SECTION I:
INTRODUCTION

Figure 2: *Breaching humpback whales may be seen at the Channel Islands during their seasonal migrations through the Santa Barbara Channel. (David O. James)*

This section provides background on the National Marine Sanctuary Program, the Channel Islands National Marine Sanctuary, and the management plan review process. It describes the organic act establishing the National Marine Sanctuary Program and the administrative hierarchy within which the program resides. Next, it details the history, goals, and accomplishments of the Channel Islands National Marine Sanctuary. Finally, this section introduces the fundamental steps of the management plan review process and explains how this process has been carried out at the Channel Islands concluding with development of this revised draft management plan.

Overview of the National Marine Sanctuary Program

The National Marine Sanctuary Program (NMSP) serves as the trustee for a system of 14 marine protected areas[3], encompassing more than 150,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes: 13 national marine sanctuaries and the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, which is being considered for sanctuary status. The NMSP is part of the National Oceanic and Atmospheric Administration (NOAA), which manages sanctuaries by working cooperatively with the public to protect sanctuaries while allowing compatible recreation and commercial activities. The NMSP works to enhance public awareness of our marine resources and marine heritage through scientific research, monitoring, exploration, educational programs and outreach.

Figure 3: *The System of National Marine Sanctuaries*

[3] Ex. Ord. No. 13158, May 26, 2000, 65 F.R. 34909 Sec. 2. (a) defines a "marine protected area" as, "…any area of the marine environment that has been reserved by Federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."

The national marine sanctuaries embrace part of our collective riches as a nation. Within their protected waters, giant humpback whales breed and calve their young, coral colonies flourish, and shipwrecks tell stories of our maritime history. Sanctuary habitats include beautiful rocky reefs, lush kelp forests, whale migrations corridors, spectacular deep-sea canyons, and underwater archaeological sites. Our nation's sanctuaries can provide a safe habitat for species close to extinction or protect historically significant shipwrecks. Ranging in size from one-quarter square mile in American Samoa's Fagatele Bay to the more than 5,300 square miles of Monterey Bay, California - one of the largest marine protected areas in the world - each sanctuary is a unique place needing special protection. Together, these sanctuaries protect nearly 18,000 square miles of coastal, open ocean and Great Lake waters and habitats. Natural classrooms, cherished recreational spots, and valuable commercial industries – marine sanctuaries represent many things to many people.

The National Oceanic and Atmospheric Administration (NOAA)

The National Oceanic and Atmospheric Administration (NOAA) conducts research and gathers data about the global oceans, atmosphere, space, and sun, and applies this knowledge to science and service that touch the lives of all Americans (www.noaa.gov). In doing so, NOAA warns of dangerous weather, charts our seas and skies, guides our use and protection of ocean and coastal resources, and conducts research to improve our understanding and stewardship of the environment that sustains us all.

A Commerce Department agency, NOAA provides these services through five major organizations: the National Weather Service, the National Ocean Service, the National Marine Fisheries Service, the National Environmental Satellite, Data and Information Service, and NOAA Research; and numerous special program units. In addition, NOAA research and operational activities are supported by the nation's seventh uniformed service, the NOAA Corps, a commissioned officer corps of men and women who operate NOAA ships and aircraft, and serve in scientific and administrative posts.

The NMSP provides oversight and coordination among the thirteen sanctuaries by setting priorities for addressing resource management issues and directing program and policy development. The NMSP also has responsibility for ensuring the management plan prepared for each Sanctuary is consistent with the NMSA and provides a general budget to estimate expenditures for program development, operating costs and staffing.

On an annual basis, the NMSP reviews and adjusts funding priorities and requirements to reflect resource management needs at each of the thirteen sanctuaries. The NMSP also monitors the effectiveness of the management plan, makes recommendations to promulgate regulatory changes where necessary and monitors intra- and inter-agency agreements.

