

**DEPARTMENT OF FISH AND GAME**

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**PFMC**



October 9, 2002

D.O. McIsaac, Ph.D.  
Executive Director  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 200  
Portland, OR 97220-1384

**Subject:** Environmental Document for Marine Protected Areas in NOAA's Channel Islands National Marine Sanctuary (SCH# 2001121116)

Dear Dr. McIsaac:

In a letter dated July 15, 2002, you submitted comments on behalf of the Pacific Fishery Management Council (PFMC) to the California Fish and Game Commission (Commission) and the California Department of Fish and Game (Department) regarding the draft environmental document (ED) referenced above.

The draft ED, dated April 2002, which the Department released for public review on behalf of the Commission on May 30, 2002, addresses the potential for environmental impacts associated with the Department's recommendation that the Commission designate marine protected areas pursuant to the Marine Life Protect Act (Fish & G. Code, § 2850 et seq.) in a portion of the State waters included in the Channel Islands National Marine Sanctuary (Proposed Project).

The Department's responses to the comments you provided on behalf of the PFMC are enclosed for your consideration. (See generally Cal. Code Regs., tit. 14, § 781.5, subs. (c), (h).) These comments and the Department's responses are included in Chapter 8 of the final ED for the Proposed Project dated October 2002, which is now available to the public.

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The Commission will address the Proposed Project and may take action regarding the Department's recommendation at a special meeting of the Commission in Santa Barbara, on October 23, 2002.

Please contact me at the address and telephone number listed above if you have any questions.

A handwritten signature in black ink, appearing to read "John Ugoretz", with a long horizontal flourish extending to the right.

John Ugoretz  
Senior Marine Biologist

Enclosure

Responses to Comments from the Pacific Fishery Management Council.

Comment 1: Chapter 4 provides the appropriate baseline.

Response 1: Comment noted.

Comment 2: The document does not address the potential impact of status quo.

Response 2: The No Action Alternative (status quo) would not achieve project goals and objectives because it would result in the continuation of current habitat and population trends (See Draft ED, Chapter 4). As noted in the PFMC Phase I Technical Analysis of marine reserves (Parish et al. 2001), the estimated biomass of the majority of West Coast groundfish species have long-term downward trends. This is also true for some other species. For example, since 1985, abundances of harvestable red urchins (*Strongylocentrotus franciscanus*) have declined by 1% per year at fished sites on Santa Rosa and San Miguel Islands relative to non-fished reserve sites on Anacapa Island (S. Schroeter & D. Reed, analysis of NPS data). The commercial fishery for rock crab (*Cancer* spp.) has localized effects on crab abundance and size. Crab fishing areas intensively exploited over an extended period show a lower catch-per-trip and reduced size frequency distribution compared to lightly exploited areas (Leet et al. 2001). Very little is known about the long term status of many other stocks, including certain invertebrates and nearshore rockfish. Effective management of marine fisheries must take into account uncertainties about the status of stocks and the entire ecosystem supporting them, which is an integral component of the proposed project as recommended by the Department. The failure to take such an approach, in the Department's view, is to compromise ongoing efforts to rebuild overfished stocks and avoid other management actions that could have dramatic negative consequences for the fisheries.

Comment 3: The rationale for rejecting the alternative to defer to the MLPA is not clear.

Response 3: The impacts of deferring any Commission action regarding MPAs in the Sanctuary to the ongoing MLPA process are unknown. Because this process could result in either the status quo (same as No Action) or new MPAs, it is not possible to predict potential environmental impacts (See Draft ED at p. 6-64). Certainly, deferral is not contemplated in the MLPA. The act states that it is not intended to restrict any existing authority of the Department or the Commission to make changes to improve the management or design of existing MPAs or designate new MPAs. The proposed project falls squarely into this category.

Deferring any action to the MLPA process could diminish the benefits and dilute the high level of local involvement and input that occurred during the planning of the proposed project. From a socioeconomic standpoint, the potential economic impacts to local harbors and communities – and, more importantly, to local individuals as expressed during the planning process – may be diluted by the overall economy of California. Further, an incremental approach would not necessarily avoid

socioeconomic impacts to recreational fishing, but would only draw them out. Finally, the Department believes that deferring any action to the MLPA process will not achieve project goals and objectives to the same degree as the proposed project.

Comment 4: The document does not address the problems of displaced effort in particular the potential for habitat effects.

