

Member/Alternate

Tourism

Lauri Baker/Monica Baker

Business

Michael Hanrahan/Darren Caesar

Non-Consumptive Recreation

Jim Brye/Eric Kett

Commercial Fishing

Harry Liquornik/Chris Hoeflinger

Recreational Fishing

Merit McCrea/Stephen Roberson

Education

Craig Taylor/Barbara LaCorte

Research

Dr. Robert Warner/Dr. Daniel Brumbaugh

Conservation

Linda Krop/Greg Helms

Public At-Large 1

Jim Knowlton/Avie Guerra

Public At-Large 2

Dr. Matthew Cahn/Matthew Lum

National Marine Fisheries Service

Mark Helvey/Tonya Wick

National Park Service

Russell Galipeau/Gary Davis

U.S. Coast Guard

Lt. Jerrel Russell/John Luzader

Minerals Management Service

Joan Barminski/Dr. Fred Piltz

U.S. Department of Defense

Alex Stone/Walter Schobel

California Department of Fish and Game

Marija Vojkovich/John Ugoretz

California Resources Agency

Brian Baird/Melissa Miller-Henson

California Coastal Commission

Rebecca Roth/Gary Timm

County of Santa Barbara

Dianne Meester/Jackie Campbell

County of Ventura

Lyn Krieger/Jack Peveler

Channel Islands Nat'l Marine Sanctuary

Chris Mobley

Monterey Bay Nat'l Marine Sanctuary

William Douros/Sean Morton

Gulf of the Farallones Nat'l Marine Sanctuary

Maria Brown

Chair

Dr. Matthew Cahn

Vice Chair

Jim Brye

Secretary

Linda Krop

Sanctuary Advisory Council

CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

October 25, 2004

Chris Mobley, Manager
Channel Islands National Marine Sanctuary
113 Harbor Way, Suite 150
Santa Barbara, CA 93109

Re: Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Dear Mr. Mobley:

Thank you for the opportunity to provide comments regarding the ongoing environmental assessment of the Channel Islands National Marine Sanctuary (CINMS or Sanctuary) marine reserves and marine conservation areas. As you know, the Sanctuary Advisory Council (SAC) has been closely involved with the consideration of marine reserves in the Sanctuary since 1999. Most recently, the SAC submitted scoping comments in July, 2003.

The SAC members have carefully reviewed and considered the Staff Preliminary Working Draft Document, and held public discussions on the document at our July and September 2004 meetings. At our September meeting, we received reports from several of our working groups, solicited public input and testimony, and discussed the various components of the draft document and upcoming environmental impact statement (EIS). Finally, the SAC members presented individual comments which were discussed in turn to determine whether they were supported by consensus of the members present.

The list below details the specific comments that the SAC agreed to by consensus of voting representatives present on September 24, 2004. Attachment 1 includes the comments



that were discussed and forwarded for your consideration, but which did not have the full consensus of the SAC members present. Attachment 2 includes the comments submitted by some of the working groups, and Attachment 3 lists the SAC members that voted on the recommendations.

The list of consensus comments is as follows:

Purpose and Need:

- *Use ecosystem based management approach language.*

Alternatives:

- *Characterize alternatives and where they came from;*
- *The “No Project” alternative should be analyzed with current regulatory framework;*
- *List Alternative 2 first (as the one that represents the “preferred alternative” selected by the CA Fish and Game Commission);*
- *Need more complete comparisons between alternatives (e.g., connectivity, habitats, range, etc.);*
- *Recognize that both Alternatives 2 and 3 provide significant rocky reef habitat;*
- *Consider an alternative that includes an extension of the Gull Island reserve beyond the Sanctuary boundary;*
- *Work with fishing working groups to consolidate their mapped alternatives.*

Data and Analysis:

- *Include a cumulative impacts analysis;*
- *Recognize growth in global ocean recreation tourism;*
- *Clarify availability of data outside existing CINMS boundary;*
- *Analyze impacts to endangered and threatened species;*
- *Analyze displaced effort from proposed action and existing regulations;*
- *Address ecotourism effects;*
- *Incorporate and update data;*
- *Include fisheries data comparisons on p.46 for 5 – 10 years.*

General:

- *Strengthen language to improve the rationale for establishing reserves;*
- *Include Sanctuary Education Team matrix adopted previously for the state reserves;*
- *Include all citations;*
- *Include appendix referencing and analyzing effects of other marine reserves.*

Affected Environment:

- *Add research in human use;*
- *Discuss state/federal jurisdictions (add to “regulatory setting”).*

Thank you again for the opportunity to provide input regarding this phase of the environmental review process for marine reserves and marine conservation areas in the Sanctuary. We look forward to providing further comments and recommendations as the process moves forward.

Sincerely,



Dr. Matthew Cahn, Sanctuary Advisory Council Chair

cc: Daniel Basta, Director, National Marine Sanctuary Program
Donald McIsaac, Executive Director, Pacific Fishery Management Council

Attachments:

1. Additional SAC member comments that were not supported by a consensus vote.
2. SAC Working Group comments (Conservation, Commercial and Recreational Fishing, Research, and Education)
3. List of voting seats participating in the September 24, 2004 vote.

Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Attachment 1: comments forwarded for consideration by the Sanctuary Manager, but which did not have the full consensus of the SAC members present at the September 24, 2004 SAC meeting.

Purpose and Need:

- *Overlay jurisdiction over state regulations;*
- *Add to purpose #3 local and transient populations;*
- *Urchin barren language should be removed.*

Alternatives:

- *Extend reserves as current reserves do not adequately protect marine species;*
- *Consider contiguous reserve areas;*
- *Include discussion of the ability of the Sanctuary to manage areas outside boundaries;*
- *Do more maps;*
- *Existing state reserves should be built upon as “anchors”;*
- *Recommend including CEQA phasing plan in the NEPA document;*
- *SC/Gull Island should be extended to deeper waters (supports fishing group), encompasses unique habitat;*
- *NOAA’s National Marine Fisheries Service is going to explore fishing regulations/management tools alternatives.*

Data and Analysis:

- *Fishing stocks unlikely affected by proposed action;*
- *Section 10.2-11. Establishing thresholds of impacts is biased;*
- *Tri-county income average is biased, should do threshold based on state-wide fisheries;*
- *Establish impact thresholds (recognize difference between NEPA impact and local social impacts) – conduct cost/benefit analysis by fishery;*
- *Clarify sources (level of peer-review) for data cited;*
- *Analyze socioeconomic benefits to tourists, non-consumptive users, and ocean recreation;*
- *Note: urchin fishery is now predominantly domestic (pg. 63).*

General:

- *Protecting the whole ecosystem requires protecting deepwater portions as well;*
- *Include financial impacts on fishermen due to other management problems;*
- *Acknowledge and monitor acoustic noise on mammals and fish i.e. – research boats, side-scan sonar.*

Process:

- *Pacific Fishery Management Council should expand authority to create no-take areas;*
- *Add sustainability aspect to ensure healthy environment for fishing and promote healthy fisheries;*
- *Encourage coordination with NOAA fisheries labs;*
- *Reserves should not replace existing fishery management.*

Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Attachment 2a: SAC Conservation Working Group comments

9/8/04

To: Sanctuary Advisory Council

From: Conservation Working Group

Re: CINMS Federal Phase Marine Reserves Options

After discussion at our September 8, 2004 meeting, the Conservation Working Group unanimously approved the following report and recommendations.¹

Background:

The CINMS has released a document outlining its preliminary analysis of the federal phase of CINMS marine reserves, and setting out three alternatives for extending marine protected areas into federal waters of the CINMS. In addition, the Fishing Working Group has suggested two additional alternatives that have varying degrees of support within the fishing community. The three CINMS-presented alternatives were crafted to meet the Sanctuary mandate of “protecting [all] Sanctuary resources”, and would be implemented and managed by CINMS. Both fishing alternatives are intended for review and consideration, but would not be implemented by the CINMS.