The National Marine Sanctuaries Act

The National Marine Sanctuaries Act (16 U.S.C. 1431 et. seq.) is the organic legislation governing the NMSP.[4] The NMSA authorizes the Secretary of Commerce to designate as national marine sanctuaries areas of the marine environment or Great Lakes with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological,

[4] See Appendix B of Volume II, Draft Environmental Impact Statement, or online at: http://www.sanctuaries.nos.noaa.gov/natprogram/nplegislation/nplegislation.html

educational, or aesthetic qualities. In addition, the NMSA established the NMSP as the Federal program charged with managing national marine sanctuaries. The primary objective of the NMSA is to protect marine resources. The NMSA also directs the NMSP to facilitate all public and private uses of those resources compatible with the primary objective of resource protection.

The purposes and policies of the NMSA are:

(1) To identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance and to manage these areas as the National Marine Sanctuary System;

(2) To provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner which complements existing regulatory authorities;

NOAA Ocean Service
As the nation's principal advocate for coastal and ocean stewardship, the NOAA Ocean Service (www.nos.noaa.gov) develops the national foundation for coastal and ocean science, management, response, restoration, and navigation. NOS maintains a leadership role in coastal stewardship by bridging the gap between science, management, and public policy in the areas of healthy coasts, navigation, coastal and ocean science, and coastal hazards. Ten program offices are located within NOS:

- *The National Marine Sanctuary Program*
- *Center for Operational Oceanographic Products and Services (CO-OPS)*
- *National Centers for Coastal Ocean Science (NCCOS)*
- *Coastal Services Center (CSC)*
- *Office of Coast Survey (OCS)*
- *Office of Ocean and Coastal Resource Management (OCRM)*
- *Office of Response and Restoration (OR&R)*
- *National Geodetic Survey (NGS)*
- *International Program Office (IPO)*
- *Management and Budget Office (MBO)*

(3) To maintain the natural biological communities in the national marine sanctuaries, and to protect, and, where appropriate, restore and enhance natural habitats, populations, and ecological processes;

(4) To enhance public awareness, understanding, appreciation, and wise and sustainable use of the marine environment, and the natural, historical, cultural, and archeological resources of the National Marine Sanctuary System;

(5) To support, promote, and coordinate scientific research on, and long-term monitoring of, the resources of these marine areas;

(6) To facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities;

(7) To develop and implement coordinated plans for the protection and management of these areas with appropriate Federal agencies, state and local governments, Native American tribes and organizations, international

> organizations, and other public and private interests concerned with the continuing health and resilience of these marine areas;
>
> (8) To create models of, and incentives for, ways to conserve and manage these areas, including the application of innovative management techniques; and
>
> (9) To cooperate with global programs encouraging conservation of marine resources.

The NMSA and Ecosystem-Based Management

Various authors have defined the term "ecosystem management" in various contexts. Much of the current literature on ecosystem management cites the definition offered by Grumbine (1994):

> *Ecosystem management integrates scientific knowledge of ecological relationships within a complex sociopolitical and value framework toward the general goal of protecting native ecosystem integrity over the long term.*

Marine ecosystem-based management relies on the best available scientific information from both the natural and social sciences. It requires an understanding of oceanographic processes, habitat distribution and health, ecological services, and specific information on the abundance and distribution of marine life. In addition, ecosystem-based management requires adapting and learning from new culturally based and socioeconomic information (Agardy 1999). Given ecosystems span diverse geographic, administrative, political and economic boundaries, the need for strong partnerships among resource agencies, non-governmental interests, members of the public and scientific community, user groups and conservationists is essential.

These ideas are supported by the NMSA, which states the NMSP is to "maintain the natural biological communities, and to protect, and, where appropriate, restore and enhance natural habitats populations, and ecological processes" (16 U.S.C. 1431 (b)(3)) and "while the need to control the effects of particular activities has led to enactment of resource-specific legislation, these laws cannot in all cases provide a coordinated and comprehensive approach to the conservation and management of the marine environment" (16 U.S.C. 1431 (a)(3)).

