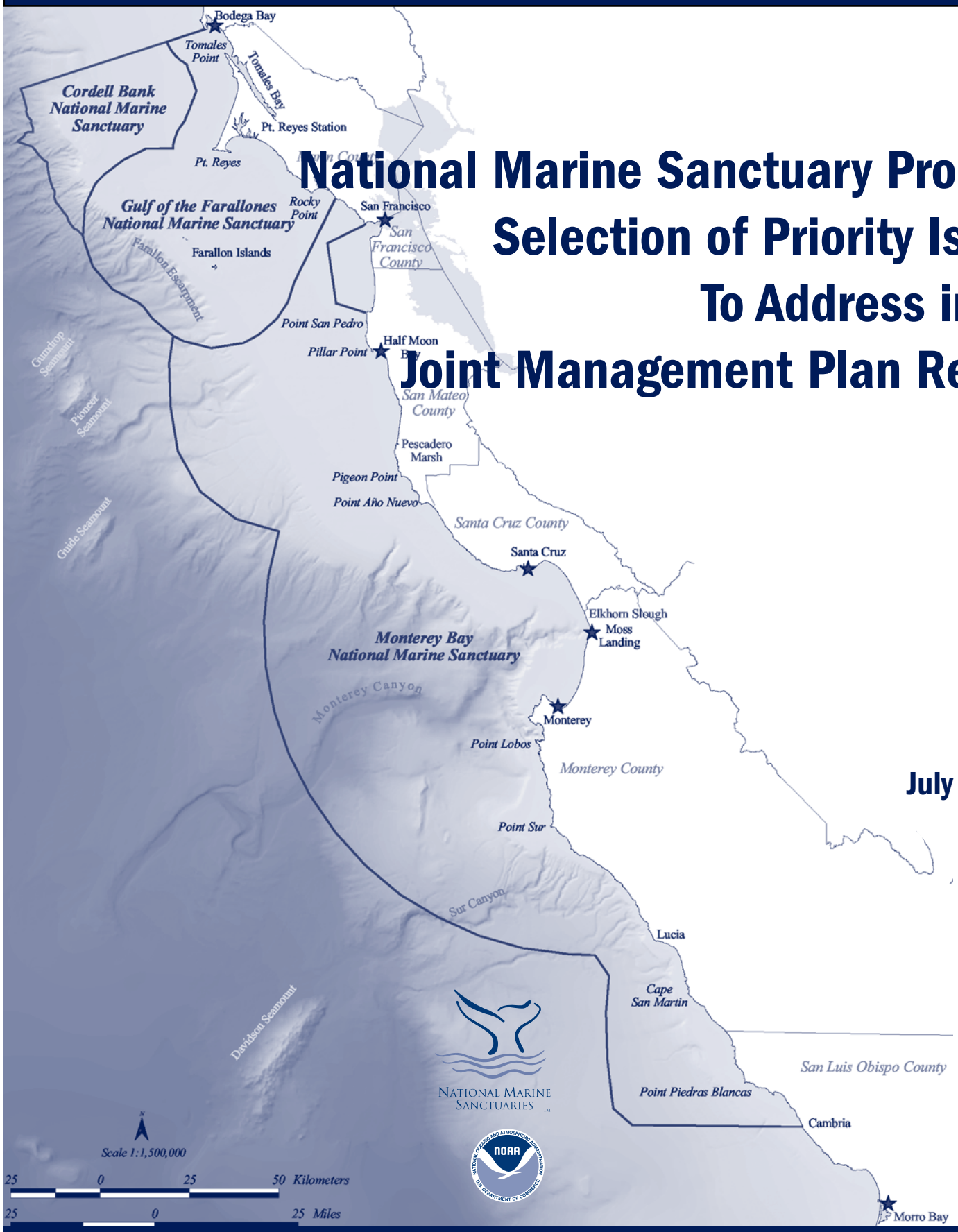
Joint Management Plan Review (JMPR)
Cordell Bank, Gulf of the Farallones & Monterey Bay National Marine Sanctuaries



National Marine Sanctuary Program Selection of Priority Issues To Address in the Joint Management Plan Review

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CONTENTS

1.0 Introduction

2.0 Identification and Prioritization of Issues
2.1 Scoping the Issues
2.2 SAC Prioritization Workshops
2.3 NMSP Internal Issue Prioritization

3.0 Next Steps

4.0 Priority Issue Summary Tables and Explanations
4.1 Table: Summary of Proposed Priority Issues

5.0 Cross-Cutting Priority Issues
5.1 Table: Cross-Cutting Priority Issues
5.2 Cross-Cutting Detailed Explanations

6.0 Cordell Bank Site-Specific Priority Issues
6.1 Table: Cordell Bank NMS Priority Issues
6.2 Cordell Bank NMS Detailed Explanations

