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:

C-CAP Land Cover, Erie County, Ohio, 2015

1.2. Summary description of the data:

The NOAA Coastal Change Analysis Program (C-CAP) produces national standardized land cover and change products for the coastal regions of the U.S. C-CAP products inventory coastal intertidal areas, wetlands, and adjacent uplands with the goal of monitoring changes in these habitats. The timeframe for this metadata is summer 2016. These maps are developed utilizing high resolution National Agriculture Imagery Program (NAIP) imagery, and can be used to track changes in the landscape through time. This trend information gives important feedback to managers on the success or failure of management policies and programs and aid in developing a scientific understanding of the Earth system and its response to natural and human-induced changes. This understanding allows for the prediction of impacts due to these changes and the assessment of their cumulative effects, helping coastal resource managers make more informed regional decisions. NOAA C-CAP is a contributing member to the Multi-Resolution Land Characteristics consortium and C-CAP products are included as the coastal expression of land cover within the National Land Cover Database.

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

1.5. Actual or planned geographic coverage of the data:

W: -82.902, E: -82.338, N: 41.485, S: 41.28

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:

- 2019-05-10 00:00:00 - This dataset was created by NOAA's Ocean Service, Office for Coastal Management (OCM). Random Forest Classification: The initial 1m spatial resolution 6 class high resolution land cover product was developed by EarthDefine using a Geographic Object-Based Image Analysis (GEOBIA) processing framework. This involves taking each image to be classified and grouping the pixels based on spectral and spatial properties into regions of homogeneity called objects. The resulting objects are the primary units for analysis. Additionally, these objects introduce additional spectral, shape, textural and contextual information into the mapping process and are utilized as independent variables in a supervised classification. Each object is labeled using a Random Forest Classifier which is ensemble version of a Decision Tree. Training data for the initial 6 classes (Herbaceous, Bare, Impervious, Water, Forest and Shrub) were generated through photo interpretation. The resulting Random Forest model was applied to the input data sets to create the initial automated map. Land Cover Refinement: Quantum Spatial took the initial automated map and made refinements to the existing land cover categories and incorporated new categories including Palustrine Forest, Palustrine Shrub, Palustrine Emergent, Palustrine Aquatic Bed, and Unconsolidated Shore. This work was performed through a combination of modeling in the object-based and pixel-based environment. USGS Color Orthoimagery (2015) served as the primary imagery data source. Ancillary data was collected from a variety of sources including the NOAA Digital Coast, National Wetland Inventory, Soil Survey Geographic Database, Open Street Maps, and the Ohio Geographically Referenced Information Program. This refined map was delivered to NOAA for final refinement. NOAA started with the refined map from Quantum Spatial and added Cultivated and Pastured land cover classes, as well as refining all land cover classes. Agriculture: Cultivated land and Pasture/Hay features were incorporated into the grassland category of the refined land cover product through a modeling process which relied on spectral data, parcel data from the state, 30m land cover from NOAA C-CAP, the National Land Cover Database, and the National Agriculture Statistics Service. Manual edits were made to the final classes. Impervious Surface and Open Space Developed: Ancillary data including road networks and parcel data were used in combination with spectral and spectral derivative data to refine these classes. Much of this refinement was performed on very small objects using parcel boundaries and vegetation indices to remove overestimated Impervious Surface (around buildings, along road edges, and in shadows). Open Space Developed was incorporated into areas as needed along road edges and homes, in industrial areas, and parks through a similar approach used to refine the impervious surface class. Additional cleanup was performed to remove speckle and slivers. Morphology and speckle: A final series of models were run on the

land cover to clean-up illogical speckle (e.g. small grass feature in the middle of cultivated field) and refine the morphology of natural land cover classes.

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/56274

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.