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:

2023 USGS Lidar DEM: MN River West, MN

1.2. Summary description of the data:

Geographic Extent: Approximately 11,485 square miles in southwest Minnesota.

MN_RiverWest_1 (Work Unit 300408) - covering approximately 4151 square miles

MN_RiverWest_2 (Work Unit 300409) - covering approximately 3170 square miles

MN_RiverWest_3 (Work Unit 300410) - covering approximately 4164 square miles

Dataset Description of Original Data: A half-meter (0.5m) cell size Digital Elevation Model (DEM) raster was created from the ground classified lidar points plus the breaklines. The files are delivered in tile format (1000m by 1000m), the rasters are delivered in 32-bit floating point GeoTIFF format (.tif) and adhere to USGS-NGP Lidar Base Specification 2022, rev. A.

This metadata record supports the data entry in the NOAA Digital Coast Data Access Viewer (DAV). For this data set, the DAV is leveraging the USGS GeoTiff files hosted by USGS on Amazon Web Services.

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:

2023-05-04 to 2023-06-20, 2023-05-15 to 2023-06-20, 2023-05-25 to 2023-06-20

1.5. Actual or planned geographic coverage of the data:

W: -96.5, E: -94.45, N: 44.93, S: 44.19
MN_RiverWest_1 (WU 300408)

W: -96.16, E: -94.74, N: 45.44, S: 44.85
MN_RiverWest_2 (WU 300409)

W: -96.87, E: -95.11, N: 45.79, S: 45.4
MN_RiverWest_3 (WU 300410)

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) ingested references to the USGS GeoTiff files that are hosted on Amazon Web Services (AWS), into the Digital Coast Data Access Viewer (DAV). The DAV accesses the raster data as it resides on AWS .

Process Steps:

- 2023-11-28 00:00:00 - Lidar data was collected using Optech Galaxy T2000 sensor. The raw data was verified in MARS software for complete coverage of the project area, and boresighted to align the flightlines. Raw data files were parsed into manageable client-specific tiles. These tiles were then processed through automated filtering that separates the data into different classification groups: unclassified points, ground points, low noise, water, bridge decks, high noise and ignore ground. The data was next taken into MARS to reclassify the erroneous points that may remain in the lidar point cloud after auto filter. Eight points per square meter (QL1).
- 2023-11-28 00:00:00 - MN_RiverWest_1 LiDAR swath data was measured to have an aggregate of 0.198 meter nominal pulse spacing and 25.525 pulses per meter. The method used was counting first return points within the each swath then dividing by the area of the extent of the corresponding swath to get density. NPS was mathematically derived from this density number. This was performed on each swath then averaged to generate the two numbers above. This USGS method does not consider swath sidelap in these calculations. MN_RiverWest_2 LiDAR swath data was measured to have an aggregate of 0.183 meter nominal pulse spacing and 30.006 pulses per meter. The method used was counting first return points within the each swath then dividing by the area of the extent of the corresponding swath to get density. NPS was mathematically derived from this density number. This was performed on each swath then averaged to generate the two numbers above. This USGS method does not consider swath sidelap in these calculations. MN_RiverWest_3 LiDAR swath data was measured to have an aggregate of 0.205 meter nominal pulse spacing and 23.796 pulses per meter. The method used was counting first return points within the each swath then dividing by the area of the extent of the corresponding swath to get density. NPS was mathematically derived from this density number. This was performed on each swath then averaged to generate the two numbers above. This USGS method does not consider swath sidelap in these calculations.

- Using MARS software a half-meter (0.5m) 32-bit floating point DEM raster in GeoTIFF format (.tif) were created using the ground classified lidar points with the hydro-flattened breaklines. The files are delivered in 1000m by 1000m tiles.
- 2024-09-04 00:00:00 - The NOAA Office for Coastal Management (OCM) created references to the USGS GeoTiff files that were ingested into the NOAA Digital Coast Data Access Viewer (DAV). No changes were made to the data. The DAV will access the raster data as it resides on Amazon Web Services (AWS). This is the location of the GeoTiffs that are being accessed: https://prd-tnm.s3.amazonaws.com/index.html?prefix=StagedProducts/Elevation/OPR/Projects/MN_RiverWest_B23/

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/73578

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=10180/details/10180
https://prd-tnm.s3.amazonaws.com/index.html?prefix=StagedProducts/Elevation/OPR/Projects/MN_R

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.