As such, the 13 national marine sanctuaries subscribe to a broad and comprehensive management approach in keeping with the NMSA's primary objective of resource protection. This approach is unique in that it differs from the various national and local agencies and laws directed at managing single or limited numbers of species or specific human activities within the ocean. As such, for CINMS, ecosystem-based management serves as a framework for addressing long term protection of a wide range of living and non-living marine resources, while allowing multiple uses of the Sanctuary compatible with resource protection.

Overview of the Channel Islands National Marine Sanctuary

Background

Designated in 1980, the Channel Islands National Marine Sanctuary consists of an area of

approximately 1243 square nautical miles NM[5] of coastal and ocean waters, and the submerged lands thereunder, off the southern coast of California. The Sanctuary boundary begins at the Mean High Water Line of and extends seaward to a distance of approximately six NM from the following islands and offshore rocks: San Miguel Island, Santa Cruz Island, Santa Rosa Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock (the Islands) (Figure 4).

San Miguel, Santa Rosa, Santa Cruz and Anacapa Islands are parallel to the east-west trend of the California coast and vary in distance from 12 to 29 nautical miles offshore. Santa Barbara Island lies about 40 nautical miles south of Point Mugu, California.

Figure 4: *The Channel Islands National Marine Sanctuary*

The Sanctuary supports a rich and diverse range of marine life and habitats, unique and productive oceanographic processes and ecosystems, and culturally significant resources such as hundreds of shipwrecks and submerged Chumash cultural artifacts. The physical, biological, and cultural characteristics of the Sanctuary combined provide outstanding opportunities for scientific research, education, recreation, and commerce. Examples of

[5] Since designation the area of CINMS has been described as approximately 1252.5 square nautical miles. However, adjusting for technical corrections and using updated technologies, the CINMS area is now calculated as approximately 1243 square nautical miles. The legal description of CINMS is proposed to be updated to reflect this change (see Vol. II, DEIS, Section 2.1.1). This update would not constitute a change in the geographic area of the sanctuary but rather an improvement in the estimate of its size.

these include commercial and recreational fisheries, marine wildlife viewing, sailing, boating, kayaking and other recreational activities, and maritime shipping. A description of the Sanctuary setting is discussed in Section II of this document.

Sanctuary Goals

CINMS has several management goals. These goals directly reflect the overarching mission of the NMSP and are derived from the purposes and policies of the NMSA:

1) Protect the natural habitats, ecological systems and biological communities of all living resources inhabiting these areas, and the area's cultural and archaeological resources, for future generations;
2) Enhance public awareness, understanding, and appreciation of the marine environment and the natural, historical, cultural and archaeological resources of the National Marine Sanctuary System;
3) Where appropriate, restore and enhance natural habitats, populations and ecological systems;
4) Provide comprehensive and coordinated conservation and management of these marine areas, as well as the activities affecting them, in a manner complementing existing regulatory authorities;
5) Create models and incentives for ways to conserve and manage these areas, including the application of innovative management techniques;
6) Allow to the extent compatible with the primary objective of resource protection, public and private uses of the resources; and
7) Cooperate with national and international programs encouraging conservation of marine resources.

These goals are carried out by CINMS in its ecosystem-based approach to management, using the best available natural and social science information.

Accomplishments

Relative to these goals, CINMS has had many major accomplishments since Sanctuary designation in 1980. The following bullets highlight some of these achievements by thematic area.

Education and Outreach

- Promotion of community involvement in Sanctuary management through the formation of the Sanctuary Advisory Council and several working groups;
- Development of a network of marine reserves through a fair and open community-based process that brought together key stakeholders and the best available scientific and socioeconomic data;
- Assistance in development of the Santa Barbara Sea Center and the Outdoor Santa Barbara Visitor Center;
- Development of "Los Marineros," an acclaimed 5th grade marine education program now reaching numerous classes and thousands of students per year throughout Santa Barbara County;
- Ongoing educational outreach efforts reaching more than 80,000 people per year through the distribution of publications and other products (such as the Alolkoy newsletter, Sanctuary brochures, special reports, posters, educational resource directories), as well as active participation in public programs, lectures, and events;
- Production of a state-of-the-art, content-rich web site enabling public access to a

wealth of information about the Sanctuary (such as marine life, research projects, management issues, public meetings, maps and weather) and receives over 8,000 visits per month;
- Expanding regional awareness and understanding of the Sanctuary through opening of an office in Ventura County;