7.0 Gulf of the Farallones Site-Specific Priority Issues
7.1 Table: Gulf of the Farallones NMS Priorities
7.2 Gulf of the Farallones NMS Detailed Explanations

8.0 Monterey Bay Site-Specific Priority Issues
8.1 Table: Monterey Bay NMS Priority Issues
8.2 Monterey Bay NMS Detailed Explanations

Appendix 1: JMPR Internal Prioritization Criteria

Appendix 2: NMSP Objectives for an Integrated JMPR Process

Appendix 3: JMPR Next Steps Flowchart

1.0 INTRODUCTION

The purpose of this document is to present Sanctuary Advisory Council members and the public with the National Marine Sanctuary Program's (NMSP's) proposed priority cross-cutting (applicable to two or three sanctuaries) and site-specific resource management issue to be addressed in the Joint Management Plan Review (JMPR). Staff developed these proposed priority issues after thorough analysis of the recommendations from the four Sanctuary Advisory Council Issue Prioritization Workshops and from internal review by the individual sanctuaries and national program staff.

Although the document best reflects those priority issues the NMSP plans to address in the JMPR, the final list of issues is subject to change. JMPR staff are in the process of determining how these issues can be addressed given existing staff and resources. Until this analysis is complete, the program cannot say with certainty that all the issues can be fully addressed in the management plan review. The analysis may reveal the need to modify or defer some of these proposed priority issues based on budgetary or staffing constraints.

The program is asking the SACs to review this document, and at the next scheduled SAC meeting, provide additional input on refining these priority issues. Input and advice from the SACs and public will help us determine which of these issues must be fully addressed over the next five years, and those issues whose final resolution may be more limited or can be deferred. This advice will help the JMPR staff to develop a draft work plan that details precisely how the issues will be addressed.

2.0 IDENTIFICATION AND PRIORITIZATION OF ISSUES

2.1 Scoping the Issues

Beginning on November 28, 2001, and lasting until January 17, 2002, the NMSP held 20 public scoping meetings in communities throughout the northern-central California coast, Sacramento, and Washington, D.C. Approximately 1,000 people participated in these forums to comment on the three sanctuaries' management strategies and provide input on specific issues they see as management priorities over the next 5 to 10 years. Approximately 4,000 comments and suggestions were obtained at these facilitated meetings. All comments were compiled and posted on the JMPR website.

In addition to public scoping meetings, the program accepted written comments from early November 2001 to early February 2002. Comments were sent to the NMSP in the form of E-mails, letters, faxes, and petitions. The program received approximately 6,500 e-mails, 300 letters, 13 faxes, and a petition with 1,700 signatures. A Summary Scoping Document was prepared and distributed to each of the Sanctuary Advisory Councils (SACs) on Feb. 25, 2002. The document is posted on the JMPR website (http://www.sanctuaries.nos.noaa.gov/jointplan/).

2.2 SAC Prioritization Workshops

Four separate prioritization workshops were held with members of the Cordell Bank, Gulf of the Farallones, and Monterey Bay SACs in mid- to late-April. The purpose of these workshops was for SAC members to prioritize, as a group, the cross-cutting and site-specific marine resource management issues and problems identified during the public scoping process. These recommendations were given to staff for final consideration in developing the final list of issues to address in the JMPR.

The first workshop was held on April 15th, and involved all three SACs jointly prioritizing the cross-cutting issues raised during the scoping process. Cross-cutting issues were defined as any issue that applied to two or more sites. Following the joint workshop, individual SACs met on the following dates to prioritize site-specific issues raised during scoping: Cordell Bank on April 22nd, Gulf of the Farallones on April 25th, and Monterey Bay on April 29th. The results from these workshops were distributed to SAC members on May 13th in a document entitled "Report on Sanctuary Advisory Council Prioritization Workshops." The document is posted on the JMPR website (http://www.sanctuaries.nos.noaa.gov/jointplan/).

2.3 NMSP Internal Issue Prioritization

At the onset of the JMPR over a year ago, staff from each Sanctuary initiated an internal review of their individual management plans, regulations, policies, programs, and resource management issues. The "State of the Sanctuary" reports summarize some of the results of this internal review. Although some aspects of the internal review are still underway, the information resulting from this process, as well as the public scoping comments and recommendations from the SACs on priority issues, were used by JMPR staff to help develop the proposed list of issues to address in the JMPR. The following summary outlines the general steps taken by the sanctuaries to determine priority issues for each site and how the proposed NMSP priority list was derived.

