

Monitor National Marine Sanctuary

Human Dimensions

Management Issue

Critical to all aspects of resource conservation is the participation of the public and the users of those resources. A better understanding and quantification of the socioeconomic impacts of the Monitor National Marine Sanctuary (MNMS or Sanctuary) as well as perceptions by the public towards larger marine protected areas off the coast of North Carolina is needed to make more informed future management decisions.

Description

The MNMS and similar maritime cultural resources within the region are often referred to as important economic resources to the State of North Carolina. To date, there is little quantitative information to study this assertion. It is essential for managers to identify the key user groups and understand how policy and actions will affect and support the local and regional economy. In order to accurately assess any changes in impacts on the local communities, benefits to local economies, as well as track perceptions of key user groups such as the fishing and recreational diving community, baseline data is needed. It is also important to understand the non-market economic values including both use and non-use (passive economic use value or willingness to pay to see something protected or restored to a certain condition even if one doesn't directly use the resource). This information is necessary to support public investments in benefit-cost analyses and in damage assessment and restoration.



*A scuba diver explores a shipwreck.
Photo Credit: NOAA*

Questions and Information Needs

- 1) How do residents and visitors feel about the maritime heritage in coastal North Carolina? Do they perceive these resources to be important or valuable?
- 2) What is the economic valuation of both nonmarket and market economic values of direct uses of natural and cultural resources?
- 3) What is the passive economic use value or nonuse value?
- 4) What is the willingness to pay among stakeholders for resources in this region?
- 5) What are the economic impacts of each user group or stakeholder?
- 6) What affect does the sanctuary have or can it have on these groups?
- 7) What does the sanctuary provide to the local communities and economies?
- 8) Can cultural resources be used to stimulate local economies (ex: maritime heritage tourism opportunities)?
- 9) How do nonmarket valuers change with changes in natural and cultural resource quantities and qualities?
- 10) What are good indicators of the changes in market and nonmarket economic values that can be used to evaluate the change in ecosystem services provided by natural and cultural resources?

Updated: 6/18/2014

For More Information -- <http://www.sanctuaries.noaa.gov/science/assessment>

Scientific Approach and Actions

- Accumulate baseline data by synthesizing available statistics and conducting surveys among specific user groups and stakeholders
- Model how uses/users and user values change with changes in conditions of the sanctuary's natural and/or cultural resources
- Conduct periodic re-evaluations to identify changing trends or impacts
- Develop a suite of indicators to assess changes in ecosystem services of natural and cultural resources.

Key Partners and Information Sources

North Carolina Travel and Tourism Board; East Carolina University Programs in Maritime Studies, Sustainable tourism, Human Dimensions, Economics and Natural Resource Management; Graveyard of the Atlantic Maritime Museum; University of North Carolina Coastal Studies Institute; Duke University; North Carolina Sea Grant; National Parks Service

Sanctuary Resources Available

- Personnel for data collection and analysis

Resource Needs

- Funding and financial support
- Partnerships for shared responsibility of grant applications, project design, data collection, analysis, reporting, and monitoring (NOAA, tourism organizations, academic institutions)

Management Support Products

- Scientific papers and reports
- Baseline social science data
- Incremental re-evaluation reports

Planned Use of Products and Actions

- This research would aid in a more focused development of outreach and education products and provide the best possible social science to give all stakeholders a voice in the management of Sanctuary resources and foster a more cooperative management process
- Appropriate management actions based on findings

Program References

MNMS Management Plan.

- Education and Outreach Action Plan, Expansion Action Plan

MNMS Condition Report

- What are the levels of human activities that may influence living resources quality and how are they changing?
- What are the levels of human activities that may influence maritime archaeological resource quality and how are they changing?
- What are the levels of human activities that may influence habitat quality and how are they changing?
- What are the levels of human activities that may influence water quality and how are they changing?
- Do sanctuary waters pose risks to human health and how are they changing?

Next Generation Condition Report – Evaluation of Ecosystem Services

Cultural (non-material benefits)

- Sense of Place – aesthetic and spiritual attraction, and the level of recognition and appreciation given to efforts to protect a place's iconic elements
- Tourism and Recreation – experiential opportunities that include recreation and community activities

Updated: 6/18/2014

For More Information -- <http://www.sanctuaries.noaa.gov/science/assessment>

Monitor National Marine Sanctuary

Human Dimensions

- Science and Education – the capacity to provide intellectual enrichment, contributing information and knowledge
- Heritage – recognition of historical or heritage legacy

ONMS Performance Measures

- 3.8: Measuring Public Awareness Performance
- 3.9: Measuring Marine Zones Performance

Other Documents

- Knowledge, Attitudes and Perceptions of Management Strategies and Regulations of the Florida Keys National Marine Sanctuary by Commercial Fishers, Dive Operators, and Environmental Group Members: A Baseline Characterization and 10-year Comparison. ONMS socioeconomics science page: <http://sanctuaries.noaa.gov/science/socioeconomic/research.html>
- Guide for Developing Sanctuary Condition Reports, DRAFT (as of February 2014). Office of National Marine Sanctuaries, conservation Science Division.
- Johns, G., D.J. Lee, V. Leeworthy, J. Boyer and W. Nuttle. 2014. Developing Economic Indices to Assess the Human Dimensions of the South Florida Coastal Marine Ecosystem Services. Forthcoming in a special issue of the Journal of Economic Indicators.

Updated: 6/18/2014

For More Information -- <http://www.sanctuaries.noaa.gov/science/assessment>