Conservation Science
- Holding of monitoring workshop on marine reserves in the CINMS with over 100 experts and stakeholders and development of Draft Ecological and Socioeconomic Monitoring Recommendations;
- Increasing knowledge of CINMS and the surrounding environment by providing the scientific community with appropriate opportunities to use Sanctuary research vessels and aircraft;
- Development of a state-of-the-art Geographic Information System, allowing visual characterization of Sanctuary features to improve management decision making and enhance educational opportunities;
- Hosting of the Sustainable Seas Expeditions in 1999 and 2000 to conduct unique surveys (1-person submersible dives to 2000 feet) within and near the Sanctuary, including geologic and fish assessments, sidescan sonar, and characterization of the Santa Barbara Channel eddy;
- Ongoing vessel and staff support for long-term environmental monitoring programs, such as the University of California Santa Barbara's Plumes and Blooms oceanographic study (monitoring ocean color variation in the Santa Barbara Channel through water sampling and satellite data comparison) and Bight '98 and Bight '03 (regional marine monitoring surveys of marine life and water quality along the Southern California Coast);
- Collection of tens of thousands of data points on marine mammals and vessel use within CINMS through the Sanctuary's aerial monitoring program; and
- Procurement of state-of-the-art research vessel *Shearwater*

Resource Threat Reduction
- Establishment of a permanent prohibition on new oil and gas development within 6 miles of the Channel Islands since 1980;
- Reduction in air traffic disturbance to wildlife;
- Establishment of vessel traffic restrictions to help prevent large cargo vessel groundings at the islands;
- Prohibition of pollutant discharges into Sanctuary waters to preserve and protect water quality;
- Protection of hundreds of Chumash artifacts and over 150 known shipwrecks;

Community Involvement and Support
- Providing opportunities for approximately 20 interns per year and hundreds of volunteers to learn about the Sanctuary, help protect its resources, and gain valuable career experience;
- Consultation with local mariners to develop ethnographic data about Sanctuary resources and uses, providing for enhanced management decision-making;
- Providing public access internet weather kiosks (with over 40 online regional weather links) at local harbors and visitor centers; and
- Annual training and deployment of a base of 80–100 volunteers to provide

naturalist interpretive services on whale-watching boats and island hikes (Channel Islands Naturalist Corps).

Although these accomplishments constitute major successes for the Sanctuary, new management issues have emerged, existing management issues have changed, and CINMS continues to adapt its management actions to build on these successes and best protect the Sanctuary's resources while allowing compatible resource use. This is accomplished through the management plan review process.

CINMS Management Plan Review

The Management Plan Review Process

Management plan review, which is required by the NMSA (16 U.S.C. 1434(e)) for all national marine sanctuaries, is conducted to ensure each site conserves and protects its living and cultural resources. Management plans are sanctuary-specific documents describing regulations and boundaries, outline staffing and budget needs, present management actions and performance measures, and guide development of future budgets and management activities.

The management plan review process is based on three fundamental steps: 1) public scoping meetings; 2) the prioritization of issues and development of action plans; and 3) the preparation of draft and final management plans and the relevant NEPA documentation (such as an Environmental Impact Statement or Environmental Assessment). Formal public hearings on the draft plan help staff revise the document into a final management plan, which, once approved, will outline the Sanctuary's priorities for the next five to ten years.

Revising the Existing Management Plan

The existing management plan for CINMS was published in 1983. Since then, many things have changed at the Sanctuary. Whereas the population of southern California[6] was approximately 13.5 million in 1980 (U.S. Census Bureau 1995), population levels now reach nearly 20 million, including over 1.1 million in Santa Barbara and Ventura counties (U.S. Census Bureau 2000a). This represents a regional increase in population of approximately 43%. Coupled with population growth continuing urbanization of the region has increased pressures on CINMS marine resources. Increasing, shifting, and new uses of the marine environment have made Sanctuary management more complex and challenging.