Response 4: The potential impacts of congestion in general are described in the Draft ED at pages 5-17 through 5-18, and within the proposed project on page 5-31. This discussion indicates that, although certain activities will be displaced spatially by MPAs, the level of displacement is relatively low, with any added pressure outweighed by expected benefits to the fishery. These benefits would include more sustainable resources in the long-term as well as potential increases in catch due to added production from within MPAs. The key question regarding congestion is whether the expected increase in export from reserves can compensate for the increased fishing pressure in non-reserve areas. If it does, fishery yields will show a net increase or remain the same despite the displaced effort. If congestion leads to a negative habitat impact, populations on the borders of reserves would be expected to show an equivalent decline. As described in the Final ED on page 5-18, the comprehensive reviews of reserves by Halpern (2002) and Palumbi (2002) suggest that production increases inside reserves are considerably larger than expected increases in take outside reserves. In the case of the proposed project, 100% of the effort would be limited to approximately 81% of the area (with a 19% closure). The empirical data in these studies suggest that enhanced production within reserves can more than compensate for the effects of congestion outside for reserve areas as high as 50%. These conclusions are supported by empirical data outside reserves. Studies consistently show increases in abundance immediately outside reserves that would not occur if habitat impacts were negative (e.g., Roberts et al. 2001; Stevens and Sulak 2002; Murawski et al. 2000; McClanahan and Kaunda-Arara 1996; Ratikin and Kramer 1996; and Russ and Alcalá 1996b).

The MLPA, with which the proposed project must be consistent, expressly requires the Department, in evaluating proposed projects with potential adverse impacts, to highlight those impacts and to recommend measures to avoid or fully mitigate any impacts that are inconsistent with MLPA goals and guidelines, or the objectives of the MPA. Thus, the MLPA itself provides additional safeguards against the proposed project having significant adverse environmental impacts. As a result of this evaluation, the Department concluded that no such significant adverse impacts will result from the proposed project. Further, although the phenomenon of congestion has been determined not to rise to the level of a significant impact, the Department notes that the adaptive management component of the proposed project, as required by the Marine Life Protection Act, which includes ongoing monitoring, research and evaluation after project approval, will provide ongoing information regarding post-approval environmental conditions. This information, along with the Department's authority to recommend additional management measures to the Commission, will ensure that approval of the proposed project does not result in any significant environmental

impacts. This would not be limited to creation, modification, or removal of MPAs and could include measures such as reduced allowable catch, increased size limits, seasonal closures, etc.

The proposed project is not deficient because it does not provide economic mitigation for impacted commercial fisheries. The concept of "mitigation" referenced in the Draft ED is in relation to environmental impacts to the resource itself, not to the socioeconomic activities related to the resource. Because no project-related significant effects are expected, mitigation measures are unnecessary under CEQA. Indeed, economic and social effects of a project are not environmental impacts per se for purposes of CEQA. Accordingly, no economic mitigation to impacted fisheries is required.

Comment 5: Information on the specific level of effort and displacement is necessary to determine the relative impacts.

Response 5: Spatially explicit data on use are scarce for California as a whole, as well within the project area. The numbers provided in the Draft ED for maximum potential loss to consumptive users is one way to gauge potential displacement. This does not, however, show the number of vessels that might be forced into closer proximity on a given day. The Department has added spatially explicit data on use to the document to help show the level of displacement each reserve might cause. This information can be found on page 5-32 in the Final ED. The Department rejects the implied assertion that absolute scientific certainty is necessary before the Commission takes action with respect to the proposed project. Neither the MLPA nor any other legal authority mandates such an approach. In fact, the MLPA expressly contemplates and requires use of the "best readily available science" and the Draft ED adheres to such a standard. In the absence of location-specific empirical evidence, scientific theory and theoretical studies form the basis of best readily available science. Because there is little location-specific empirical evidence, the best readily available science regarding the proposed project, alternatives and their respective effects is grounded in sound scientific theory and theoretical analysis. Moreover, one of the reasons underlying the MLPA to establish MPAs in the first place is to obtain environmental "baseline information" and "and to establish environmental reference points." For this reason, the MLPA expressly contemplates the application of "adaptive management" in areas of scientific uncertainty as a framework to adjust management actions in response to monitoring, research and data indicating the need for such changes. The scientific basis for expected results of the proposed project are discussed in detail in the Draft ED Chapter 5. See also Response to Comment 4 above.