- Internal Program Review: Staff evaluated how well each individual program satisfied the vision and mission of the sanctuary as laid out in the original management plan, particularly as it related to resource protection, research, education, and outreach. As part of this analysis, staff reviewed the current regulations, focusing on how the regulations were implemented, where they need adjustments, and whether any additional regulations are needed to protect sanctuary resources.

- Participation in Scoping: Nearly all on-site Sanctuary staff participated in one or more of the 20 public scoping meetings. These meetings defined the range of issues and concerns important to the various constituents.

- Compare Issues Raised in Scoping with Existing Programs: Following the completion of the Summary Scoping document, each Sanctuary compared how their existing programs, regulations, policies, and partnerships addressed the 30 main resource management issues raised during scoping.

- SAC Prioritization Exercise: Sanctuary staff and management observed and/or participated in the four SAC prioritization workshops. These workshops helped staff focus the site's own priority issues.

- Staff Issue Prioritization Exercise: Each of the three sanctuaries' participated in an issue prioritization exercise similar to the SAC workshops. Staff was allowed to add issues or concerns that were not represented in the Scoping Summary document.

- Comparison of Staff and SAC Priorities: Results from the staff and SAC issue prioritization exercises were compared and used by staff to develop a proposed list of final issues to address in the JMPR.

- Finalize Proposed List of Priority Issues: On May 15, core JMPR staff (from all three sanctuaries and headquarters) met in Santa Cruz, CA to determine, as a program, the final list of priority cross-cutting and site-specific marine resource management issues and problems to address in the JMPR. This group developed the final proposed list of priority cross-cutting and site-specific marine resource management issues and problems to address in the JMPR. The results are summarized in sections 5.0 – 8.0 of this document.

3.0 NEXT STEPS

This document containing the NMSP's proposed list of cross-cutting and site-specific issues will be distributed to each SAC for comment. The SACs will discuss the proposed list of priority issues at the following SAC meetings:

• CBNMS	September 10		(location TBD)
• GFNMS	September 12		(location TBD)
• MBNMS	August 1	7:00 – 9:00 p.m.	Cambria, CA – Public Comment on Issues
	August 2	9:00 – 4 p.m.	Cambria, CA - Comment, Discussion, Advice from SAC

Once finalized, the document will provide the basis for the development of a draft work plan. This draft plan will outline how the program will use staff, SAC members, and subject experts to characterize and develop strategies to address priority issues in the joint management plan review. It is envisioned that working groups will be created to address some site-specific and cross-cutting issues. SAC members and other subject experts will be invited to participate in the working groups after the work plan is finalized. SAC members will also have an opportunity to comment on the draft work plan before it is made final. The next steps are summarized in Appendix 3: JMPR Next Steps.

4.0 PROPOSED PRIORITY ISSUE SUMMARY TABLES AND EXPLANATIONS

The following tables and corresponding text summaries depict the cross-cutting and site-specific issues the National Marine Sanctuary Program plans to address in the JMPR. Table 4.1 provides an overall summary of the proposed priority issues. More detailed explanations can found in each of the issue areas: Cross-cutting, Cordell Bank, Gulf of the Farallones, and Monterey Bay.

Each section contains a table that depicts the original SAC recommended list of priority issues and a color code that proposes how the NMSP intends to address the issue in the JMPR. Issues will be addressed either as a cross-cutting issue (green), as a site-specific issue (blue), as a “tool” (black), or they will not be addressed in this JMPR (red). Accompanying each table is a brief description of the issues and a detailed explanation as to why it was selected to be addressed in the JMPR. This section closely follows the order of issues listed in the priority issues summary table.

To clarify what is meant by “tool”, for practical purposes the NMSP sorted out the actual marine resource "issues" (e.g., wildlife disturbance) from the "tools" that might be used to address these issues (e.g., education). In consideration of the next step, which is to build a work plan for the new management plan, it will be easier to build a consistent structure if the strategies are built around the "issues" and the "tools" are used to achieve the goals and objectives for each strategy. It should be understood that even though a distinction has been made between issues and tools, both may be incorporated into the new management plan in some capacity. This will be flushed out in the work plan over the next several months.

Some issues that were recommended by one or more of the SACs as cross-cutting have been determined to be best handled as site-specific and vice-versa. Some recommended issues have been combined with other issues. Thus, we have also prepared a brief description of the issues to accompany each table, and reasoning as to why it was (or was not) selected to be addressed in the JMPR.

