

*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:**

NOAA Office for Coastal Management Coastal Inundation Digital Elevation Model: San Francisco Bay/Monterey (CA) WFO - Contra Costa, San Francisco, Alameda, San Mateo, and Santa Clara Counties

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

This digital elevation model (DEM) is a part of a series of DEMs produced for the National Oceanic and Atmospheric Administration Office for Coastal Management's Sea Level Rise and Coastal Flooding Impacts Viewer. The DEMs created for this project were developed using the NOAA National Weather Service's Weather Forecast Office (WFO) boundaries. Because the WFO boundaries can cover large areas, the WFO DEM was divided into smaller DEMs to ensure more manageable file sizes. The San Francisco Bay/Monterey (CA) WFO DEM was split into three smaller DEMs. They are divided along county lines and are: 1. San Francisco Bay/Monterey (CA) WFO - Santa Cruz and Monterey Counties 2. San Francisco Bay/Monterey (CA) WFO - Contra Costa, San Francisco, Alameda, San Mateo, and Santa Clara Counties 3. San Francisco Bay/Monterey (CA) WFO - Sonoma, Marin, Napa, and Solano Counties This metadata record describes the DEM for the San Francisco Bay/Monterey (CA) WFO - Contra Costa, San Francisco, Alameda, San Mateo, and Santa Clara Counties. The DEM includes the best available lidar data known to exist at the time of DEM creation for the coastal areas of Contra Costa, San Francisco, Alameda, San Mateo, and Santa Clara Counties, that met project specifications. The DEM is derived from LiDAR data collected for the California Coastal Conservancy, NOAA and the United States Geological Survey between 2009 and 2011. Hydrographic breaklines used in the creation of the DEM were obtained from the California Coastal Conservancy, NOAA or the USGS. The DEMs are hydro flattened such that water elevations are less than or equal to 0 meters. The DEM is referenced vertically to the North American Vertical Datum of 1988 (NAVD88) with vertical units of meters and horizontally to the North American Datum of 1983 (NAD83). The resolution of the DEM is approximately 5 meters.

### **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:**

2009 to 2011

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

W: -122.613440153, E: -121.025075153, N: 38.7373236235, S: 36.8932236235

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

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

Image (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?**

**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:

- 2011-01-01 00:00:00 - 1. Lidar source data and hydrographic breaklines were obtained and imported into an ESRI ArcGIS file geodatabase for each constituent county within the WFO boundary. Ground classified points (Class 2) and those classified as mudflats (Class 10; project specific) were used to reflect a bare earth surface. Hydrographic features were assigned elevation values at or below 0 meters. An ESRI Terrain was then generated from these source data. 2. The ESRI Terrain was converted to a DEM (Erdas Imagine .img file format) with a cell size of 3 meters. The DEM was reviewed in Global Mapper for incorrect elevations and artifacts introduced from source inputs or during the raster creation process. Corrections were applied to the DEM and reprocessed for further review. 3. All DEMs for the entire study area (WFO) were loaded into Global Mapper for a final review. The constituent DEMs were then checked to ensure complete coverage within the study area and that no issues existed along the boundary between adjacent DEMs. Once it was determined all DEMs were seamlessly edge-matched and no other artifacts were present, the constituent DEMs were mosaiced together, resampled to 5m and reprojected to the NAD83 geographic coordinate system. (Citation: NOAA Office for Coastal Management lidar data holdings)

**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
- 7.3. Data access methods or services offered
- 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/48048>

**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:**

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