

Olympic Coast National Marine Sanctuary

Human Dimensions/Socioeconomics

Management Issue

Human activities clearly influence the quantity and quality of Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) resources. However, more data on the spatial distribution and intensity of human activities and how those activities change through time are necessary to assess the level of these impacts. In addition, it is important to understand how people benefit or suffer costs from changes in natural and cultural resource conditions to assess ecosystem services provided by the sanctuary.

Description

Many human activities influence the condition of sanctuary resources, with some activities having a positive impact, and others having negative impacts. Because it is not feasible to effectively manage most natural or ecological processes, management of human uses is vital to the protection of resources in the sanctuary. It follows that data regarding human uses and activities is critical to understanding anthropogenic effects to the sanctuary, as well as benefits gained from the use of marine and coastal resources. In addition, data are needed to gauge the effectiveness as well as the costs and benefits of management actions. To better understand the relationship between human activities, the condition of resources within the sanctuary and the effectiveness of sanctuary regulations and management actions, additional data is needed on the level and location of various human activities. A unique feature of OCNMS is the presence of Coastal Treaty Tribes. Management of resources to support tribal self-determination and the economic health of tribal communities is an important objective that requires Human Dimensions/Socioeconomic information to foster that objective.



Questions and Information Needs

- 1) What is the current geographic distribution of human activities that influence the condition of sanctuary resources? Are there hot spots where high levels of human activities and impacts occur?
- 2) What are the past, current, and projected future levels of these human activities? What are the projected impacts on sanctuary resources?
- 3) How have sanctuary regulations impacted human activities in and around the sanctuary?
- 4) How do we determine the overall impact of multiple human activities (some with negative and some with positive influence) on sanctuary resources?
- 5) What is the socioeconomic and demographic background of the affected area?
- 6) What businesses are affected by the sanctuary and how?
- 7) How is human well-being affected by changes in the ecological status and trends in the sanctuary?

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

Scientific Approach and Actions

- Analyze existing demographic and socioeconomic data for Olympic Coast communities to determine the extent that they are affected by sanctuary activities and regulations
- Identify gaps in available data and methods to collect these data
- Understand and predict the level of human activity through space and time by tracking natural and anthropogenic impacts on the sanctuary at specific spatial and temporal scales
- Facilitate graduate student seminars to better gauge the sanctuary's effectiveness at dealing with the negative and positive effects of human activity
- Conduct online surveys regarding coastal and marine resource usage in order to gather data such as the economic impact and social significance of various human activities, and connect those activities to ecological and biological attributes of the marine environment
- Conduct surveys of tribal and non-tribal commercial fishers on their demographic/socioeconomic profiles; costs-and-earnings and knowledge, attitudes & perceptions of sanctuary management strategies and regulations.
- Conduct surveys to obtain information on recreational user spending, estimate the associated economic impact of these activities on local economies, and estimate the non-market economic values and how those values change with changes in natural and cultural resource attribute conditions.
- Collect information from the marine transportation industry to assess the socioeconomic impact of reducing risks of whale strikes by moving shipping lanes and/or slowing down traffic speeds.

Key Partners and Information Sources

Northwest Fisheries Science Center, Pacific Fisheries Management Council, Grays Harbor and North Pacific Coast Marine Resource Committees, Hoh, Makah, Quileute tribes, the Quinault Indian Nation, Ecotrust, Surfrider, University of Washington, Washington Department of Ecology, Washington Department of Fish and Wildlife, Washington Sea Grant.

Management Support Products

- Scientific papers and reports
- Baseline social science data
- Periodic re-evaluation reports
- Web site enhancement for communicating human dimensions/socioeconomic information
- Next generation Condition Report

Planned Use of Products and Actions

- The use of this information will be integral to developing management tools and strategies, in addition to assessing the applicability and effectiveness of current approaches
- Predict how people will be affected as the biological and ecological attributes of the marine environment change to evaluate management strategies and regulations
- Inform education and outreach programs issues important to stakeholders, help develop education and outreach materials, and more effectively communicate with stakeholders

Program References

[OCNMS Management Plan](#)

[OCNMS Condition Report](#)

[OCNMS Study Area Profile 1990 to 2010](#)

[Next Generation Condition Report – Evaluating Ecosystem Services](#)

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