

*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 USFS Lidar DEM: Yaquina, OR

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

Watershed Sciences, Inc. (WS) collected Light Detection and Ranging (LiDAR) data for the United States Forest Service (USFS) in the Elk Creek watershed between July 13-15, 2005. The survey area is located inside the Siuslaw National Forest and encompasses all of Spout Creek (northern extent), Feagles Creek (southern extent), the confluence of these streams with Elk Creek (western extent), and up the headwaters of Elk Creek (eastern extent). The initial study area (~23,454 acres) was buffered by 200 meters, extending the contracted survey area to 26,385 acres.

Laser points were collected over the study area using an Optech ALTM 3100 LiDAR system set to acquire points at an average spacing of >8 points per square meter. The system also recorded individual return intensities (per laser return) that are used to create models that display surface reflectivity. Using this data, a bare-earth digital elevation model (DEM) was created with 1 meter horizontal resolution in UTM 10N projection and NAVD88 orthometric heights using geoid03.

No metadata record for this data set was provided to the NOAA Office for Coastal Management (OCM). This record was created with information from the data report. A link to the data report is provided in the URL section of this metadata record.

### **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:**

2005-07-13 to 2005-07-15

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

W: -123.75, E: -123.55, N: 44.6, S: 44.46

### **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:

Watershed Sciences, Inc. (WS) collected Light Detection and Ranging (LiDAR) data for the United States Forest Service (USFS) in the Elk Creek watershed between July 13-15, 2005. NOAA OCM received the data and ingested it into the Digital Coast Data Access Viewer for distribution.

Process Steps:

- 2017-01-01 00:00:00 - Acquisition. The Optech 3100 system was set to a 71kHz laser repetition rate and flown at 1,000 meters above ground level (AGL), capturing a 200 scan width (10 m from NADIR). These settings yielded points with an average density of > 8.0 per square meter, with an average spot spacing of 32cm. The entire area was surveyed with opposing flight line overlap of 50% to reduce laser shadowing and increase surface laser painting. The system allows up to four range measurements per pulse, and all were processed for the output datasets. The data stream from the IMU was stored independently during the flight, and was differentially corrected and integrated with LiDAR pulse data during post processing. Throughout the survey, a dual frequency DGPS base station recorded fast static (1 Hz) data. The station was located at the eastern edge of the study area, near Marys Peak, Oregon.
- 2019-11-27 00:00:00 - The NOAA Office for Coastal Management (OCM) received DEM files in ESRI GRID format from DOGAMI. The data were in UTM 10N coordinates and NAVD88 (Geoid03) elevations, with all units in meters. OCM converted the files to the open-source cloud-optimized GeoTIFF format (COGs) for provisioning purposes.
- Two differential GPS units were deployed and used to process kinematic solutions to the onboard GPS and inertial measurement unit (IMU) using PosPAC v4.2. Points were computed per flight line using the REALM Survey Suite v3.5.2. Microstation V8 and TerraScan were used to import the points into bins, remove pits and birds, and compute the bare earth model. TerraModeler was then used to create TINs and output ARCINFO ASCII lattice models, which were then imported into ArcMap to render one-meter mosaics of first returns, vegetation and ground models.

**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/58297>

**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?**

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=8952>

[https://coast.noaa.gov/htdata/raster2/elevation/USFS\\_Yaquina\\_OR\\_DEM\\_2005\\_8952/](https://coast.noaa.gov/htdata/raster2/elevation/USFS_Yaquina_OR_DEM_2005_8952/)

**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.*