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:

San Francisco Bay Interferometric Bathymetry: Area B

1.2. Summary description of the data:

High resolution sonar data were collected over ultra-shallow areas of the San Francisco Bay estuary system. Bathymetric and acoustic backscatter data were collected simultaneously in 10 survey blocks. All of these blocks were surveyed with 100% cover of backscatter imagery. These data were collected as source material for planned benthic habitat mapping. An earlier project had been completed to map the very-shallow subtidal and intertidal areas using optical methods. Interferometric sidescan bathymetry data were acquired using a 468 kHz Bathyswath sonar system aboard the RV MacGinitie and RV Kelpfly. Both of these platforms were well suited to acquire data in the very shallow subtidal areas of the bay.

Original contact information:

Contact Name: Jen Eckerle

Contact Org: Ocean Protection Council (OPC)

Title: Deputy Director, Ocean Protection Council

Phone: 916-653-9416

Email: jen.eckerle@resources.ca.gov

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:

2015-03-16 to 2015-12-12

1.5. Actual or planned geographic coverage of the data:

W: -122.5032, E: -122.0462, N: 38.13586, S: 37.455

1.6. Type(s) of data:

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

Map (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:

- 2014-01-01 00:00:00 - Interferometric side-scan bathymetric data collection. Prior to data collection, a series of planned survey lines were created using the survey navigation and planning software HYPACK (Hypack, Inc). An Applanix Position and Orientation System, Marine Vessel (POS MV 320 v4) system was used on the RV MacGinitie and a Wavemaster on the RV Kelpfly to provide position and attitude data during data collection and accounted for vessel motion such as heave, pitch, and roll (position accuracy 2m, pitch, roll and heading accuracy +/-0.02 degrees, heave accuracy +/-5% or 5cm). KGPS altitude data were used to account for tide cycle fluctuations and sound velocity profiles were collected with YSI Castaway CTDs. Data acquisition, post-processing, and final products derived from bathymetry data were handled by the Seafloor Mapping Lab at CSUMB and submitted to Fugro Pelagos for inclusion in the San Francisco Bay Habitat Mapping project. Delivered formats included CARIS base surface, BAG, ESRI Grid, and color relief Geotiffs, for each block.
- 2016-04-15 00:00:00 - Bathymetric data processing. Bathymetry data were acquired in SXR files using an Bathyswath 468 kHz sonar. The bathymetry was processed in Bathyswath Swath Processor software to correct for post-processed navigation/ positioning, tides, sound velocity, calibration values, and noise. After processing in Swath Processor, the processed lines were converted to HDCS format using CARIS HIPS and SIPS (v8.18 and v8.19). CARIS CUBE surfaces in the CSAR file format were generated at a 1-meter bin size for each survey block and further cleaned of noise. These CSAR surfaces were exported at 1m and 2m resolution to BAG format, ESRI Grid format, and color-coded geo-tiff formats. More detailed information on data processing can be found in the project Data Acquisition and Processing Report NCNP0000-14-01192_DAPR.pdf

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/47864

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?

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.