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:

NOS Hydrodynamic Model Outputs of Operational Forecast System (OFS)

1.2. Summary description of the data:

NOAA develops, operates and maintains a national network of operational nowcast and forecast hydrodynamic modeling systems referred to as Operational Forecast Systems (OFS) to further support its mission goals and priorities for safe navigation and understanding environmental conditions. The OFS have typically been the result of collaborations within the National Ocean Service (NOS). However, critical partners in NOAA's Office of Oceanic and Atmospheric Research (OAR), other government agencies and academia have also resulted in the implementation of an OFS. Looking ahead, NOS will continue to work with its external research partners to enhance its modeling capabilities. An OFS consists of the automated integration of observing system data streams, hydrodynamic model predictions, product dissemination and continuous quality control monitoring. State-of-the-art numerical hydrodynamic models driven by real-time data and model forecast guidance form the core of these end-to-end systems.

The models generate nowcast and forecast guidance outputs for four environmental parameters: water levels, water temperatures, salinity and currents. The web pages display time series and animations of the aforementioned four parameters along with the NWS forecasted winds used to force the latest OFS nowcast and forecast runs.

The OFS are implemented in critical ports, harbors, estuaries, the Great Lakes and coastal waters of the United States, and join NOS' operational oceanographic capabilities to form a national backbone of real-time data, tidal and tidal current predictions, data management and operational modeling. The OFS provide nowcast and short-term (0 - 120 hour) forecast guidance.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

Ongoing series of measurements

1.4. Actual or planned temporal coverage of the data:

2001 to Present

1.5. Actual or planned geographic coverage of the data:
W: -157, E: -61, N: 65, S: 18

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)
Map (with animations), model (digital), downloadable data (NetCDF)

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:
Stakeholder Services Branch

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:
tide.predictions@noaa.gov

2.5. Phone number:
301-713-2815

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:
Stakeholder Services Branch

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):

Lineage Statement:
Data from active sensors are recorded and transmitted; then they go through a quality control procedure and are loaded into a database. Model output files include 2-dimensional fields of wind speed and direction and water level elevations, and 3-dimensional fields of tidal currents, water temperature, and salinity. These hourly fields are updated four times per day. Time series at specific points are also outputted on a six-minute interval with most locations coinciding with CO-OPS observational stations. All of these outputs cover a 6-hour nowcast period and at least a 48-hour forecast. Wind model output are derived from products of National Weather Service's operational weather models, such as North American Mesoscale (NAM), Global Forecast System (GFS), High-Resolution Rapid Refresh (HRRR), or National Digital Forecast Database (NDFD).

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):

The Continuous Operational Real-time Monitoring System (CORMS) staff is responsible for the 24 hours a day, 7 days a week monitoring of NOS operational observations, predictions, and operational forecast systems (models). The Modeling Team will work with CORMS to investigate the flags and work on solutions to ensure timely and correct information is displayed on the OFS web page and disseminated through the Center for Operational Oceanographic Products and Services (CO-OPS) THREDDS server.

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)
- 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
- 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
- 7.2. Name of organization of facility providing data access
- 7.2.1. If data hosting service is needed, please indicate
- 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/69283

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:

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:

https://noaa-nos-ofs-pds.s3.amazonaws.com/index.html
https://registry.opendata.aws/noaa-ofs/
https://www.ncei.noaa.gov/thredds/catalog/model/model.html
https://opendap.co-ops.nos.noaa.gov/thredds/catalog.html
https://tidesandcurrents.noaa.gov/models.html

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):
Center for Operational Oceanographic Products and Services - Silver Spring, MD

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.