All of the alternatives to some extent recognize and incorporate the limitations imposed by the State’s approval of 10 marine reserves and two marine protected areas in CINMS nearshore areas in 2002. These areas serve as “anchors” around which to organize extended MPAs for ease of enforcement and compliance. The exceptions to this are the “footprint” area between Anacapa and Santa Cruz Islands, and the Richardson Rock marine reserve in the extreme west end of the Sanctuary.

The intent of the Conservation Working Group is to advise CINMS regarding the soundness of the initial draft environmental document, and to provide input on the adequacy of the proposed range of marine reserve alternatives.

The alternatives presented by CINMS are (see/insert maps):

¹ The Conservation Working Group is comprised of the following conservation organizations: Conception Coast Project, Environmental Defense Center, Gaviota Coast Conservancy, League of Women Voters of Santa Barbara, Santa Barbara Channelkeeper, Sea Center of the Natural History Museum, Sierra Club, Surfrider Foundation, The Ocean Conservancy, The Otter Project, and the Urban Creeks Council. Members present on 9/8 included: CCP, EDC, LWVSB, SBCK, Sea Center, and TOC.

Alternative #1”: Alternative 1 represents an extension of the smallest, fishing group-supported alternative into federal waters. This Alternative was among those reviewed in the California environmental process as insufficient in area and habitat representation. Alternative 1 is likely to be replaced by a newer fishing group-supported alternative (“Fishing Alternative 2”...see below).

Alternative #2: This alternative represents the completion of the reserve network approved by the State of California in 2002. Approval of this alternative would place about 25% of Sanctuary Waters into marine reserve along with two less-protective marine protected areas at Anacapa and Santa Cruz islands.

Alternative #3: This alternative would extend **all** marine reserves approved by California in 2002 to or near the Sanctuary 6 NM boundary. This alternative provides more area and greater continuity between nearshore and offshore (deeper) habitats. This alternative adds the extension of the Judith Rock, Carrington Point, South Point and Anacapa Island marine reserves.

Alternatives presented by Fishing Interests:

Fishing Alternative 1: This alternative was developed by the Fishing Working Group and is supported as an alternative by a broad coalition of fishing interests. This alternative would evaluate the contribution of **existing** fishery management areas – the Rockfish Conservation Area and the Cowcod Conservation Area -that restrict most bottom-tending fishing gear to aid rebuilding of overfished groundfish species. These areas vary by season, and have and can be expected to be changed at unknown intervals. Proponents want this alternative analyzed by CINMS as part of CINMS’ marine reserves process, but do not want CINMS to implement it; instead, any action would be taken by the Pacific Fishery Management Council. The Rockfish Conservation Area, affecting the Northern Islands (San Miguel, Santa Rosa, Santa Cruz, Anacapa) includes the spatial area that between the depth contour lines of 60 –150 fm during the open season, and 30 – 150 fm during September and October. The Cowcod Conservation Area affects Santa Barbara Island, and prohibits directed groundfishing (with exceptions e.g. Sandabs) in areas greater than 20 fm.

“Fishing Alternative 2”: This alternative, supported by a smaller group of commercial fishermen, is an adjustment of CINMS draft Alternative #2, in which two proposed MPAs – the Harris Point Reserve (San Miguel east) and the Scorpion Point Reserve (Santa Cruz east) - would be excluded, and an area claimed to be roughly “equivalent” would be added outside Sanctuary boundaries in the deeper areas of the Santa Cruz Canyon. This area is somewhat unique in deep benthic continental slope habitat, but also would require significant extension of CINMS spatial jurisdiction in order to be implemented by CINMS (which the proponents do not intend). The excluded areas in “Fishing Alternative 2” appear to be aimed at reducing economic impacts to fishing communities from marine reserves. The areas in federal waters would prohibit ground fishing, but would not affect other types of fishing.

Presumably, both of the Fishing Alternatives would restrict regulatory authority to the PFMC, not the CINMS.

Discussion:

In preparing its environmental document for federal marine reserves, the Sanctuary faced a series of limitations due to the jurisdictional division of the Sanctuary into State and Federal portions. Since the State adopted a series of 10 reserves and two marine protected areas in 2002, federal waters reserves are constrained by these nearshore MPAs in that totally new, non “anchored” reserves would become protected “islands” that would be difficult to enforce and comply with. Furthermore, the lengthy Marine Reserves Working Group process reviewed and refined alternative sites in CINMS for their economic and ecological effects and impacts, further limiting the scope of discretion of CINMS in proposing alternatives. This is why the three CINMS-presented alternatives do not differ greatly in terms of habitat types and amounts incorporated.

Among the CINMS-presented alternatives, a few differences in habitat amounts included stand out: Alternatives #2 and 3 provide significant (7.5 km²) rocky reef habitat in protection compared with Alternative #1 at Richardson Rock, a wild and important area for blue and humpback whales, large marine predators and seabirds, and key abalone restoration populations. Alternative #3 includes 7.5 km² in rocky reef over Alternative #1 at Santa Barbara Island, where rockfish rebuilding is critical, endangered white abalone still persist, rare deepwater kelps exist, and mid- and deep rockfish and lingcod are prolific. Alternative #2 generally includes habitats in these areas significantly greater than Alternative #1, but not as much as Alternative #3.

“Fishing Alternative 1” describes an approach not substantially different than the required analysis of “no project” in which the Sanctuary simply receives the fishery management measures enjoyed by the rest of U.S. waters. The Sanctuary should undertake a thorough analysis of these conditions under the “no project” alternative, reviewing the contributions of existing fishery management – including the current Rockfish and Cowcod Conservation Areas—towards the CINMS’ unique and protective legislative mandate. The Sanctuary should also incorporate the statistics and research of fishery managers, including those that emerged since the establishment of State reserves, into the environmental review document. However, Fishing Alternative 1 does not advance the ecosystem protection goals of the Sanctuary, does not incorporate and protect the full range of habitats and species within the Sanctuary, and does not fulfill the Sanctuary’s promise as a “special ocean place” in America. Inclusion of these conservation areas alongside an alternative that includes significant no-take marine reserves is an option.

“Fishing Alternative 2” under-protects Sanctuary resources in critical areas, omitting protection in critical north-side Island habitats which will undermine larval distribution and connectivity between reserves. This alternative substitutes near-term economic impact avoidance for potential long-term fishery enhancement. However, the suggestion of including deep, habitats along the unique Santa Cruz Canyon structure is an intriguing one. Although the inclusion of the area into the Sanctuary for protection as a Sanctuary marine reserve would pose potential administrative problems for the Sanctuary, from a conservation standpoint, it would be an ideal complement area to one of the Sanctuary-presented Alternatives. The fishing working group should be complemented on identifying it.

