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:
  2019 USFS Lidar: Rogue River Siskiyou National Forest (CA, OR)

  1.2. Summary description of the data:
  Product: Classified LAS 1.4 files formatted to 1,652 individual 1,000 m x 1,000 m tiles for the Rogue River Siskiyou Project Area.

  Geographic Extent: This dataset and derived products encompass an area covering approximately 569 square miles within Siskiyou and Del Norte Counties in California as well as Josephine and Jackson Counties in Oregon.

  Dataset Description: The Rogue River Siskiyou lidar project called for the planning, acquisition, and processing of lidar data collected at an aggregate nominal pulse spacing (ANPS) of 0.35 meters. Project specifications are based on the U.S. Geological Survey National Geospatial Program Base lidar Specification, Version 1.3. The data was developed based on the NAD83(2011) horizontal datum and NAVD88 (GEOID12B) vertical datum. Data was projected in UTM Zone 10N. Lidar data was delivered as processed Classified LAS 1.4 files, formatted to 1,652 individual 1,000 m x 1,000 m tiles. Derived products include: tiled Intensity Imagery, tiled DZ orthos, tiled hydroflattend bare earth DEMs and 3D waters edge breaklines.

  Ground Conditions: Lidar was collected in fall 2019, while the presence of snow on the ground was at a minimum and rivers were at or below normal levels. In order to post process the lidar data to meet task order specifications and meet ASPRS vertical accuracy guidelines, QSI established a total of 65 ground control points distributed throughout the Rogue River Siskiyou, Oregon project area. Lidar data was calibrated to these known ground locations. An additional 70 independent accuracy checkpoints, 43 in Bare Earth and Urban landcovers (NVA points) and 27 in Shrub, Tall Grass, and Forest categories (VVA points) were used to assess the vertical accuracy of the project data. These checkpoints were not used to calibrate or post process the data.

  The NOAA Office for Coastal Management (OCM) downloaded the:

  1. Lidar point data from this USGS site:

ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Elevation/LPC/Projects/
OR_RogueSiskiyouNF_2019_B19/OR_RogueRiverSiskiyouNF_B1_2019/

2. Breaklines, reports and metadata from this USGS site:

ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Elevation/metadata/
OR_RogueSiskiyouNF_2019_B19/OR_RogueRiverSiskiyouNF_B1_2019/

These files were processed to the Data Access Viewer (DAV) and https. The total number of laz files downloaded and processed was 1652.

The breakline data are available for download at the link provided in the URL section of this metadata record. Please note that these products have not been reviewed by the NOAA Office for Coastal Management (OCM) and any conclusions drawn from the analysis of this information are not the responsibility of NOAA or OCM.

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:
2019-10-05 to 2019-10-10

1.5. Actual or planned geographic coverage of the data:
W: -123.809255, E: -122.742024, N: 42.209784, S: 41.870498

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:
Quantum Spatial, Inc. collected data for the US Forest Service. The data was made available on the USGS Rockyftp site. NOAA OCM downloaded the laz files, the breaklines, metadata and reports and processed the data to be available from the Digital Coast.

Process Steps:
- 2019-10-10 00:00:00 - Lidar Pre-Processing: 1. Review flight lines and data to ensure complete coverage of the study area and positional accuracy of the laser points.   2. Resolve kinematic corrections for aircraft position data using kinematic aircraft GPS and static ground GPS data.   3. Develop a smoothed best estimate of trajectory (SBET) file that blends post-processed aircraft position with sensor head position and attitude recorded throughout the survey.   4. Calculate laser point position by associating SBET position to each laser point return time, scan angle, intensity, etc. Create raw laser point cloud data for the entire survey in *.las format.

Convert data to orthometric elevations by applying a geoid correction.   5. Import raw laser points into manageable blocks to perform manual relative accuracy calibration and filter erroneous points. Classify ground points for individual flight lines.   6. Using ground classified points per each flight line, test the relative accuracy. Perform automated line-to-line calibrations for system attitude parameters (pitch, roll, heading), mirror flex (scale) and GPS/IMU drift. Calculate calibrations on ground classified points from paired flight lines and apply results to all points in a flight line. Use every flight line for relative accuracy calibration.   7. Adjust the point cloud by comparing ground classified points to supplemental ground control points.

- 2019-10-10 00:00:00 - lidar Post-Processing: 1. Classify data to ground and other client designated classifications using proprietary classification algorithms.   2. Manually QC data classification   3. After completion of classification and final QC approval, calculate NVA and VVA, and density information for the project using ground control quality check points. Single swath nominal pulse spacing (NPS) was designed to be 0.50 m at nadir. Aggregate Nominal Pulse Spacing (ANPS) was calculated to be 0.20 m using all valid first return points.

- 2021-03-12 00:00:00 - The NOAA Office for Coastal Management (OCM) downloaded the lidar point data from this USGS site: ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/ Staged/Elevation/LPC/Projects/OR_RogueSiskiyouNF_2019_B19/ OR_RogueRiverSiskiyouNF_B1_2019/ These files were processed to the Data Access Viewer (DAV) and https. The total number of laz files downloaded and processed was 1652. The data were in UTM Zone 10 (NAD83 2011), meters coordinates and NAVD88 (Geoid12B) elevations in meters. The data were classified as: 1 - Unclassified, 2 - Ground, 7 - Low Noise, 9 - Water, 17 - Bridge Decks, 18 - High Noise, 20 - Ignored Ground. OCM processed all classifications of points to the Digital Coast Data Access Viewer (DAV). Classes available on the DAV are: 1, 2, 7, 9, 17, 18, 20. OCM performed the following processing on the data for Digital Coast storage and provisioning purposes: 1. An internal OCM script was run to report the las format, the point data format, the global encoding bit, and the min and max elevation values by file 2. An internal OCM script was run to check the number of points by classification and by flight ID and the gps and intensity ranges. 3. Internal OCM scripts were run on the laz files to: a. Convert from orthometric (NAVD88) elevations to ellipsoid elevations using the Geoid 12B model   b. Convert from UTM Zone 10 (NAD83 2011), meters coordinates to geographic coordinates   c. Filter out points with elevations less than -200 meters or greater than 4000 meters   d. Filter out points with coordinates outside this bounding box (-125, 40, -120, 45)   e. Assign the geokeys   f. Sort the data by gps time   g. Zip the data to database and to http

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/64356

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=9262/details/9262
https://noaa-nos-coastal-lidar-pds.s3.amazonaws.com/laz/geoid18/9262/index.html

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.