

*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:**

2005 St. Johns River Water Management District (SJRWMD) Lidar: Western Seminole County, Florida

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

This data set consists of a bare earth data set of 498 files covering a geographic area of 175 square miles in

western Seminole County, Florida and includes small portions of adjacent Orange and Lake Counties. The lidar data was

collected June 5-7, 2005. This data set seems to contain only model keypoints (points that are a thinned data set that is

intended to remove extraneous data such as trees and points that are deemed redundant to the final bare earth product)

that are classified as ground points. As a result, there are a lower number of points than in a full mass point lidar data

set; and it is recommended that the data be downloaded as points and used with a TIN (Triangulated Irregular Network)

or similar algorithm to produce a bare earth surface.

Original contact information:

Contact Name: Paul Finer

Contact Org: St. Johns River Water Management District (SJRWMD)

Phone: 386-329-4542

Email: gis\_support@sjrwmd.com

### **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:**

2005-06-05 to 2005-06-07

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

W: -81.486743, E: -81.240467, N: 28.875263, S: 28.639242

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

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

**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:

- 2005-06-07 00:00:00 - LiDAR Data Acquisition -- The Lidar data was collected utilizing an Optech ALTM (Airborne Laser Terrain Mapper) 2025 in a Cessna 208 Grand Caravan aircraft on June 5, 2005 between 0930 and 1150 hours at an altitude of 3000' AGL. Data was also collected starting June 6, 2005 at 1830 hours and ending on June 7 at 0900 hours. The configuration used a scan half-angle of +/-17 degrees, a laser pulse repetition frequency of 25 kilohertz, and a flying speed of approximately 80 knots. Airborne GPS using a Novatel dual frequency GPS receiver was accomplished during the flight session to provide positional information for the Lidar platform. Simultaneous acquisition of ground base station data was performed using a Novatel and Leica SR9500 dual frequency receivers for the June 5, 2005 session. Two Leica SR9500 dual frequency GPS receivers were used for the second session on June 6-7, 2005. Each station remained in operation for the duration of the project flight. The ground base stations were set up over National Geodetic Survey (NGS) monuments AK0205 (Designation Number I4 71 A14) and AK7045 (Designation Number GIS 0472 CAS 1). Positional information on these monuments was obtained from Data Sheets retrieved from the NGS website (<http://www.ngs.noaa.gov>). The GPS data from the ground base stations and the airborne platform were processed together using Applanix POSPac 4.2 software module POSGPS. All adjustments were referenced to WGS84. The Inertial Measurement Unit (IMU) solution was accomplished to provide information regarding the attitude of the Lidar platform using the Applanix POSPac 4.2 software module POSProc. This solution was integrated with the Airborne GPS and adjusted using a Kalman filter in a forward/reverse solution to provide a Smoothed Best Estimate of Trajectory (SBET). Laser ranging from the airborne platform was accomplished using Realm 3.2 processing software to provide XYZ ground positions for each point. The final horizontal values were output in Universal Transverse Mercator (UTM), Zone 17, units are meters. The horizontal datum conforms to the current Florida High Accuracy Reference Network (HARN) adjustment for the North American Datum of 1983. The Vertical Datum is the North American Vertical Datum of 1988 (NAVD88),

units are feet.

- 2005-07-01 00:00:00 - Classification of the laser data to extract above ground features such as buildings and vegetation leaving only bare earth ground points was performed using Terrasolid Ltd. Terrascan software (Version 003.003). The data was separated into five (5) separate sets 502 files representing Bald Earth First Pulse, Bald Earth Last Pulse, Extracted Features First Pulse, Extracted Features Last Pulse, and LAS format. The Bald Earth Last Pulse best represents the natural ground and is the file upon which all accuracy statements are based. The Extracted Features First Pulse best represents the canopy data that includes all features determined to be above the natural ground.

- 2008-11-14 00:00:00 - The NOAA Office for Coastal Management (OCM) received the bare earth files in ASCII format. The data were Universal Transverse Mercator (UTM), Zone 17, units in meters, NAVD88 vertical datum and the vertical units of measure were feet. OCM performed the following processing to the ASCII data to make it available within Digital Coast: 1. The data were converted from UTM coordinates to geographic coordinates. 2. The data were converted from NAVD88 (orthometric) heights to GRS80 (ellipsoid) heights using Geoid 03. 3. The LAS data were sorted by latitude and the headers were updated.

**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:

- 1.6. Type(s) of data
- 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/49685>

**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=101>

<https://noaa-nos-coastal-lidar-pds.s3.amazonaws.com/laz/geoid18/101/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/>;

**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.*