Recommendation:

The Co-Chairs recommend that CWG adopt a recommendation that CINMS extend itself to protect and set-aside large, contiguous portions of the CINMS for the benefit of current and future generations. The Sanctuary should certainly receive additional protection over and above non-Sanctuary ocean areas, and should act strongly to fulfill its resource obligations under Statute. Therefore, we recommend that the CWG transmit a recommendation to CINMS that:

- 1) Appreciates and encourages the process of considering federal phase marine reserves;
- 2) Encourages the Sanctuary to incorporate, evaluate and respond to recent measures in the area of fishery management, while strongly supporting its own, distinct needs and purposes; and
- 3) Supports the consideration of Alternative #3, and requests an analysis of a new Alternative 3b that would include an extension of the Santa Cruz Canyon/Gull Island reserve to encompass more of this unique habitat.

Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Attachment 2b: SAC Commercial and Recreational Fishing working groups comments

9/12/04

To: Sanctuary Advisory Council

From: Recreational Fishing Group Chair Merit McCrea

Re: CINMS PDEIS Project Alternative supported by Commercial and Recreational Fishing Working Groups (CWG & RWG).

Background:

After several joint meetings of the CWG and RWG and attendant between meeting communications broad support among the combined fishing community was found for a Fisheries Supported Project Alternative that was crafted by Mr. Chris Hoeflinger and presented to the combined working groups. This, dated June 25, 2004 follows:

Proposal of June 25, 2004

Proposal For Fishery Supported MPA alternative in Channel Islands National Marine Sanctuary (CINMS) MPA Process.

The Fishing community has been working to develop an alternative for the federal phase of CINMS' MPA Environmental Impact Statement (EIS) document. The primary reason to include a fishery supported alternative in the range of alternatives is to insure rigorous scientific analysis of the conservation benefits supplied by current fishery management measures and the contribution these measures offer towards the goals of the CINMS MPA project.

According to the Peer Review Panel, tasked by the California Department of Fish and Game to peer review the CINMS MPA project (state and federal phase), the proposed project did not factor into its analyses, the conservation benefits of existing fishery management measures including the Cowcod Conservation and Rockfish Conservation Areas. Due to this fact, the fishing community is developing an alternative for the EIS that includes the conservation benefits of current fishery management measures.

The National Environmental Policy Act (NEPA) requires that any project proposed include a full range of reasonable alternatives. The CINMS MPA project (federal phase), currently contains a range of alternatives that include:

- a. Three versions of the same alternative proposed and prepared by the CINMS.
- b. A no-project alternative that was developed before the Cowcod Conservation Area (CCA) and the Rockfish Conservation Area (RCA) were implemented. Theoretically the no-project alternative represents regulation at a point in time when fishing was allowed inside the CCA and the RCA.

Discussion

The National Oceanic and Atmospheric Administration created the National MPA Center in collaboration with the Department of the Interior. In January 2004, the National Marine Protected Areas Center (NMPAC) published a paper titled A 'Classification System For MPAs in the United States'. The purpose of this document was "To develop a functional classification system for MPAs that provide agencies and stakeholders with a simple and objective means to understand, describe and evaluate the many different types of MPAs found in the United States."

The system "uses six objective criteria to describe an MPA, rather than relying on formal programmatic names or popular terminology that may be inconsistent or misleading." This classification system is "derived from a number of existing approaches used by the International Union for the Conservation of Nature (IUCN), state, non-governmental organizations, and others to describe MPAs."

The primary classification criteria are the MPA's:

1. Primary conservation goal
2. Level of protection
3. Permanence of protection
4. Constancy of protection
5. Scale of protection
6. Allowable extractive activities

"These six characteristics should help overcome several long-standing obstacles to our collective understanding and effective use of MPAs. Consequently, the classification system is intended to:"

1. Provide a straightforward common language about MPAs for public policy discussions.
2. Clarify confusion over the wide variety of types and terms.
3. Allow meaningful assessments of how we currently use different types of MPAs in the U.S.
4. Provide a way to assess the likely conservation impacts of existing and proposed MPAs

5. Inform the effort to develop a framework for an effective national system of MPAs.

The local fishing groups working to develop a fishery supported alternative for the CINMS project believe that, both the Cowcod Conservation area and the Rockfish Conservation Area are consistent with the NMPAC and the IUCN criteria defining a MPA. For information on the NMPAC's classification system, contact the MPA Center at: MPACenterConnection@willamette.nos.noaa.gov

Proposal

1. Request that the Pacific Fishery Management Council (PFMC) rename the Cow cod Conservation Area, the Cowcod Conservation Marine Protected Area (CCMPA). The PFMC shall retain the same authority and flexibility to manage the CCMPA as it currently uses to manage the CCA.

2. Request that the PFMC rename the Rockfish Conservation Area, the Rockfish Conservation Marine Protected Area (RCMPA) The PFMC shall retain the same authority and flexibility to manage the RCMPA as it currently uses to manage the RCA.

3. Utilize the CCMPA the RCMPA and the enacted state phase of the CINMS MPA project as the fishery supported alternative for the EIS in the CIMNS MPA project. This action will provide the basis for analyses in the NEPA process to determine if the existing closure provides the conservation objectives of the CINMS MPA project. If it is determined that the objectives of the project are not achieved by the fishery supported alternative, and that the unachieved objectives are reasonable, the stakeholders can work with the PFMC and the CINMS to develop measures that bridge any gaps.

4. Request that the PFMC, NOAA Fisheries and the CINMS support including The fishery alternative into the NEPA EIS range of alternatives for the CINMS MPA project (federal phase)

5. Request that the NEPA EIS analysis include a study of existing fishery management measure and their contribution towards the conservation goal of the CINMS MPA process (federal phase).

Please comment on this proposal.

Chris H

The following discussion outlines the issues of concern as I heard them put forward at the various meetings as well as via group email among the constituents. Also included are this author's assessment of the ramifications of the proposal and of the fundamental concerns that are evident within the fishing community. There is a secondary Project Alternative included. It gained a good deal of support before being set aside in order to gain the nearly unanimous support that Mr. Chris Hoeflinger's has among the recreational and commercial fishing community.

Discussion:

The Fisheries Supported Project Alternative (Mr. Chris Hoeflinger) is arguably different than the “No Project” alternative in that it does “consider a network of marine reserves within (CINMS)” although that consideration is of those previously established within state waters. It also considers the impact of defacto marine reserves created by the Rockfish Conservation and Cowcod Conservation areas both where they extend within CINMS and for the purposes of “cumulative impact,” their impacts overall. Impacts include not only the effects of not allowing harvest activities within the areas but the displacement of harvest activities into other areas and other fisheries.

In addition under item #3 of the Fisheries Supported Project Alternative there is an allowance for modification such that if it is determined that this proposal is not different than the No Project alternative (e.g. because it has no new spatial component) modifications may be made. As this writer understands it, one of the main advantages of not delineating areas within the proposal at an earlier stage (e.g. within the proposal) is that it gives the opportunity to use the resources of the Council and NOAA Fisheries to build a spatial design that complements existing regulation and planned regulation more fully.

Certain constituencies are so opposed to NOAA Sanctuaries influencing fisheries management that they cannot support any exclusion of fishers from an area at the behest of the Sanctuary rather than existing fisheries management authority and expertise.

It is important to note that with the exception of the Harris Point area, the areas being considered under other project alternatives for the exclusion of fisheries are not particularly objectionable to fishers but that the CINMS having the authority to close them to fishers is.

As a point of perspective fishers nearly unanimously object to the limiting of their access to fish where a clear net benefit to them is not scientifically supported. Without that benefit to fishers the issue degenerates to a user group conflict where two sets of stakeholders (fishers and anti fishing interests) want the same turf for their unimpeded benefit. These same kinds of user group issues exist between fishers themselves, most notably recreational fishers and commercial fishers. Although it may be in the greater public interest for one group to have precedence over another with respect to a given area it only stands to reason that the displaced group will not support their being displaced.

