refraction for the NOAA Finger Lakes topobathymetric lidar data.
- NV5 was then contracted to perform post automated classification in addition to manual editing to review all classification and improve the final topobathymetric surface. NV5's LasMonkey was used to update LAS header information, including all projection and coordinate reference system information. The final lidar data are in LAS format 1.4 and point data record format 6. The final classification scheme is as follows: 1 - unclassified 2 - ground 7 Withheld -low noise 18 Withheld - high noise 40 - bathymetric bottom or submerged topography 41 - water surface 43 - submerged feature 45 - water column 64 - Submerged Aquatic Vegetation (SAV) 65 - overlap bathy bottom - temporally different from a separate lift 1 Withheld - edge clip
- 2023-01-26 00:00:00 - NV5 transformed the final lidar data from ellipsoid heights to orthometric heights referenced to NAVD88, Geoid 18 to create the final

topobathymetric void clipped DEMs. The topobathymetric bare earth DEMs were output at 1 meter resolution in GeoTIFF format into 141 - 5000 m x 5000 m tiles. The Finger Lakes topobathymetric lidar project rasters are clipped to the extent of the project boundary and named according to project specifications. A bathymetric void shapefile was created to indicate areas where there was a lack of bathymetric returns. This shape was created by triangulating bathymetric bottom points with an edge length maximum of 4.56m to identify all areas greater than 9 square meters without bathymetric returns. This shapefile was used to clip and exclude interpolated elevation data from these areas in the bathymetric void clipped topobathymetric bare earth model.

- The NOAA Office for Coastal Management (OCM) received files in cloud optimized geotiff format (COG). These were indexed and processed to the Digital Coast.

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/69816>

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=9827>

https://noaa-nos-coastal-lidar-pds.s3.us-east-1.amazonaws.com/dem/NGS_FingerLakes_NY_DEM_2015

7.3. Data access methods or services offered:

Data is available online for bulk or 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_CO

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 tape and 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.