Advances in resource management techniques and tools have also occurred over the last 20 years. As such, CINMS has developed a more sophisticated understanding of the Sanctuary's natural and human environment while coming to the realization much of the existing management plan is outdated. As such, the Sanctuary began the review of its management plan by initiating the scoping process and soliciting the views of a wide variety of regional interests to determine the most current, relevant, and high-priority resource management issues for the Sanctuary.

[6] Defined for purposes of deriving U.S. census population estimates contained within this draft management plan as the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura.

The Sanctuary Advisory Council

In December 1998, CINMS convened a 20-member Sanctuary Advisory Council to provide guidance and offer advice to the Sanctuary Superintendent. The Advisory Council includes 10 government agency seats and 10 community stakeholder seats (with an alternate for each seat) and provides a platform for public input into the management of the Sanctuary. Throughout the entire management plan revision process, this partnership with the Advisory Council has allowed CINMS to build on and use unique knowledge and resources the private sector and other agencies have to offer. The Advisory Council has participated in every step of the management plan review process, including the public scoping meetings. The Advisory Council has also been an effective body for drawing in public participation and building a shared understanding of Sanctuary management through open discussion and collaborative efforts.

Scoping

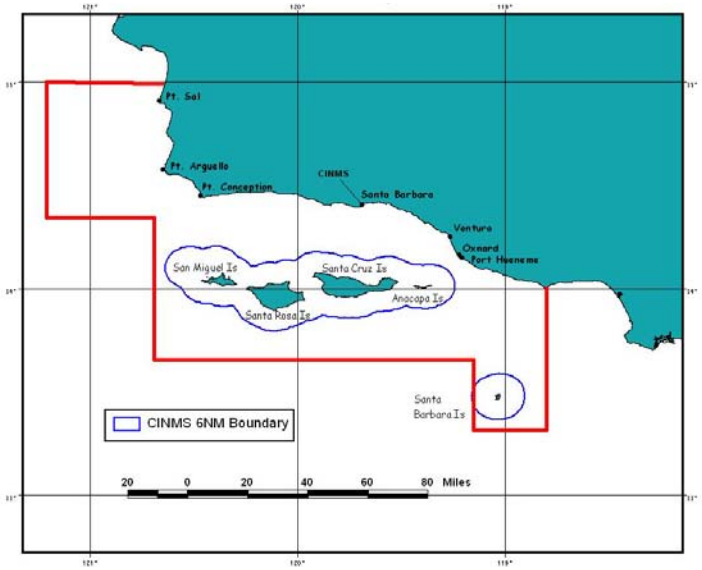
CINMS began review of its existing management plan in 1998. Seven public scoping meetings were held throughout the region, from San Luis Obispo in the north to Long Beach in the south (one meeting was also held in Washington, D.C.). A wide range of local, regional and national resource management issues were raised and out of these emerged several general issue categories. These issue categories were further analyzed and refined as staff worked with the Sanctuary Advisory Council to identify specific resource management issues. These issues and concerns are addressed in the action plans and in the Draft Environmental Impact Statement.

The Draft Environmental Impact Statement (DEIS)

The basic elements of an environmental impact statement include: the purpose and need for the proposed action, a description of alternatives including the proposed action, the affected environment and the environmental consequences of the alternatives (the alternatives analysis). In the case of the CINMS draft management plan, the requirement to prepare a DEIS was triggered by the process of proposing revisions to the terms of designation of the Sanctuary.

When a Federal agency prepares a DEIS, it must first define its study area - a geographic range within which resources, uses and management issues are analyzed. In the fall of 1999, the Sanctuary contracted with Dr. Michael McGinnis to recommend a study area for the management plan review. In preparation for this recommendation, CINMS staff conducted a review of the various components making up the Sanctuary ecosystems, such as the range of species found within the Sanctuary, the distribution of habitats, oceanographic processes,

Figure 5: *CINMS Management Plan Revision Study Area*



and the geographic scope of human threats to Sanctuary resources.