Regarding the benefits of MPAs to fishers:

There exists a large subset of the fishing community that could support a spatial design of marine protected areas very similar to the “Preferred Alternative.” (PA) (The secondary alternative that gained considerable support initially) Spatially this design looks like the PA except that:

1. The area of the PA north of the Harris Point (San Miguel) state MPA and the Cavern Point (Santa Cruz) state MPA would not be included

2. Additional area commensurate to the sum of those two areas would be added to cover federal waters south of the Gull Island (Santa Cruz) state MPA over the environmentally unique Santa Cruz Canyon.
3. The fishing of migratory fishes with hook and line gear and spear fishing would be allowed within these new MPAs where bycatch of sedentary species is unlikely (subject to general fishing regs.).
4. The authority under which these new MPAs are established and regulated remains with NOAA fisheries and the Council (or the CA DFG as applicable).

The following is with respect to the benefits that this subset of fishers hopes to realize and the views of fishers with respect to the fisheries benefits of permanent spatially based fisheries exclusion areas:

1. Fishers in support of the establishment of the secondary fishery supported alternative agreed that there was benefit to having complementary MPA areas in the deeper federal waters of CINMS. This would allow MSP levels of organisms that are most likely to benefit from a spatial exclusion of fishing effort to exist. These organisms are sedentary, non-migratory species with small home ranges. This would allow managers and other scientists to have a reference ecosystem to measure otherwise similar yet harvested areas against. (Fishers feel that the Cow Cod Conservation area will ultimately function in this manner.)
2. Fishing user groups that oppose net fishing due to by catch and habitat “damage” issues would make a gain in that regard (damage is in quotes in the sense of fair play. Where similar “damage” occurs in the terrestrial environments we accept the conversion of wild land to agricultural land as a necessity and set aside some areas as wild lands. We are not nearly as forgiving of others their trespasses, e.g. rain forests, as we are of our own e.g. California’s Central Valley vernal wetlands and marshes. It should not be lost on conservation interests that it was recreational hunters that managed to preserve the few most valuable wetlands there that remain of vast flood plains that once existed.)
3. Fishers would have the benefit of having input as to the citing of and regulations within MPAs in the federal waters so as to create the greatest benefit while minimizing the cost to fishers in lost fishing grounds. (It should not be lost on other stakeholders that fishers, especially commercial fishers and CPFV operators, have vastly more experience within the environs of the CINMS than any other stakeholder groups. They arguably have more at stake as well.)
4. Fishers consider the net benefits of spill over largely unproven. Hypothetically if a harvested population were well managed at over ½ MSP then as the population built to greater than its initial level within an MPA more energy would go to physiological maintenance and less would be available for production. Production (reproduction

and growth) precedes spillover. The presumption that leads to spillover being greater than current production is that fished species are generally overfished. It is inherently distasteful to fishers that permanent no fishing areas should exist to populate areas outside of MPAs so that areas outside of MPAs can be managed in an overfished state on a continuing basis.

5. Fishers feel that trophic issues and other challenges generally complicate fisheries management beyond comprehension. Hypothetically, if any one trophic level is fished to MSY then all others over it are also, (actually shifts top of MSP lower by 50% and so OY/MSY commensurately). This is further confounded in that many organisms feed across several trophic levels and those change with the maturity/size of the critter. Additionally seasonal and decadal variation in habitat parameters, positive feedback loops between competitive species (unstable equilibria) and other issues make stock assessment and predictive management all the more challenging. Fishers understand this in the following way: Fished species populations “cycle” naturally with large swings that are difficult to predict. To fishers and managers alike the count often and guess conservatively method of stock assessment looks most attractive. Although great strides are being taken, managers today are still struggling to find resources and techniques for counting fish hidden in the murky depths. Managers are still largely limited to guessing by measuring how difficult critters are to catch from season to season. Correspondingly, a large proportion of fishers support the idea of a benefit of MPAs being a source of seed stock in the case of a fisheries disaster.

This writer feels that this Secondary Fishery Supported Project Alternative may lack sufficient support currently due to the consolidation of support behind the Primary Fishery Supported Project Alternative. Major supporters included UASC, local CPFV operators, spear fishers and a constituency of commercial fishers headed by Mr. Chris Miller. At one time this proposal appeared to have majority support.

Although fishers support that there are some benefits of MPAs as a whole they are skeptical that the benefits of additional marine reserves in the CINMS will outweigh the costs to fishers. Most importantly they don't want CINMS to have fisheries regulating authority. This is especially true where the Sanctuary acts as an entitled stake holder or on behalf of other stakeholders and proposes that the benefit to fishers supports setting more area into reserves than it might otherwise be able set aside without fisher's support. It is clear that fishers prefer any access limiting regulatory actions undertaken for the benefit of fishers be undertaken by the agencies whose mission is more directed toward providing benefit to fishers.

It is of the greatest importance to fishers as a whole that whatever fisheries access restricting actions are ultimately undertaken be undertaken under the authority of the agencies where that authority currently resides. Fishers strongly object to CINMS acquiring the authority to restrict fisheries access within the Sanctuary. Fishers feel that such authority should remain with NOAA Fisheries and its PFMC within Federal Waters and with the California Department of Fish and Game (CA DFG) within state waters. In addition all currently proposed Project Alternatives that delineate new spatial components (1,2,3,3b, 2ndary FSPA) do have portions that fall outside of

the CINMS boundary. Where anti fishing stake holders seek to invoke their equal rights as to the shared ownership of the public domain in order to set aside some marine areas free of harvest activities fishers are adamant that those agencies that have the greatest fisheries experience and resources remain the ones that are to have the responsibility to coordinate sighting, regulation and enforcement. It is to these agencies that the responsibility to deal with the impacts of fisheries exclusion within CINMS will fall regardless of which agency closes waters to fishers. These impacts include overcapitalization within fisheries in regions where areas are closed, displaced effort, and disenfranchised fishers.

Fishers have taken some painful harvest restrictions and spatial closures at the hands of the existing fisheries management recently. Fishers are not eager for other agencies that they feel have little expertise and only local authority to have the ability to muddle in fisheries management. Before access to additional areas is restricted fishers want full consideration of the larger scale actions already taken in that regard (Cow Cod and Rockfish Conservation Areas). This writer's perspective is that fishers do not perceive the Marine Reserve issue as a natural resource conservation issue. Fishers see the Marine Reserve issue as a user group conflict between pro-sustainable consumptive use stakeholders and anti-consumptive use stakeholders.

Merit McCrea, Recreational Fishing Representative, SAC

Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Attachment 2c: SAC Research Activities Panel Comments

**Research Activities Panel
A Working Group of the Channel Islands National Marine Sanctuary Advisory Council**

Comments on the Staff Preliminary Working Draft Document for Consideration of a Network of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Compiled by Satie Airame (CINMS) and Robert Warner (RAP Chair) from a meeting of the RAP on September 13, 2004.

Background: To guide their official comments to the Draft Document (to be prepared at the September 24th meeting), the SAC requested input from various working groups. The Research Activities Panel held their inaugural meeting on September 13, 2004 at the Bren School of Environmental Science and Management at UCSB (list of attendees is attached). The principal agenda item was discussion and comment on the Draft Document. We were specifically asked to comment on the purpose and need for the proposed action, the range of alternatives, and the analyses, methodologies, and data sources. In addition to comments made at the meeting, we were provided with written comments from RAP member James Lindholm (Pfleger Institute of Environmental Research). A draft of this document was subsequently provided to the RAP through its listserv, and further comments were incorporated.

