



Dr. Dwayne Porter directs the NOAA National Estuarine Research Reserves System's Centralized Data Management Office (CDMO) located at the North Inlet-Winyah Bay NERR in Georgetown, SC. Dwayne oversees the data management activities of the CDMO in support of the NSC. He is a Professor with the Arnold School of Public Health (ASPH) and the Baruch Institute for Marine and Coastal Sciences at the University of South Carolina. Dwayne's research focuses on the roles that technology and technological innovations play in monitoring, assessing, modeling and managing our environmental resources and associated environmental, public health and environmental justice issues. Dwayne focuses on the use of the tools of GISciences and data management to develop and apply spatial models to study the impacts of anthropogenic and physiographic influences to coastal resources and potential human health concerns. Dwayne focuses on the use of the same tools in support of effective, participatory community engagement; the latter being a hallmark of the NERRS.

Data Management for NERRS Science Collaborative Projects Provided by the NERRS Centralized Data Management Office

The NERRS Centralized Data Management Office (CDMO) supports the NOAA NERRS System-wide Monitoring Program (SWMP), Sentinel Site activities and the Integrated Ocean Observing System (IOOS) initiative. CDMO is a key partner with the NERRS Science Collaborative (NSC) focusing on two NSC program goals. The first is the transfer of key knowledge and lessons learned to reserves as well as local, state, and federal coastal management decision makers and educators. The second is the delivery of highly credible, valid, and relevant scientific data and derived information that are both timely and universally accessible.

Specifically, the CDMO provides the following services:

- Assimilation and sharing of data among regional and local partners;
- QA/QC and metadata support required for data integration;
- Web portals and web services for dissemination of data and information products;
- Archives for data and information products;
- Establishment of active relationships with core and cooperating programs to coordinate intra- and inter- regional data-management efforts and critical technical training; and
- Representation to interact with NOAA data management initiatives, i.e., Digital Coast Partnership, IOOS Program Office.

The CDMO works closely with the NSC staff and with the project leads and data management staff of each NSC-supported project.

Why this work?

The role of the CDMO is to ensure that projects funded by the NSC adhere to established federal and NOAA data management protocols, including QA/QC, data documentation, data and information dissemination, and data archival.

Specific tasks include working with NSC staff and grant recipients to:

- Support project specific protocols for data collection, QA/QC, documentation and access;
- Maintain a node client at an identified existing data portal and assisting with testing node client to host node connections;
- Support data exchange schema to ensure interoperability;
- Support identification and implementation of options for data transfer;
- Provide for long-term archival of project data via the use of NOAA-approved data archival services such as the NODC (newly renamed as the National Center for Environmental Information (NCEI) – Asheville); and
- Provide data management training.

Outputs and Impacts to Date

The CDMO has worked closely with the NSC and all project participants to ensure that each project lead understands their responsibilities for data management. Each project has an approved Data Sharing Plan (DSP) and data management progress is reviewed on an annual basis. As a result, the data generated by each NSC-funded project will be accessible to other researchers and resource managers who may wish to use them.

Anticipated Accomplishments Over the Next Two Years

The CDMO will work closely with each NSC-supported project to ensure that NOAA data management protocols have been adhered to and to ensure, to the extent possible, that data collected via these projects are documented via NOAA-approved metadata, archived and available to the public.