This review revealed that many key species and habitats, as well as important ecosystem processes (e.g., upwelling areas, currents, and gyres) extend beyond the boundaries of the Sanctuary. Given the geographic range of these resources, and the scope of human activities occurring throughout the Santa Barbara Channel, a study area was established in 2000 for the management plan review extending beyond the existing Sanctuary boundaries.[7] Determination of this study area was made in consultation and with the support of the Sanctuary Advisory Council. The study area, which extends from Pt. Sal to Pt. Dume, encompasses portions of all three bioregions of the northern Southern California Bight and includes additional ecosystem qualities and attributes providing support services to Sanctuary resources. (Figure 5).

The Center produced their findings "A Recommended Study Area for the CINMS Management Planning Process: Ecological Linkages in the Marine Ecology from Point Sal to Point Mugu" in January 2000. At the January 20, 2000 Advisory Council meeting, the Sanctuary announced it had selected Tetra Tech, Inc. to develop the DEIS based on the study developed and approved by the Advisory Council. Through the Advisory Council, CINMS has regularly updated the public on the progress and development of the DEIS.

Applying Science, Socioeconomics, and Local Knowledge

Once the study area was defined, CINMS focused its evaluation of the natural resources and human activities associated within this defined area. In addition to input from the general public and the Sanctuary Advisory Council, Sanctuary staff relied on three strategic tools to assist in the development of actions for the revised management plan: science, socioeconomics, and local knowledge.

- ***Science:*** Scientific research and monitoring programs provide information for the Sanctuary to better understand and evaluate the effectiveness of management programs and policies. As a result, science has helped CINMS better measure, understand and predict change in the Sanctuary ecosystem. CINMS has collected data from individual researchers and institutions throughout the region, and, where possible, integrated it into a geographic information system (GIS) to help more clearly identify Sanctuary marine resources, habitats, and physical and geological features.

- ***Socioeconomics:*** Recognizing ecosystem sustainability and economic health are mutually beneficial, CINMS staff considered both the potential negative impacts that may be caused by management restrictions on income-generating activities, net economic user values, and the potential public benefits derived from long-term protection of nationally significant resources. A socioeconomic analysis considering impacts to user groups from proposed actions in this revised management plan is contained in the DEIS (Volume II, Section 4.5).

- ***Local Knowledge:*** CINMS recognizes local citizens' understanding and respect of the regional environment. Many of the community partners involved in the development of this management plan have been in and on the waters of the Sanctuary for up to a half-century and their knowledge can be more extensive than

[7] A similarly sized study area was also developed during the 1980 Sanctuary designation process.

available scientific research. In addition, community voices represent local interests, issues and concerns. As such, the local mariners interviewed in 2000 for a CINMS Ethnographic Data Survey (Kronman 2000a), the general public and the Advisory Council have all provided invaluable information used to develop this revised management plan.

Developing the Action Plans

Action plans are the means by which the NMSP identifies and organizes the wide variety of management tools it employs to manage and protect its marine resources. Action plans allow the NMSP to articulate the programs, projects and regulations it uses to address the resource issues identified for this management plan and to fulfill the purposes and policies of the NMSA. The action plans in this document were developed by the CINMS staff with input from the Advisory Council and the general public. In general, they are designed to address:

- The management issues identified during the management plan review process;
- The goals and objectives of the NMSA;
- Extensive comments, input and ideas from the Sanctuary Advisory Council;
- The scientific, socioeconomic and local knowledge gathered about the status of Sanctuary resources and resource management issues;
- The unique, non-duplicative, and beneficial services CINMS can offer to improve resource management; and
- The need for determining Sanctuary effectiveness over time.

The action plans are in Section III of this document. Section II: The Sanctuary setting, which follows, describes various aspects of the CINMS regional ecosystems and human uses of the Sanctuary.[8] It also provides information on Sanctuary administration and management organization.

[8] For an in-depth analysis of many of these features, see Section 3.0 in the Draft Environmental Impact Statement.