

RESEARCH ACTIVITIES PANEL

A WORKING GROUP OF THE CHANNEL ISLANDS NATIONAL MARINE SANCTUARY ADVISORY COUNCIL

To: Chris Mobley, Superintendent, Channel Islands National Marine Sanctuary
From: Robert Warner, Chair, CINMS Research Activities Panel
Date: September 17, 2008
Re: Review of Channel Islands National Marine Sanctuary Condition Report

On August 27, 2008 the Channel Islands National Marine Sanctuary Research Activity Panel (RAP) was asked to review the document entitled: **Channel Islands National Marine Sanctuary Condition Report** (= the condition report).

The condition report is described as a summary of the status of resources in the Channel Islands National Marine Sanctuary. This includes (1) descriptions of the status and trends of living resources, (2) the pressures acting on those resources, and (3) the management actions taken to conserve the resources. Resources are divided into four main categories: water quality, habitat, living resources, and maritime and archeological resources.

The report was compiled by surveying separate working groups, composed of outside experts, for each resource category. The expert responses were compiled and interpreted by sanctuary staff and compiled into “ratings” as answers to 17 questions on the features of the four resource categories. The ratings for each question are supported by short narratives that provide additional details on the information used to create ratings. The condition report indicates an expectation that much of the information would come from comprehensive monitoring, but in most cases the absence of monitoring resulted in assessments based on best professional judgment. This is true both with respect to the information used to perform the assessment, and also the method or process of converting the available information into a condition score or “rating”. Given the constraints of this approach, the RAP feels that CINMS staff have done a heroic job in assembling this report.

This process resulted in ratings of “Fair” to “Good” in response to all but one of 17 questions (question 10, *What is the status of environmentally sustainable fishing and how is it changing?* received a rating of “Fair/Poor” with increasing quality). No question received a rating of “Poor” or “Undecided”. The ratings of 3 out of 17 questions indicate that the trend is deteriorating and 4 out of 17 have an undetermined trend.

The ability of the RAP to review the condition report was constrained in two ways.

First, several members of the RAP contributed to the condition report as “outside experts”. This is important in that it limits those individuals’ abilities to review the document as independent peers as per best professional practices and guidelines on peer review from the White House’s Office of Management and Budget. To address this restriction, members of the RAP were asked to review only those parts of the condition report that they did not author. The remaining contributions of the RAP members are then compiled in this summary.



The second constraint is that the primary purposes of the RAP is to review research priorities related to the management of the sanctuary, review research projects in the sanctuary, and provide scientific advice to the Sanctuary Advisory Council. As such, the scope of RAP review is research and science. It is recognized that there may be other management needs addressed by the condition report, such as scheduled reporting and accountability, but we limited our review to an assessment of its scientific reliability, utility, and integrity.

General Critique:

The overarching assessment of the condition report is that for many categories there is little or no scientific basis (that is, available data) to support the ratings in the report. **Therefore, the ability of this document to provide science-based support for management of the Sanctuary is limited.** This is the case both with respect to the information in the report and how that information was used to assess the status of the sanctuary resources.

This assessment is not a criticism of the scientific integrity, level of effort, credentials or professionalism of the contributors or CINMS staff. It is clear that the information summarized in the condition report represents a tremendous effort on the part of those individuals to characterize conditions in and around the CINMS. Whatever scientific information was available was summarized in a professionally responsible manner. The contributors and CINMS staff should be praised for investing the effort to compile their collective experience and knowledge. In that context, the condition report is a significant compilation of the current information on CINMS resource status, and the scientific integrity of the report is high. However, the RAP remains concerned with the degree of confidence that can be applied to the ratings, especially if these ratings result in management actions.

We fear that this report will be used as a replacement for reliable data on the status of the Sanctuary. Expert panels are neither monitoring, nor a cheap alternative to monitoring, and they should not be treated as such by managers. However learned the panel, professional judgment is not falsifiable and therefore not easily tested; this is especially true when the judgments themselves are not based on data. CINMS staff have compiled information on the sources of information used by the experts in this exercise, and often there were little or no data available upon which to base a determination.

In addition, in many cases, the process of arriving at a rating was unclear. For example, on page 32 of the condition report in reference to question 12 (an assessment of the status of key species), a species is listed as being extirpated from the sanctuary, and it is reported that there has been profound decline in krill abundance. Yet question 12 receives a rating of “Fair” and “not changing”. This one example of many points out a systemic problem in the condition report: there is no articulated decision support model or benchmark for performance. **To the extent that the rating scheme is subjective, it should not be used as scientific support for management decisions.**

The summary of the management actions and pressures appears more comprehensive, perhaps because these assessments are less dependent on science-based information for their findings.



Potential value of the Condition Report:

The RAP suggests that rather than treating the condition report as a summary of resource status, it should be recognized as a series of relatively well articulated hypotheses on the condition of the resources in CINMS. Used in this way, there is a clear opportunity for the condition report to move management of the sanctuary forward in an adaptive framework. While no consensus exists that the status condition categories are the 17 most important questions facing the CINMS, it is likely that if these questions were answered it would address a majority of information needs that now exist.

Environmental monitoring commonly is undertaken in the absence of clear management questions. **The CINMS is in a rare position to leverage the significant effort that has gone into articulating the questions in the condition report to design and prioritize effective, efficient, and comprehensive monitoring.** To take advantage of this will require decisions, action, and commitments on the part of the agency.

As a start for prioritization, CINMS could address the following questions:

- Among the 17 indicators of status, which are most critical to adaptive management?
- Of those, which ones are suggested to be in relatively poor condition or in decline?
- Of those, which estimates are based on relatively few data?

Answers to these questions should help to refine research needs within the CINMS.

In summary, the RAP recommends:

- 1) That the condition report be recognized as a summary of status information needs rather than actual status, articulated in the form of questions. If these questions are addressed, it would provide scientific support for management decisions in the sanctuary.
- 2) To this end, the CINMS should adopt the condition report as a set of research priorities for future work. Design of future monitoring and allocation of resources within the CINMS can be prioritized on this basis, allowing for future review and incorporation of emerging issues of concern.
- 3) Equally, we suggest that NOAA, the National Marine Sanctuaries Program, and the Western Regional Office of the NMSP adopt the condition report as a basis for prioritizing and allocating funding for targeted resource monitoring in the CINMS, and actively support CINMS efforts to obtain funding from other national, regional, and local sources.
- 4) We also suggest that the CINMS, NMSP, and NOAA support the development of objective, scientific, and transparent standards for decision support tools that would synthesize results of monitoring data into answers to key management questions. In turn, these could constitute science support for management decisions that are based on the needs identified in the condition report.

The RAP is aware that funding environments are tight and monitoring is not given the highest priority even at the best of times. However, using this report as a statement of condition without the requisite monitoring to address continuing status, changes in status, and effectiveness of management actions will significantly reduce the scientific utility of the report.