Comment 6: The document's threshold of significance for habitat representation is not adequately explained.

Response 6: The threshold of significance for biological impacts is defined on page 5-6 of the Draft ED as "any impact that has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a

fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory.” Consistent with CEQA, this significance threshold serves as a gauge or measure to assess whether project-related impacts on biological resources are significant. The Department, in this respect, believes the threshold of significance is adequately explained. The comment appears, in part, to confuse CEQA's obligation to establish a significance threshold for project-related environmental impacts with the Department's recommendation regarding reserve size, as compared to the SAP's recommendation. The CEQA threshold of significance for biological resources, as noted above, is clearly articulated in the Draft ED at page 5-6. The comment, in contrast, refers to the criteria used for “the purpose of comparison” of habitat representation found discussed in the Draft ED in Section 5.3.1 on pages 5-6 through 5-18. These criteria were used in order to examine the relative biological benefits of the proposed project and each alternative, not (as in the case of the significance threshold) the potential for project-related environmental impacts. Chapter 5 has been reorganized and minor editorial corrections made to make this difference more apparent.

Comment 7: Beyond the issue of size, the SSC notes that habitat representation is a fundamentally sound approach to determining which areas to place in reserves for protecting biodiversity.

Response 7: Comment noted.

Comment 8: Substantial fisheries benefits on a stock-wide scale are unlikely to result under any of the MPA alternatives at CINMS. More specifically, the arguments for expected fisheries benefits (pp. 6-66, 6-67 and Figure 6-1) are technically weak and not compelling.

Response 8: The Department agrees that stock-wide benefits are difficult to predict and may not occur. This is in part true because the study area was limited to the Sanctuary boundaries. However, this was not identified as an objective or goal of the MRWG process (see Draft ED Appendix 3, p A3-7). The Department also agrees that the statements made on the referenced pages and the figure used as an example by the commenter were difficult to understand. Given that they were not necessary in determining the potential for negative environmental impacts or in developing the criteria for comparison of alternatives, these statements and graph were removed from the final document. See Response to Comment 5 above regarding the need for scientific certainty.

Comment 9: The SSC agrees 1996-1999 is a reasonable baseline period for commercial fisheries. The SSC agrees with the assessment that activities within the CINMS account for less than 1% of total income and employment in the seven county area of impact.

Response 9: Comment noted.

Comment 10: The SSC requested documentation be added to the Draft ED (or at least the socioeconomic analysis) regarding how consumer surplus estimates were derived.

Response 10: The estimations of consumer surplus were developed by Leeworthy and Wiley and described in their report (Leeworthy and Wiley 2002). Though, the Department feels the justification for these estimates is adequately described in their report, Leeworthy and Wiley have also sent a specific response to this and other comments to the SSC. Leeworthy and Wiley's response is included in the Final ED as Appendix 7. Changes in the estimates of consumer surplus would not alter the potential impacts to the natural environment described in the Draft ED.

The Department prepared a detailed economic impact analysis as part of the planning process for the proposed project even though economic and social effects of a project are not environmental impacts per se for purposes of CEQA. The results are included in the potential impacts to the human environment in Section 5.4 and Chapter 6 of the Draft ED. This economic analysis will be incorporated into the Fiscal and Economic Impact Statement, which will be reviewed by the Trade and Commerce Agency and must be approved by the Department of Finance. After that, the Department, on behalf of the Commission, will submit the analysis to the Office of Administrative Law as part of the rulemaking file required to promulgate regulations. Against this backdrop, the Department believes the existing economic analysis provides important information to the Commission and public at large that will foster informed public decisionmaking.

Comment 11: The SSC considers the estimates of profits for the party/charter sector quite reliable.

Response 11: Comment noted.

Comment 12: It is not clear to the SSC why the value of fisheries at Tortugas should be a reasonable proxy for the value of fisheries at CINMS.

Response 12: The estimate of consumer surplus were developed by Leeworthy and Wiley and are incorporated in the Draft ED by reference. The method for determining this number is described on page 108 of Leeworthy and Wiley, 2002. They note that their estimates are not technically correct in that they overstate the commercial fishing values. Even so, since the same estimates were used for all alternatives, their use for estimating relative socioeconomic impacts among alternatives is still valuable. See also Response to Comment 10 above.

Comment 13: In order to apply the results used to determine elasticities (0.04, 1.0, and 4.5) for potential increases in recreational quality, it is necessary to make unsubstantiated assumptions.