General comment: While the Draft Document must focus on the consideration of establishment of a marine reserve network in Federal waters, it is based on previous documents (from CEQA, MRWG, and the MRWG SAP) that analyzed a network that included both State and Federal waters. This latter analysis is appropriate because protection was sought for portions of all the habitats that occur within the CINMS, and those habitats are not distributed equally between the State waters (primarily shallow habitats) and Federal waters (primarily deep habitats). Thus we encourage continued analysis and discussion of marine reserve network function and design based on concepts that include consideration of the existing reserves in State waters. In addition, because many marine organisms may move between habitats over the course of their lives, we urge special consideration of designs that place the deeper-water Federal portions of the reserves adjacent to the State reserves.

The other legacy from the process leading to the establishment of the State marine reserves is a set of justifications and design considerations based on maintaining sustainable fisheries. Since the fisheries objective is no longer part of the Purpose for Taking Action (Section 1.3), these

considerations and justifications may be inappropriate in the Draft Document. If anything, the arguments should be set apart as additional considerations rather than central justifications.

Specific comments, by section:

Section 1.2 Need for Action

This section would benefit by stating the mandates of the NMSA first, because this would then frame the arguments for action. There is a real need in this section to be clear about what reserves can accomplish (e.g., removing fishing impacts, stopping some forms of habitat alteration) and what they cannot. While reserve establishment will likely aid the CINMS in working toward its goal of resource protection, it will not solve all problems.

It is important to note that 100% of the Sanctuary is utilized by human activities. Define what is allowed within the Sanctuary. Based on the mandate of the Sanctuary, is it clear that some areas should be free of consumptive activities? If so, state this.

Specific examples in this section are from the shallow subtidal regions not included in the Federal waters. In this section, it is important to emphasize the need for action in federal waters. For some species, there is a strong link between shallow subtidal and deeper waters; also, some patterns in the subtidal are likely to be seen in deeper waters under the same influences. Some species, including vermilion rockfish, cowcod, bocaccio, lobster and sea cucumber, use both shallow and deep waters.

Our lack of knowledge about particular areas may also justify protection. For example, deeper areas within the CINMS are only beginning to be explored, and are yielding new information at a high rate. Yet these areas are threatened by human activities. From a research prospective, there is a need to set aside some of these areas as reference or baseline sites. For example, there are new species of deep-water coral that have recently been discovered and described, e.g., *Antipathes dendroschristos*. Two new species (or more) of black coral were discovered on the Footprint during submarine surveys conducted by Milton Love and Mary Yoklavich. These species are vulnerable to trawling. Placing a MPA in an area to protect deep-water corals will enable scientists to study these rare species.

“Marine Reserves,” “Marine Conservation Areas,” and “ecosystem integrity” should be defined in the Need for Action. Replace habitat “damage” and “destruction” with “alteration” when used in a general context. When referring to a specific community or organism, terms such as damage or destruction may be more appropriate.

Section 1.3 Purpose for taking action

The bulleted points are generally clear in meaning. Without specific targets, however, the use of terms such as “restore,” “enhance” and “maintain” are somewhat vague. Replace the concepts “restore and enhance” with the concept of “allowing recovery” to achieve a “more natural age distribution.” Note that the size of MPAs will affect species differently so that some species will be protected fully and others will not be.

Remember that reserves may slow or reverse changes that are occurring in the CINMS, but they cannot fully restore habitats that have been altered due to large-scale factors such as global warming or non point-source pollution. That said, a major effect of reserves may be to provide resilience to marine populations by simply maintaining higher abundances.

It is not clear that “complement” is the correct term in Bullet 5. This can be made much more explicit: the Federal portion of the reserves contributes to the existing network by protecting habitat that is rare in State waters and thus not included at sufficient levels in the State reserves.

Either here or after the presentation of alternatives, the Sanctuary should provide a timeline for actions to take place after reserve establishment (e.g., timeline for monitoring, evaluation, and revision).

Section 2.2.1 Federal Fishery Management

While the purposes outlined in Section 1.3 do not include a goal of increasing yields, there needs to be some consideration of the proposed reserves in the context of existing fishing regulations. There are three issues:

1. Given the small area of the proposed reserves (in any alternative) relative to the areas covered by listed stocks managed by the PFMC, the proposal is unlikely to have a measurable effect on the stocks as a whole. Equally, displacement of effort would be minor relative to the overall area managed by the PFMC.
2. If the area closures imposed by the PFMC are effective, the subsequent increases in production could result in increased recruitment rates of protected species into the proposed reserves, potentially reducing time to recovery.
3. Even if they prove effective for fisheries management, the area closures imposed by the PFMC do not achieve the purposes outlined in Section 1.3 of the Draft Document. This is because not all species are protected, nor is the closure necessarily long-term. The closures are not permanent and their definitions (and boundaries) change frequently, with the potential of changing at every PFMC meeting, and even between meetings.

Additionally, in most cases there exist major spatial gaps of unprotected habitat between where the existing State reserves end and the year-round PFMC closures begin. As mentioned above, adjacency to existing shallow-water reserves should be a major consideration in the design of the portions in deeper Federal waters. We note that many rockfishes that are intended to be protected by the PFMC closures are found in depths that are shallower than 60 fathoms, and thus subject to exploitation.

The Draft Document should include a map of the PFMC closure areas, including details on temporal closures. Include the PFMC estimated time of recovery of the populations that are being protected.

Section 2.2.3.3. Other Marine Zoning

Describe the extensive history of marine zoning by the CF&GC and PFMC. Emphasize the difference between the goals of maintaining a population to have maximum harvest for fisheries vs. protecting a population under more natural conditions. Emphasize the timeline (permanence) of Sanctuary MPAs.

The paragraph about predator/urchin/kelp relationships on page 11 is out of place, in that this section is intended to describe what zoning already exists within the CINMS. Wherever this interaction is eventually described we caution that the abundance relationships are compelling correlations, but there is no direct evidence that predation by large lobsters caused urchin populations to decline. One should err on side of caution in terms of assigning mechanisms.

Section 3.1.1 Marine Reserves: An Ecosystem Management Tool

We stress that reserves are an “ecosystem-based management tool” rather than “ecosystem management.”

The document asserts that marine reserves “cannot succeed in the absence of complementary action.” However, this is not necessarily true. There are “scorched earth” models that indicate that, in some cases, well-designed reserves can provide effective management in the absence of other types of management. We do not recommend the use of these models, and note that reserves in general should not replace traditional management for sustainable fisheries.

Section 3.2 Description of Alternatives

In the note to reviewer, the document invites the reader to comment on other federal and state agencies regulations. This is not appropriate and may not be legal.

It is important to provide a full description describe how these alternatives were developed. Include the process that was used to come up with the alternatives, and provide the basis for the differences between the alternatives. We understand that the Fishing Working Group may provide a substitute for Alternative 1, and the same suggestions apply: how was the fishing alternative created?

