

*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:**

2008 Florida Division of Emergency Management Lidar: Middle Suwannee River

### **1.2. Summary description of the data:**

LiDAR Survey for the Suwannee River Water Management District (SRWMD), Florida. The LiDAR aerial acquisition was conducted in January of 2008, and the breaklines and contours were subsequently generated by the Program and Data Solutions (PDS) team. The PDS team is under contract 07-HS-34-14-00-22-469 with the Florida Division of Emergency Management (FDEM) and offered LiDAR and derived products to add-on clients, including the SRWMD, at the same volume-discount unit rates per tile as negotiated for the FDEM contract and utilizing the same Baseline Specifications from FDEM.

The LiDAR dataset for the SRWMD was acquired by Terrapoint USA in January of 2008 and processed to a bare-earth digital terrain model (DTM); it was produced to FDEM Baseline Specifications. Detailed breaklines and contours were produced by the PDS team for the 65-tile area to be mapped. Each tile covers an area of 5000 ft by 5000 ft. The map at Appendix A displays the 65 tiles of the SRWMD for which LiDAR DTMs and LiDAR-derived breaklines and contours were produced by the PDS team.

The FDEM Baseline Specifications require a maximum LiDAR post spacing of 4 feet, i.e., an average point density of less than 1 point per square meter. However, the PDS team required a much higher point density of its subcontractors in order to increase the probability of penetrating dense foliage; with nominal post spacing of 0.7 meters per flight line and 50% sidelap between flight lines, the average point density is 4 points per square meter. With higher point density there is a greater probability of penetrating dense vegetation and minimizing areas defined as "low confidence areas."

### **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:**

2008-01

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

W: -82.950106, E: -82.648021, N: 29.953209, S: 29.811839

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

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

**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 - The ABGPS, IMU, and raw Optech 3100ea LiDAR scans are integrated using Optech Incorporated's DASHMap, version 1.1 software, Terrascan software and Microstation software. The resultant file is in a LAS binary file format. The LAS file version 1.1 format can be easily transferred from one file format to another. It is a binary file format that maintains information specific to the LiDAR data (return#, intensity value, xyz, etc.). The resultant points are referenced to the NAD83 horizontal datum and GRS80 vertical datum. The date and time for each flight line can be determined using the Julian date and time. The Julian date is a continuous count of days and fractions since noon Universal Time on January 1, 4713 BCE on the Julian Calendar.
- 2008-01-01 00:00:00 - The unedited data are classified to facilitate the application of the appropriate feature extraction filters. A combination of proprietary filters are applied as appropriate for the production of bare earth digital terrain models (dtms). Interactive editing methods are applied to those areas where it is inappropriate or impossible to use the feature extraction filters, based upon the design criteria and/or limitations of the relevant filters. These same feature extraction filters are used to produce elevation height surfaces. The LiDAR mass points were delivered in American Society for Photogrammetry and Remote Sensing LAS 1.1 format. The header file for each dataset is complete as define by the LAS 1.1 specification. In addition the following fields are included (Precision reported in brackets): Class (Integer); GPS Week Time (0.0001 seconds); Easting (0.01 meter); Northing (0.01 meter); Elevation (0.01 meter); Echo Number (Integer 1 to 4); Echo (Integer 1 to 4); Intensity (8 Bit Integer); Flightline (Integer); Scan Angle (Integer Degree). The LAS files do not include overlap. The data was classified as follows: Class 1 = Unclassified. This class includes vegetation, buildings, noise etc. Class 2 = Ground Class 7= Noise Class 9 = Water
- 2015-04-23 00:00:00 - The NOAA Office for Coastal Management (OCM) received the files in las format from SRWMD. The files contained lidar elevation and intensity measurements. The data were in State Plane 903, NAVD88 (orthometric) heights in feet. OCM performed the following processing for data storage and Digital Coast provisioning purposes: 1. The data were converted from State Plane coordinates to

geographic coordinates. 2. The data were converted from NAVD88 (orthometric) heights in feet to GRS80 (ellipsoid) heights in meters using Geoid 03. 3. The LAS data were sorted by latitude and the headers were updated. 4. Duplicate points and erroneous elevations were removed.

**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/49693>

#### 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:

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=4891>

<https://noaa-nos-coastal-lidar-pds.s3.amazonaws.com/laz/geoid18/4891/index.html>

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

This data can be obtained on-line at the following URL:

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=4891>

The data set is dynamically generated based on user-specified parameters.;

##### 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.*