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:

2007 OPR Lidar DEM: Honeyman Dunes, OR

1.2. Summary description of the data:

Watershed Sciences, Inc. (WS) collected Light Detection and Ranging (LiDAR) data of the Honeyman Dunes study area, Oregon on March 13, 2007 for Oregon Parks and Recreation. The original study area covers ~2,612 acres; however, due to buffering and flight planning optimization, the delivered area covers 3,300 acres.

The NOAA Office for Coastal Management received the data from the Oregon Department of Parks and Recreation and processed it to the Data Access Viewer (DAV) and http. No metadata record was provided for this data set. This record was created by the NOAA Office for Coastal Management (OCM) using information from the data report.

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:

2007-03-13

1.5. Actual or planned geographic coverage of the data:

W: -124.138986, E: -124.090356, N: 43.95279, S: 43.915311

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:
Data were collected and processed by Watershed Sciences, Inc. for the OR Parks and

Recreation Department. The data were provided to the NOAA Office for Coastal Management (OCM) where the data were processed to make it available for custom download from the Data Access Viewer (DAV) and bulk download from https.

Process Steps:

- 2013-03-13 00:00:00 - Airborne Survey The LiDAR survey utilized an Optech 3100 LiDAR laser system mounted in Cessna Caravan 208. The survey was conducted March 13, 2007. The Optech 3100 system was set to acquire 71,000 laser pulses per second (i.e. 71kHz pulse rate) and flown at 1000 meters above ground level (AGL), capturing a scan angle of ±15o from nadir1. These settings yielded points with an average native density of >6 points per square meter. The native pulse density is the number of pulses emitted by the LiDAR system from the aircraft. Some types of surfaces (i.e., dense vegetation or water) may return fewer pulses than the laser originally emitted. Therefore, the delivered density can be less than the native density and lightly variable according to distributions of terrain, land cover and water bodies. The entire area was surveyed with opposing flight line side-lap of ≥ 50% (≥100% overlap) to reduce laser shadowing and increase surface laser painting. The system allows up to four range measurements per pulse, and all discernable laser returns were processed for the output dataset. To solve for laser point position, it is vital to have an accurate description of aircraft position and attitude. Aircraft position is described as x, y and z and measured twice per second (2 Hz) by an onboard differential GPS unit. Aircraft attitude is measured 200 times per second (200 Hz) as pitch, roll and yaw (heading) from an onboard inertial measurement unit (IMU).
- 2007-03-13 00:00:00 - Ground Survey During the LiDAR survey, multiple static (1 Hz recording frequency) ground surveys are conducted over monuments with known coordinates. After the airborne survey the static GPS data are processed using triangulation with CORS stations and checked against the Online Positioning User Service (OPUS2) to quantify daily variance. Multiple sessions are processed over the same monument to confirm antenna height measurements and reported position accuracy. Thales Z-max DGPS unit is used for the ground real-time kinematic (RTK) portion of the survey. To collect accurate ground surveyed points, a GPS base unit is set up over monuments to broadcast a kinematic correction to a roving GPS unit. The ground crew uses a roving unit to receive radio-relayed kinematic corrected positions from the base unit. This method is referred to as real-time kinematic (RTK) surveying and allows precise location measurement (σ ≤ 1.5 cm ~ 0.6 in). 301 RTK ground points were collected in the study area.
- 2007-01-01 00:00:00 - Processing 1. Resolve kinematic corrections for aircraft position data using kinematic aircraft GPS and static ground GPS data. Software: REALM 2. Develop a smoothed best estimate of trajectory (SBET) file that blends the postprocessed aircraft position with attitude data. Sensor head position and attitude are calculated throughout the survey. The SBET data are used extensively for laser point processing. Software: POSPAC, POSGPS 3. Calculate laser point position by associating the SBET position to each laser point return time, scan angle, intensity, etc. Creates raw laser point cloud data for the entire survey in *.las (ASPRS v1.1)

format. Software: REALM 4. Import raw laser points into manageable blocks (less than 500 MB) to perform manual relative accuracy calibration and filter for pits/ birds. Ground points are then classified for individual flight lines (to be used for relative accuracy testing and calibration). Software: TerraScan v.6.009 5. Using ground classified points per each flight line, the relative accuracy is tested. Automated line-to-line calibrations are then performed for system attitude parameters (pitch, roll, heading), mirror flex (scale) and GPS/IMU drift. Calibrations are performed on ground classified points from paired flight lines. Every flight line is used for relative accuracy calibration. Software: TerraMatch v.6.009 6. Position and attitude data are imported. Data are classified as ground and non-ground points. Statistical absolute accuracy is assessed via direct comparisons of laser points to ground RTK survey data. Data are then converted to orthometric elevations (NAVD88) by applying a Geoid03 correction. Ground models are created as a triangulated surface and exported as ArcInfo ASCII grids. Highest Hit model surfaces are developed from all points and exported as ArcInfo ASCII grids. Intensity images (GeoTIFF format) are created with averages of the laser footprint. Software: TerraScan v.6.009, ArcMap v9.1 7. The bin-delineated LAS files (ASPRS v1. 0) are converted to ASCII format, preserving x, y, z, and intensity fields. Software: TerraScan v.6.009
- 2021-06-09 00:00:00 - The NOAA Office for Coastal Management (OCM) received 1 digital elevation model (DEM) file in esri ArcGrid format from the Oregon Parks and Recreation Dept. The bare earth raster files was at a 1m grid spacing. The data were in UTM Zone 10 NAD83, meters coordinates and NAVD88 (Geoid03) elevations in meter. OCM assigned the appropriate EPSG codes (Horiz - 26910, Vert - 5703) and copied the raster file to https for Digital Coast storage and provisioning purposes. No metadata record was provided for this data set. This record was created by the NOAA Office for Coastal Management (OCM) using information from the data report.

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/64777

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=9325/details/9325
https://coast.noaa.gov/htdata/raster5/elevation/OR_Honeyman_Dunes_DEM_2007_9325

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_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.