The document refers to reserves in State waters and the alternatives in the CEQA document, but the proposal is vague on what is actually being proposed. Clarify what already exists. Describe how the State reserves are proposed to be incorporated into the Federal alternatives. It is certainly appropriate to discuss the alternatives in the context of the full network, including the existing State reserves. From a scientific perspective it would be most appropriate to propose overlapping jurisdiction in Federal and State waters so that the CINMS reserves are continuous areas including intertidal, shallow and deep subtidal habitats. As mentioned above, any gaps between the reserves (that is, if the Federal reserves do not abut the State reserves) would defeat the purpose of protecting continuous habitat from shallow to deep water. Gaps create some possible barriers to movement and reduce the number of species of interest that are likely to be protected within the MPA. The representative from the Department of the Interior (Kevin

Lafferty) recommended that Federal reserves should overlap State reserves for consistency and continuity.

Some RAP members suggested revising the order of the alternatives so that the former preferred alternative (proposed project) is the first alternative. Describe the history of the process leading to the CEQA proposed project and the state decision. As mentioned above, the design criteria for each alternative should be described. Describe why particular areas were included or excluded from the alternative.

For clarity, we recommend including a map that shows all three alternatives, with the differences highlighted. These differences between alternatives could also be summarized in a table. Evaluate the differences between alternatives in terms of the same set of (ecological and socioeconomic) criteria. The design and evaluation should be based on habitats rather than on species of interest. Note that since the species of interest use all of the different habitats in the Sanctuary, protecting all of the habitats should protect the species as well.

If species-specific information is to be used in justifying alternative sizes and locations, there is some information on home range sizes for kelp bass, some rockfish, and California sheephead in the Channel Islands, and lingcod in Alaska. However, there is very little reliable information on home range sizes for other species of interest.

All alternatives should either be squared off inside the Sanctuary boundary, meet the Sanctuary boundary or be squared off outside the Sanctuary boundary. The RAP recommended that the boundaries should meet the Sanctuary boundary and the PFMC should be given an option to square the boundaries off outside the Sanctuary.

The RAP asked what would happen if the Sanctuary boundary expanded through the management plan process and the boundaries of the new reserves meet the old Sanctuary boundary. In that case, there would be an awkward boundary of reserves for no apparent reason. The RAP recommends a contingency clause in case the Sanctuary boundary expands, to square off reserves at line of latitude or longitude near the old Sanctuary boundary that is consistent with the goals of the reserve and relatively simple to enforce.

The text should describe the tables that are available for comparison of alternatives.

For biologically defined habitats (e.g., kelp), information used should be a composite rather than a single year.

Table 3.7. The total amount and percent of each habitat type is a percentage of each of the habitat types within the entire sanctuary. Clarify the study area in the caption.

The NEPA needs a cumulative impact statement. Potential impacts, such as LNG, mariculture, oil and gas, fiber optic cables, etc, should be described.

Section 4.1 Ecological Setting

In first paragraph, indicate that while the Federal action will not affect the area set aside of some habitats (such as kelp forest and eelgrass), consideration of the overall network included all habitats. Clarify that the majority of deep-water habitat is included in Federal waters, not the State waters. Also clarify that the transition zone is not a distinct biogeographic region, but a transition area between two distinct biogeographic regions, the Californian and the Oregonian.

Because of the location of the Federal portion of the proposed reserves, the RAP recommends a more comprehensive description of deep-water benthic habitats, including high relief, low relief and boulder communities. Include descriptions of canyon habitats, pinnacle habitats, and seep habitats (freshwater and methane seeps). RAP member Donna Schroeder can aid in developing descriptions of these habitats. Also contact RAP member Jim Allen, who might have some additional information on sediments and deep-water habitats from Bight '98 and '03 surveys.

Provide a more comprehensive description of water column habitats, including upwelling zones. Indicate the importance of small pelagic fish as prey for seabirds and marine mammals.

Section 4.1.3 Plants and Animals

It would be helpful in this section to include a list of species of interest, highlighting those that are endangered and threatened.

Note that plankton are not always the basis of the food web. Kelp and other macroalgae may form the basis of the food web in some marine ecosystems.

Identify why certain invertebrates were “selected,” and describe these as “macroinvertebrates.” Include descriptions of habitat-forming invertebrates such as deepwater corals and gorgonians. Highlight white abalone as an endangered mollusk.

Section 4.2.3 Research Activities

Categories of research projects (bulleted) are confusing. Delete “intramural,” “extramural” and “directed.” For this draft, it is essential to describe the current deepwater monitoring projects, mention the nearshore monitoring programs, and reference the Abeles *et al.* summary of monitoring programs.

Section 5.1 Ecological and Socioeconomic Effects

The statement about potential congestion may be overstated for Federal waters. Displacement of fishing effort is likely to be less in federal waters than in nearshore areas already zoned with State reserves. Consult recent paper on reserves by Halpern et al. (Ecological Applications 14: 1248–1256) that discusses the contrasting effects of displacement and export.

The interpretation of ecological and socioeconomic effects depends on the goals for the project. Ecological changes may be interpreted as valuable or not, depending on the goal. For example, if populations grow to carrying capacity, the growth rate decreases by definition. For conservation, a population at carrying capacity may be more valuable than a depleted population. For fisheries, a population that is somewhat depleted will tend to have faster rates of growth and production, which are valued by managers and fishers.

Include a more comprehensive description of consumptive activities that occur in Federal waters. There is likely little kayaking, diving, or island sightseeing in federal waters.

Table 5.1. Ecological consequences: This table needs to be revised. Explain the ecological effects of reserves, or change the term “effects” to “goals” or “levels of protection”. More detail is needed about the expected effects on the local ecosystem.

The RAP recommends linking Table 5.1 to the purpose statement. List each purpose and identify, as subsections, the smallest logical unit within each purpose statement. Then use this table to distinguish among the effects of the alternatives. For example:

Purpose	Alt 1	Alt 2	Alt 3
All biogeographic regions represented			
Habitats protected from extractive use: a. sand (100-200 m) b. rock (100-200 m) c. sand (>200 m) d. rock (>200 m) e. deep water corals f. canyon g. pinnacles	Amount of each habitat	Amount of each habitat	Amount of each habitat
Species of interest a. seabirds b. white abalone	Increase foraging habitat Already protected Reduce potential poaching	Increase foraging habitat Already protected Reduce potential poaching	Increase foraging habitat Already protected Reduce potential poaching
MPAs for research	+	+	+
MPAs for education	+	+	+
Amount added to existing state MPAs	Area	Area	Area

Each of the alternatives contains high quality habitat, topographic features, and the overlapping pelagic assemblages. The RAP does not recommend that the level of fishing pressure should be used to determine sites that can be “restored” (high fishing) vs. “protected” (low fishing).

Finally, it would be of value to add a summary table containing statistics, such as the size of Federal reserves and the average distance between them.

Section 5.1.1. Network Connectivity

The RAP suggests revising this section, by eliminating speculation about transport of larvae and removing the suggested distinctions between Alternatives 1, 2, and 3. Instead, include the range of sizes of the reserves and the mean, minimum, and maximum distances between reserves. Place the distances into perspective by comparing these to estimated dispersal distances identified by Kinlan and Gaines (2003), Palumbi (2003), and Shanks (2003). All the alternatives form networks that fall within the general ranges of dispersal identified for some adults (of the species of interest) and many larvae. Some species of interest will be too sedentary to move between reserves.

The description of surface currents in the CINMS region needs some revision. Please consult with Libe Washburn at UCSB to capture the proper detail for this section.

Section 8.1.2. Commercial harvest

Data on red urchins are available from the CINP Kelp Forest Monitoring Program. Harvestable-sized red urchins apparently have declined in fished areas relative to nonfished reserve sites (Anacapa Island Natural Area). However, on p. 10, a case (Lafferty and Behrens) was cited where purple urchin numbers decreased in the Anacapa Island Natural Area because of predation by large lobsters. This apparent discrepancy needs to be resolved. Note that fisheries target red urchins, not purple urchins.