Response 13: The Department acknowledges that these types of estimates are highly subjective. They were used as a general reference in order to compare economic impacts among Alternatives. Since the same range of elasticities was used for each alternative, the relative socioeconomic impacts are useful, if not exactly precise. See also Response to Comment 10 above.

Comment 14: The SSC expresses several reservations regarding the estimation of non-use values and the net benefits assessment found in Chapter 6 of the Draft ED. They also suggest that the benefits and potential costs of monitoring, research, and management should be analyzed.

Response 14: The Department appreciates this comment. The net benefit assessment was not critical to the development or comparative analyses of the proposed project. Section 6.8.2 of the Draft ED has been revised to more clearly represent potential costs and benefits in a qualitative manner. Quantitative references to potential benefits have been removed in the Final ED. Analysis of non-physical social and economic effects, however, is not required by CEQA. In this regard, the Department believes the Draft ED includes more than adequate social and economic analysis to foster informed public decisionmaking and disclosure as those issues concern project-related environmental impacts. Along the same lines, the Department believes the Draft ED includes sufficient social and economic information and analysis to assist decisionmakers in determining whether project-related environmental effects are significant under CEQA. Quantification of passive use values requires the application of complex economic valuation techniques that do not contribute to the determination of whether the proposed project has significant adverse impacts to the environment. See also Response to Comment 10 above.

Comment 15: The proposed project may have local benefits and, as part of a larger system, may help provide stock-wide benefits.

Response 15: The Department agrees.

Comment 16: Substantially more scientific work is needed before proceeding.

Response 16: The Department rejects the implied assertion that absolute scientific certainty is necessary before the Commission takes action with respect to the proposed project. Neither the MLPA nor any other legal authority mandates such an approach. In fact, the MLPA expressly contemplates and requires use of the "best readily available science" and the Draft ED adheres to such a standard. In the absence of location-specific empirical evidence, scientific theory and theoretical studies form the basis of best readily available science. Because there is little location-specific empirical evidence, the best readily available science regarding the proposed project, alternatives and their respective effects is grounded in sound scientific theory and theoretical analysis. Moreover, one of the reasons underlying the MLPA to establish MPAs in the first place is to obtain environmental "baseline information" and "and to establish environmental reference points." For this reason, the MLPA expressly contemplates the



application of "adaptive management" in areas of scientific uncertainty as a framework to adjust management actions in response to monitoring, research and data indicating the need for such changes. The scientific basis for expected results of the proposed project are discussed in detail in the Draft ED Chapter 5.

One of the benefits of MPAs is that they provide a buffer against management uncertainty by maintaining portions of a habitat or population in a natural state that will provide baseline information and reference points against which scientists can measure changes elsewhere in the marine environment. In addition, the Channel Islands National Park Kelp Forest Monitoring program already provides a baseline of information for 16 sites that have been monitored for 20 years. The proposed project includes 7 of these 16 within MPAs, allowing comparison of changes after implementation. Analysis in the Draft ED is based, in part, on monitoring results over the past 20 years. In addition the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) monitors 6 additional subtidal sites. The PISCO sites have been monitored since 1999 and provide additional baseline information relied on in the Draft ED.

Comment 17: One impact may be displacement of effort into the albacore fishery.

Response 17: The Department believes any such impact will be less than significant under CEQA. See Response to Comment 4 above. The Department also notes that the PFMC will have jurisdiction over the albacore fishery when the Highly Migratory Species FMP is adopted, which is expected to occur in November 2002, and regulations are implemented in 2003. The Department will provide management input and coordinate with the PFMC to the extent feasible, which will help ensure that any project-related impacts to the albacore fishery remain less than significant.

Comment 18: The document fails to consider the body of opinion that finds only theoretical basis for a 30-50% set aside.

Response 18: The MLPA does not require scientific certainty prior to acting. Instead, any MPA-related decisions must be based on the best readily available science. Scientific theory and theoretical studies in the absence of empirical evidence form the basis of best readily available science. The Department, in this respect, relied on more than the single recommendation of a 30-50% set aside to develop the proposed project. The Department relied on a much broader spectrum of scientific input, as well as existing and new fisheries management strategies. See also Response to Comment 16 above.

Comment 19: A minority of the (PFMC Coastal Pelagic Species Sub-panel) advisors generally supports the proposed project.

Response 19: Comment noted.

