

## Chesapeake Bay NERR FY2017 Habitat Mapping Data Sharing Plan

(1) Types of environmental data and information to be created during the course of the project:

The Reserve will develop land cover/ land use maps.

(2) The type of collection method:

Land cover and land use maps:

CBNERR will use a combination of the best available imagery and remotely sensed data to create the land cover and land use maps. This may include VGIN (Virginia Geographic Information Network) VMBP (Virginia Base Mapping Program) imagery (true color and infrared) collected on a four year time scale (last effort was 2013, 2017 data being currently collected and processed for distribution). This imagery is delivered to counties at the 200 scale, 1 foot pixel resolution with optional upgrades at the 6 inch and 3 inch pixel resolution. CBNERRVA may also use the leaf-on, 1-meter true color imagery (ortho imagery) available through the National Agriculture Imagery Program which acquires aerial imagery during the agricultural growing seasons in the continental US. An additional and valuable will be LIDAR data which has been collected by VGIN, in cooperation with USGS, FEMA, NGA, NRCS and some localities. Most of these datasets meet USGS specifications for accuracy and quality, with vertical accuracies of 24.5 cm (0.82 ft) or better and each Reserve component has been covered (at least once) with the latest available datasets from 2011-2012. When available, CBNERRVA will also take advantage of special opportunities for imagery collection through partnerships with NOAA including a recent data collection using an eBee drone which provided 6 inch resolution data (collected in October of 2016) for our Catlett Islands component and 6 inch true color aerial imagery (georectified orthomosaic) collected through the a private vendor in 2016 (Flying H Aerial Pictures LLC).

(3) Tentative date by which data will be shared:

All land cover and land use maps and associated products will be submitted to NOAA for review by the Habitat Mapping and Change Technical Committee (HMCTC) according to the schedule proposed in the associated grant task (Operations award task 315-8; task end date: August 2018). Reserve staff will respond to the edits and submit a final map within 2 months of receiving the edits.

(4) Standards to be used for data/metadata format and content:

Land cover and land use map data format and content is described in the table below for two different land cover/land use mapping strategies. The Reserve intends to use high resolution strategies. Ground-truth surveys and accuracy assessments are conducted.

(5) Policies addressing data stewardship and preservation:

The NERRS System-wide Monitoring Program (SWMP) Data Management Committee (DMC) and the Habitat Mapping and Change Technical Committee (HMCTC) ensure Quality Assurance/Quality Control (QA/QC) compliance with the standards established by the Habitat Mapping and Change Plan. HMCTC provides approval that maps comply with established standards. Final data and products (maps) are housed at the Centralized Data Management Organization

<http://cdmo.baruch.sc.edu>.

(6) Procedures for providing access to data and priori experience in publishing such data:

In collaboration with the University of South Carolina Research Foundation, CDMO is maintained in support of the NERRS Habitat Mapping and Change program. All data is made available via the CDMO online data information server (ODIS) <http://cdmo.baruch.sc.edu>. CDMO houses over 35 million NERRS data records dating back to 1995.

For more information, including a copy of *Mapping Land Use and Habitat Change in the NERRS: Standard Operating Procedures; Version 2 Amended September, 2012* contact [nina.garfield@noaa.gov](mailto:nina.garfield@noaa.gov)

|                             | <b>High Resolution/<br/>Moderate Classification<br/>Accuracy</b>   | <b>High Resolution/<br/>High Classification<br/>Accuracy</b>   |
|-----------------------------|--|--|
| Resolution                  | 1-meter or 3-meter; (Reserves should refer to using highest resolution imagery available)                                  | 1-meter or 3-meter; (Reserves should refer to using highest resolution imagery available)                              |
| Scale                       | 1:12,000 or 1:24,000   | 1:12,000 or 1:24,000, or higher (i.e. 1:5000)  |
| Minimum mapping requirement | Inter-tidal, supra-tidal   | Inter-tidal, supra-tidal   |
| Data source                 | Varies depending on reserve; If using supervised semi-automated classification, RGB, and IR is required. LiDAR is helpful. | Varies depending on reserve; If using automated classification, RGB, and IR is required. LiDAR is helpful.             |
| Data type                   | vector, polygon (shapefile)  | vector, polygon (shapefile)  |
| Data processing             | Heads up digitizing or semi-automated process if possible (CSC will support)   | Heads up digitizing or semi-automated process if possible (CSC will support)   |
| Target minimum mapping unit | 0.1 ha (0.25 ac)   | 0.1 ha (0.25 ac)   |
| Classification              | NERRS Hierarchical Classification System (class level)   | NERRS Hierarchical Classification System (sub-class level)   |
| Metadata                    | FGDC Compliant – produced by reserves  | FGDC Compliant – produced by reserves  |
| Projection                  | Transverse Mercator  | Transverse Mercator  |
| Collection Interval         | Minimum of every 10 years  | Minimum of every 10 years  |
| Accuracy Assessment         | Conducted at the Class Level of the NERR Classification scheme   | Conducted at the Sub- Class Level of the NERR Classification scheme unless prohibitive based on resource availability. |