The idea that predators such as spiny lobsters and sheephead regulate urchins, which in turn regulate kelp, is still a hypothesis, based on correlations only. This mechanism can be strongly suggested, but should not be stated as a fact. Kevin Lafferty, who reviewed and summarized data from the Kelp Forest Monitoring Program, suggested that in fact the Anacapa Island Natural Area does provide an experimental manipulation. The observation of differences in abundances of successive trophic levels inside and outside the marine reserve may reveal mechanisms and may be more definitive than correlation alone. Contact Kevin Lafferty for advice on how to describe the study. (This idea is also discussed in Section 10.1.5, Indirect Effects, and should be tempered there in similar fashion.)

During the last 20 years, each kelp forest site used in the CINP Kelp Forest Monitoring Program became an urchin barren at some time, except two that were located in the Anacapa Island Natural Area (a marine reserve). On the mainland, most of the kelp declined following the 1957-1958 El Nino, except the Barn Kelp Bed in northern San Diego County. This is a similar pattern over a similar time span, but all the sites were fished. By the late 1970s most kelp beds had reestablished, but in 1981 the Barn Kelp Bed disappeared (for undocumented reasons). Thus there is a suggestion that large-scale physical processes drive some of the patterns seen in the kelp forests at the islands. The recovery of kelp there seems to be associated with the prevailing northwesterlies, absence of El Nino, and the emergence of the cool water phase of the PDO.

Last year, kelp recovered dramatically, especially on the north side of SCI. Kevin Lafferty commented that two sites at Anacapa Island have had very different responses to physical factors, depending on whether or not the sites were fished. It appears that both local (e.g., fishing) and large-scale processes influence patterns of kelp loss.

Where possible, distinguish results that affect a particular fishery from results that affect ecological communities. Highlight cases where general results might not apply to specific fishery. In some cases, more up to date information is available on certain species (e.g., California sheephead, contact Jenn Caselle).

Section 8.2.2. Impacts of fishing gear on habitats

Title of section should be, "Impacts of Fishing Gear on Seafloor Habitats," because that is specifically what this section discusses.

James Lindholm recommends replacing the first sentence at the bottom of page 75 with the following:

"Mobile fishing gear (such as beam and otter trawls and scallop dredges) reduces seafloor habitat complexity through the removal of attached and emergent fauna that provide structure (e.g., erect sponges and burrowing anemones), the removal of structure-building megafauna that produce pits and burrows (e.g., crabs and fish), and the smoothing of bedforms (e.g., sand waves; Auster et al. 1996)."

He also recommends replacing the last sentence on page 75 with the following: "The effect of mobile gear on the seafloor is a function of the severity of the impact (e.g., the type of gear), the intensity of the impact (e.g., the amount of effort), the spatial distribution of the fishing effort, as well as the particular habitat seafloor habitat being affected."

The assertion (p. 76) that static fishing gear, once lost, are capable of "catching and killing lobster for months" should be reviewed in light of local fishing practices using destruct clips.

Section 9.2 The Channel Islands reserves process

Please refer to the general comments at the beginning of this document. The discussion of ecological criteria was based on the CEQA and MRWG, which shared a goal for sustainable fisheries. Here, the discussion must be revised to reflect the Sanctuary's focus on conservation, research, and education. There may be some exceptions when specific examples from fisheries are used to estimate how much should be set aside to protect biodiversity in general. Otherwise the sustainable fisheries models are not relevant. On the other hand, the efficacy of reserves must be discussed in the context of the complete network. While some habitats or species may not be found in the Federal portion, it is still critical to discuss the protected area as a whole. In fact, the proposed Federal areas provide important habitats that are not fully represented in the State waters.

Section 9.2.13. Site monitoring

The RAP will be assessing the CINMS reserves monitoring plan at its next meeting, but a few points are in order here. It is necessary to remember that areas outside reserves are not true controls, in the sense that they are areas unaffected by reserve establishment. The most informative monitoring designs will include sufficient data on conditions existing before reserve establishment, will be able to track changes through time inside and outside of reserves, and will have successive reference sites located at increasing distances from reserves.

Section 9.4 Biogeographic Description of State Reserves

Note that Section 9.4.4, Footprint Marine Reserve, is included in this section but is not in fact a State Reserve.

Section 10. Ecological and Socioeconomic Analyses

The section on local ecological impacts needs some rewording to clarify that many of the results stated were the average over many studies. For example, the number of species in each sample did not increase by 30%. Halpern and Warner (2002), Palumbi (2003), and Micheli et al. (2004) provide a more detailed analysis of the Halpern (2003) data, including observations of what types of species actually decline after reserve establishment.

Evaluation of ecological effects of different alternatives may be difficult because displacement may cause the fishing effort outside the reserve to increase, potentially reducing targeted biomass relative to non-fished areas. Alternatively, targeted biomass outside the reserve may increase due to export from protected areas. The contrasting effects of reserves (export of stock and displacement of fishing pressure) can be studied with proper before-after studies. For example, Halpern et al. (2004) attempted to distinguish between cases in which fishing pressure outside reserves depressed populations vs. cases in which populations inside and outside of reserves both increased (due, presumably, to an export effect). In the cases reviewed, most differences were due to differential increases in both reserve and non-reserve areas, suggesting that displaced effort did not lead to lowered populations outside of reserves.

In discussions of the Anacapa Island Natural Area, the area inside should be described as “non-fished” and the area outside should be described as “fished.” It would be helpful to reference data from the Anacapa Island Natural Area from Caselle et al. (2004), a chapter in a recent publication by Monterey Bay National Marine Sanctuary.

Among the purposes outlined in Section 1.3 was that reserves should “provide, for research and education, undisturbed reference areas that include the full spectrum of Sanctuary habitats where local populations exhibit a more natural abundance, density, diversity and age structure.” To that end, it would be helpful to include in the description of each Alternative a discussion of the research questions that might be addressed. Clearly it will be impossible to list or indeed anticipate all the research questions that might be asked, but a preliminary list of primary questions would be helpful.

Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Attachment 2d: SAC Sanctuary Education Team Comments

SAC meeting: 9/24/2004

SET's comments on the "Staff preliminary Working Draft Document for Consideration of a Network of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary."

SET's main comment is that the document does not contain a proposed action for education and outreach. SET would like to re-submit the Marine Reserves Science Education Matrix that was adopted in May 2003 to serve as the blueprint for priorities and action items for CINMS marine reserve education and outreach material and products and distribution methods. The matrix was developed to address the education and outreach needs of the state water marine reserves and we propose to extend it to address the needs of education and outreach of federal water marine reserves.

