

Channel Islands National Marine Sanctuary

Human Dimensions

Management Issue

The human dimensions of the CINMS need to be monitored and the status and trends of marine resources that support and/or are impacted by human use need to be documented.

Description

The sanctuary site is a public common, managed for multiple uses and for multiple stakeholder interests. The public money spent in the establishment and maintenance of the sanctuary site demands some accountability to address questions of status and trends of key marine resources that support and are impacted by human uses – both extractive and non-extractive. For example, marine reserves have had clear negative impacts on non-commercial, consumptive users of the sanctuary in their ability to respond to changing externalities such as fuel costs via changing spatial use. It is important to be able to document and communicate how people are affected by the implementation of marine reserves. In addition to studying the economic effects on commercial and recreational fishers, a complimentary effort is needed to assess people's knowledge and perceptions of the reserves and their efficacy among recreational anglers and the businesses (e.g. charter and fishing supply) that cater to these anglers. Beyond this clear service to commercial interests, it is also important to establish how these extractive goods and services have been balanced and in some case traded for non-extractive goods and services.



*Many recreational boaters and commercial fishers home port in Santa Barbara in between visits to the Sanctuary.
Photo credit: CINMS*

Questions and Information Needs

- 1) To what extent is the public aware of the trade-offs between consumptive and non-consumptive goods and services (e.g. transportation services vs. endangered species protection), that when made define the relative values placed on those goods and services?
- 2) How well, if at all, are members of the local and regional community able to distinguish the actual differences between the Sanctuary and other zonal management actions (such as no-take reserves) within the sanctuary?
- 3) How, if at all, are the knowledge, attitudes and perceptions of the sanctuary users changing over time and in response to diverse management actions?
- 4) What are the levels of human use, for each of the principal user groups, of Sanctuary goods and services?
- 5) Do non-consumptive users of the marine environment benefit from no-take reserves established in April 2003 and federal reserves established in 2007?
- 6) What are the trends in the public's consumption of goods and services provided by the sanctuary?

Current as of 11/28/2012

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

Scientific Approach and Actions

- Data collection on spatial use patterns, expenditures, knowledge, attitudes and perceptions of non-consumptive users, using peer-reviewed survey instruments
- Conduct SAMSAP overflights
- Develop monitoring of large ship traffic using AIS and acoustics
- Analysis of recreational fishing effort and catch using existing data (using Cal Rec Fishing Survey data – CRFS)
- Analysis of commercial fishing effort and catch using existing data (using California Department of Fish and Game (CDFG) and National Marine Fisheries Service (NMFS) logbook and landings data)
- Methods and instruments for collection of data on perceptions and attitudes of recreational fishers

Key Partners and Information Sources

CDFG, NMFS, Recreational fishing associations, CINMS naturalist Corps Volunteers, the University of California at Los Angeles (UCLA), and the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO)



*Sailboats at a Prisoners Harbor at Santa Cruz Island.
Photo credit: CINMS*

Management Support Products

- Custom ArcView program: Oceanmap
- Internet-based anchorage and boating survey (www.oceanstudy.net)
- Postcard and KAP (knowledge, attitudes and perceptions) survey instruments
- CINMS aerial flyover (SAMSAP) data

Planned Use of Products and Actions

- Manage human activities in the Sanctuary at an appropriate spatial scale for the activity mode
- Account for human values and direct financial impacts of expenditures by Sanctuary users
- Test maximum potential economic impact estimates prior to designation of reserves
- Inform state-wide marine policymaking and multi-stakeholder process on human dimensions of marine reserve designation and management

Program References

CINMS Management Plan

- Management Plan Conservation Science Action Plan CS.3

CINMS Condition Report

- What are the levels of human activities that may influence water 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 living resource 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?

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