ERD Site Profile Guidance

The principal mission of the monitoring program is to develop quantitative measurements of short-term variability and long-term changes in the integrity and biodiversity of representative estuarine ecosystems and coastal watersheds for the purposes of contributing to effective coastal zone management. The program is designed to enhance the value of the reserves as a s system of national reference sites. To this end, the National Estuarine Research Reserve Code of Federal Regulations Sec. 921.60 G states:

(a) To provide a systematic basis for developing a high quality estuarine resource and ecosystem information base for National Estuari Research Reserves and, as a result, for the System, NOAA may provide financial support for basic monitoring programs as part of operations and management under Sec. 921.32. Monitoring funds are used to support three major phases of a monitoring program:

1. Studies necessary to collect data for a comprehensive site description/characterization;
2. **Development of a site profile**; and
3. Formulation and implementation of a monitoring program.

The National Estuarine Research Reserve Action Plan articulates:

Objective 1. INCREASE ECOLOGICAL UNDERSTANDING OF ESTUARIES THROUGH RESEARCH AND MONITORING.

Key Actions	Date	Status/Who
Site profiles – Complete 13 site profiles	Sept 05	Research Coordinators
Apalachicola	Dec 05	
Padilla Bay	Oct 05	
Chesapeake Bay MD	Oct 06	
Chesapeake Bay VA	Oct 05	
Grand Bay	Oct 06	
GTM	Oct 06	
Hudson	Oct 05	
Jacques Cousteau	Oct 05	
Narragansett	Oct 05	
North Carolina	Oct 06	
North Inlet Winyah Bay	Oct 05	
San Francisco	Oct 06	
Wells	Oct 06	

ERD provided guidance to sites in 1996 in order to achieve a consistently high quality product for use in the scientific and management community. The purpose of the site profile is to

summarize the existing state of knowledge for your site's research and monitoring activities and to identify research needs that should be addressed in the future. If there is little information regarding one of the outlined items, specify that as a research need. If there is an abundance of information on a particular subject, cite the most appropriate summary literature.

From previous guidance " The target audience for the site profile is as follows:

> Site profiles are intended to be primarily technical documents that provide a summary of scientific information for academic and agency researchers, graduate students, advanced undergraduates, and coastal resource managers. The completed site profile should include references to the primary technical literature and description of ecosystem components, ecological processes, habitats, and the floral/faunal communities that provide an adequate basis for the development of scientific studies and applied management investigations.

This definition is based on the majority opinion of the research coordinators and managers, in consultation with ERD, through both individual and group discussions, and your written comments. In the case of multi-component reserves, ERD strongly recommends that a review of each component be incorporated into a single document."

The following actions are recommended for insurance of a consistent product:

Stage	Reserve Action	ERD Action
2 - initial work	submit outline of proposed work	review outline and provide comments
3 - mid development	seek peer review of sections/drafts	
4 - final stages and publication	6 months before printing date, submit draft document to ERD	review draft and provide comments

NERRS Site Profile Outline

Preface

Acknowledgements

I. Introduction to the reserve
- A. Estuarine type characterization
- B. Description of NERRS program
- C. Reserve mission and site description
- D. Brief description of the NERRS program and importance of your site locally and as part of the national system
- E. Historical and cultural resources and context
- F. Estuarine habitats at the reserve
- G. Ecological significance and designations of reserve
- H. Major management priorities that directly impact the reserve and the setting of the reserve's research and monitoring activities
- I. Reserve protection efforts

II Environmental setting
- A. Estuarine geomorphology (including soils and sedimentary processes)
- B. Climate and weather
- C. Hydrology (watershed and tidal conditions)
- D. Land use and water use history within and adjacent to reserve
- E. Water quality
- F. Pollution impacts (nutrients, contaminants)

III Biological setting
- G. Biotic habitats
- H. Microbiological components
- I. Plankton
- J. Vegetation
- K. Invertebrates
- L. Fish, reptiles and amphibians
- M. Birds and mammals

IV Ecological setting (if appropriate, may be combined with biological setting)
- A. Origin and evolution of the estuary
- B. Influence of physical environment on the biota
- C. Biological productivity
- D. Community structure and processes

V Research and monitoring activities (past and current)
- A. Research facilities
- B. Research activities
- C. Monitoring activities

VI References

Optional

VII Appendix A. Assessment of research and monitoring needs
- A. Research facility needs
- B. Research gaps
- C. Monitoring priorities and needs
- D. Research priorities and needs