CINMS and SET Accomplishments (Products and Outreach) that address SET recommendations in the Marine Reserves Science Education Matrix

Products

1. *Channel Islands Marine Reserves: Wild for the Future* poster
2. *Boating and Safety Brochure* –developed in partnership between the Ventura Power Squadron, County of Ventura, Channel Islands National Marine Sanctuary and National Park to highlight boating and safety issues for the Channel Islands region. Targeting boaters and kayakers, the brochure highlights Channel Islands marine protected areas, watchable wildlife techniques and information on weather and shipping lanes. The new brochures will be mailed to all registered boaters (estimated at 25,000) in Ventura County.
3. *Protecting Your Channel Islands Brochure* – provides a synopsis of regulations for the general public about the Channel Islands and surrounding waters. Detailed information with graphics about each marine reserve and marine conservation area are provided in maps of the individual Islands.
4. *Mapping an Ocean Sanctuary GIS curriculum* – Developed by the Center for Image Processing in Education (CIPE) and the sanctuary, this GIS curriculum is a set of six lessons that teach fundamental marine and environmental concepts. One lesson focuses on the impacts of marine reserves on population dynamics.
5. *Alolkoy "Recreation in the Sanctuary" Winter 2002* –Article highlighting Channel Islands marine protected area designation and an overview of the 3-year process.
6. *Marine Reserves: Where do you fit in? Digital Lab* – Online digital lab created for JASON XIV *From Shore to Sea* that highlights different stakeholder priorities for establishing no-take marine reserve network around Anacapa Island balancing the need for enhancing biodiversity with conservation with sustaining economic interests.
7. *The Science of Marine Reserves* – a publication produced by the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) to provide information about marine reserves including effects of marine reserves in 5 case studies, design considerations and criteria for locating marine reserves.

8. **Current: *The Journal of Marine Education, Fall 2004 issue:*** Marine Protected Areas-with article by Lydia Bergen and Mark Carr, “Designing the Channel Islands Marine Reserves: A Case Study of Science-Based Reserve Design

9. ***New employee: Jonna Engel, Education and Outreach Specialist***

10. ***New Signage: signs for 2005:***

1. Marine Reserves signs at boat launch ramps
Santa Barbara Harbor
Ventura Harbor
Channel Islands Harbor
2. New CINMS sign at CINP Headquarters
3. Sign at Santa Barbara Zoo

Outreach

1. ***April 2004 Outreach event held by SET*** and open to public-Update on status of Marine Reserves and Marine Reserve Science

2. ***“Adopt-a-Business” program*** – Volunteers from the Channel Islands Naturalist Corps adopted businesses to distribute marine protected area information. The purpose of this program is to ensure distribution of marine reserve information to businesses that cater to boaters, divers, fishermen, kayakers and the general public that visit the Channel Islands. Over 58 businesses have been adopted in Santa Barbara and Ventura Counties. The volunteers will visit each business they adopted on a monthly basis to restock materials and provide updates as necessary.

3. ***Adult Education*** –CINMS highlights the marine reserves process in the adult education course “Discovering the Channel Islands National Marine Sanctuary” at Santa Barbara City College and Ventura County Community College. Over 100 community residents have participated in the course since it began in 2001.

4. ***REEF Marine Reserve Monitoring Cruise*** – a 4-day fish survey cruise to the Channel Islands. Participants conduct fish counts in reserve locations and outside reserve locations.

SET Working Group Update for SAC 9/24 meeting

A subset of SET met in September and decided on a priority action item: Developing (updating existing presentations and creating new presentations) a series of power point presentations for SET members (as well as other folks including other SAC members) to use for community outreach. SET’s goal is to complete two presentations in the next couple months—An overview of CINMS and a presentation on CINMS marine reserves. When these are completed SET will identify target audiences and assess the needs for additional presentations (for example: Research within CINMS, Animals in CINMS, Human history within CINMS, etc., etc.). Workshops will be held to cover presentation content for future presenters. The new CINMS Education and Outreach Specialist, Jonna Engel, will be working with SET to accomplish this goal (and Jonna is the new CINMS staff liaison for SET).

User Groups		Materials and Products					Distribution Methods				
		Printed Materials	Audio-Visual Materials	Targeted Presentation	Field Trips	Signage Exhibits Posters	Internet	Media Radio/TV Print	Existing Weather Kiosk	Outreach Lecture Workshop	Direct Mail Drop Off
Private Boats	Fishing	5	3	0	0	4	4	5	3	2	1
	Diving	5	3	0	0	4	4	5	3	2	1
	Non-Consumptive	5	3	0	0	4	4	5	3	2	1
Charter Vessels (all types)	Operators	5	3	2	1	4	3	2	1	4	5
	Users/Passenger	4	3	2	0	5	3	5	0	4	2
	Boat Rentals	4	1	0	0	5	3	2	1	0	5
Commercial Fishing	Resident	5	3	0	0	4	4	3	0	0	5
	Transient	5	3	0	0	4	5	4	0	0	3
	Seasonal	5	3	0	0	4	5	3	0	0	4
Research	Agency Affiliate	5	3	4	0	0	4	2	0	5	3
	University Affiliate	5	3	4	0	0	4	2	0	5	3
	Private Group	5	3	4	0	0	4	2	0	5	3
Education	K - 12	1	2	4	3	5	3	2	0	4	5
	Community College	1	2	4	3	5	4	2	0	3	5
	University	1	4	3	2	5	4	2	0	3	5
	Aquariums/Museums	3	4	2	1	5	4	3	1	2	5

User Groups		Materials and Products					Distribution Methods				
		Printed Materials	Audio-Visual Materials	Targeted Presentation	Field Trips	Signage Exhibits Posters	Internet	Media Radio/TV Print	Existing Weather Kiosk	Outreach Lecture Workshop	Direct Mail Drop Off
Outreach Groups	YMCA	1	4	5	2	3	4	1	0	5	0
	Boy/Girl Scouts	1	4	5	3	2	4	1	0	5	0
	Junior Life Guard	3	2	5	4	1	4	1	0	5	0
	Park Concessions	3	4	5	1	2	4	1	0	5	3
	Yacht Clubs	2	1	5	3	4	1	3	0	5	4
	Dive Shops	5	3	2	1	4	3	4	0	2	5
	Dive Associations	3	2	5	4	1	3	4	0	5	2
	Fishing Assoc.	5	4	3	0	1	5	4	0	3	1
	Tackle Shops	4	1	0	0	5	0	0	0	4	5
	West Marine, etc.	4	1	0	0	5	0	0	0	4	5
	CG Aux/Power Squad	4	2	5	0	3	3	2	0	5	4
	NGO/Edu. Partners	1	3	5	4	2	4	3	0	5	2
Military		4	2	5	1	3	3	2	0	5	4
General Public		1	2	4	5	3	4	5	0	3	2
Average		3.5	2.7	2.8	1.3	3.2	3.5	2.7	0.4	3.4	3.1
Median		4	3	3.5	0.5	4	4	2	0	4	3
Mode		5	3	0	0	4	4	2	0	5	5

Sanctuary Advisory Council Comments regarding the Staff Preliminary Working Draft Document for Consideration of Marine Reserves and Marine Conservation Areas within the Channel Islands National Marine Sanctuary

Attachment 3: List of voting seats participating in the September 24, 2004 Channel Islands National Marine Sanctuary Advisory Council meeting during the marine reserves document comment session.

Voting Seat	Voting Record
Tourism – alternate	Yes
Non-Consumptive Recreation – member	Yes
Business – <not present>	<not present>
Conservation – member	Yes
Commercial Fishing – member	<not present during vote>
Recreational Fishing – member	Yes
Education – member	Yes
Research – member	Yes
Public At-Large #1 – member	Yes
Public At-Large #2 – member	<not present during vote>
National Marine Fisheries Service – member	<not present during vote>
National Park Service – member	Yes
US Coast Guard – alternate	Yes
Minerals Management Service – member	Yes
Department of Defense – member	Yes
California Department of Fish and Game – alternate	<not present during vote>
California Resources Agency – <not present>	<not present>
California Coastal Commission – <not present>	<not present>
County of Santa Barbara – member	Yes
Ventura County – alternate	Yes