

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:

NOAA Office for Coastal Management Coastal Inundation Digital Elevation Model: Guam Weather Forecast Office (GUM WFO) - Saipan, Commonwealth of Northern Mariana Islands (CNMI)

1.2. Summary description of the data:

These data were created as part of the National Oceanic and Atmospheric Administration Office for Coastal Management's efforts to create an online mapping viewer called the Sea Level Rise and Coastal Flooding Impacts Viewer. It depicts potential sea level rise and its associated impacts on the nation's coastal areas. The purpose of the mapping viewer is to provide coastal managers and scientists with a preliminary look at sea level rise (slr) and coastal flooding impacts. The viewer is a screening-level tool that uses nationally consistent data sets and analyses. Data and maps provided can be used at several scales to help gauge trends and prioritize actions for different scenarios. The Sea Level Rise and Coastal Flooding Impacts Viewer may be accessed at: <http://www.coast.noaa.gov/slr>

This digital elevation model (DEM) is part of a series of DEMs produced for the National Oceanic and Atmospheric Administration Office for Coastal Management's Sea Level Rise and Coastal Flooding Impacts Viewer described above. The DEM created for this project was developed using the NOAA National Weather Service's Weather Forecast Office (WFO) boundaries. This DEM falls in the Guam (GUM) WFO and shows the elevation data for the island of Saipan, in the Commonwealth of Northern Mariana Islands (CNMI). This DEM includes the best available lidar data known to exist at the time of DEM creation that met project specifications, for the island of Saipan.

This DEM is derived from 2007 United States Army Corps of Engineers (USACE) lidar. Hydrographic breaklines were delineated using lidar intensity imagery generated from the lidar. The final DEM is hydro flattened such that water elevations are less than or equal to 0 meters.

The DEM is referenced vertically to the Northern Marianas Vertical Datum of 2003 (NMVD03) with vertical units of meters and horizontally to the North American Datum of 1983 (NAD83). The resolution of the DEM is approximately 3 meters.

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:

2007-05-06 to 2007-05-09

1.5. Actual or planned geographic coverage of the data:

W: 145.687121, E: 145.832956, N: 15.292437, S: 15.089288

1.6. Type(s) of data:

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

Raster

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:

- 2012-01-01 00:00:00 - GeoCue software was used to develop lidar intensity imagery from the lidar. The raster resolution was 1 ft or 0.3 m. (Citation: 2007 USACE JALBTCX Topobathy Lidar: Saipan, CNMI)
- 2012-01-01 00:00:00 - Lidar intensity images were viewed in 2-D in ArcMap. Hydrographic features were collected as 2D breaklines.
- 2012-01-01 00:00:00 - Class 2, ground lidar points are exported from the LAS files into an Arc Geodatabase (GDB) in multipoint format. Hydro breaklines are assigned an elevation of -0.5 meters and loaded into an Arc GDB. An ESRI Terrain is generated from these inputs.
- 2012-01-01 00:00:00 - The ESRI Terrain is converted to a DEM in Erdas image file format with a cell size of 3 meters. The DEM is reviewed in Global Mapper for incorrect elevations and artifacts that are introduced from source inputs or during the raster creation process. Corrections are applied to the DEMs and reprocessed for review.
- 2012-01-01 00:00:00 - All DEMs are loaded into Global Mapper for the last review. During this last review, an analyst checks to ensure full, complete coverage, no issues along DEM boundaries, DEMs seamlessly edge-match, and that there are no remaining processing artifacts in the dataset. Once approved, DEMs are re-projected to the NAD83 geographic coordinate system.
- Data were converted to cloud optimized geotiffs and the appropriate georeferencing tags were applied. Data were ingested into the Digital Coast Data Access Viewer.

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
- 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/59112>

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:

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=9065>

https://coast.noaa.gov/htdata/raster2/elevation/SLR_viewer_DEM_CNMI_9065

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)

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.