Table 4.1 - SUMMARY OF PROPOSED PRIORITY ISSUES			
Cross-Cutting	**CBNMS**	**GFNMS**	**MBNMS**
Coordinated Management • Improve management consistency and efficiency • Develop mechanism to address current and emerging issues • Coordinate research, education and enforcement • Evaluate need to modify MBNMS/GFNMS boundary	**Biodiversity Protection** • Fully characterize ecosystem dynamics • Develop species inventory • Evaluate need for boundary changes (explore significance of Bodega Canyon to productivity of CBNMS)	**Biodiversity Protection** • Characterize sanctuary habitats • Support wildlife restoration projects • Evaluate need for boundary changes (evaluate ecological linkages between GFNMS and areas to the north and west)	**Partnerships w/ Agencies (Big Sur Coastal Ecosystem Plan** • Multi–agency Coordination • CalTrans Landslide Management • Education and Outreach • Oil spill / emergency response
Fishing Activities • Clarify sanctuaries' role in fishery issues • Consider impacts to ecosystem from krill harvesting • Determine impacts to benthic habitats from fishing gear • Evaluate role of marine reserves in sanctuaries • Address fishing in research and education plans	**Water Quality** • Establish baseline water quality parameters • Develop water quality monitoring program	**Vessel Traffic** • Evaluate existing TSS lanes • Address vessel discharge issues through education and outreach (including ballast water exchange and introduction of invasive species) • Evaluate acoustic impacts on living marine resources	**Water Quality** • Implement existing Water Quality Protection Program Plans • Review / Revise MOA • Address Point Source Pollution • Address Beach Closures/Coliform • Protect Riparian Habitat
Emergency Response • Clarify and coordinate sanctuaries' roles • Evaluate response capabilities in entire region • Improve interagency coordination	**Administration** • Build independent staffing structure • Evaluate office/visitor center needs • Coordinated mgmt. with sites	**Water Quality** • Establish baseline water quality parameters • Develop water quality monitoring programs in coordination with other agencies	**Biodiversity Protection & Ecosystem Management** • Evaluate need for boundary changes • Develop a process to address emerging issues
Cultural Resources • Identify, characterize and inventory cultural resources • Identify potential threats to living resources from sunken vessels	**Research** • Develop research focus and plan for site (including monitoring) • Disseminate results to public	**Wildlife Disturbance** • Address impacts from human interactions with wildlife • Expand volunteer programs to minimize human disturbance.	**Motorized Personal Watercraft** • Review / Revise Definitions • Evaluate MPW Zones • Determine Allowed Uses

Table 4.1 - SUMMARY OF PROPOSED PRIORITY ISSUES (con't)			
Cross-Cutting	**CBNMS**	**GFNMS**	**MBNMS**
Ecosystem Monitoring • Evaluate and coordinate existing monitoring programs • Focus monitoring efforts on resource management issues		**Radioactive Waste** • Determine status and potential impacts to resources • Develop and distribute public outreach materials	**Coastal Development** • Assess coastal armoring • Review fiber optic cables • Address dredge disposal issues
Community Outreach • Improve coordination and cooperation between sites • Implement regional strategies • Increase marketing, media and public awareness campaigns		**Aquaculture (Mariculture)** • Assess impacts from discharges and introductions of exotic species • Educate user groups on best management practices • Streamline permit process	**Wildlife Disturbance** • Explore means to provide additional tidepool protection • Address impacts from human interactions with marine mammals and seabirds
Exotic/Invasive Species • Identify pathways of introduction • Monitor introduced species • Develop response and removal strategies • Develop coordinated effort to prevent future introductions		**Administration** • Expand staffing infrastructure • Explore need to open additional satellite offices and visitor centers	**Multicultural Outreach** • Implement multi-cultural outreach program (MERITO)
			Interpretive Facilities • Explore need for visitor center(s) • Address need for signs and kiosks

5.0 Cross-Cutting Priority Issues

Core JMPR staff (from all three sanctuaries and headquarters) met to determine a proposed final list of priority cross-cutting and site-specific marine resource management issues and problems to address in the JMPR. In making the final decisions on the list of issues, the core group considered the original scoping comments, recommendations from the SACs on site-specific and cross-cutting issues, the results from internal site priority exercises, evaluation criteria (see Appendix 1: JMPR Internal Prioritization Criteria), and national program goals (see Appendix 2: National JMPR Goals). The results from this workshop are summarized in the following section.

5.1 Table: Cross-Cutting Priority Issues: a table depicting the original SAC recommended list of cross-cutting priority issues and a color code that depicts how the NMSP decided to address the issue in the JMPR.

5.2 Cross-Cutting Explanations: a description of each issue that will (or won't) be addressed as a cross-cutting issue.

The issues recommended by the SACs are presented in the "bins" reflecting highest, to lowest, priority to the SACs. So, bin1 issues received the highest ranking by the SACs, bin 5 the lowest.

Table 5.1 Cross Cutting Priority Issues

	Joint SAC Recommendations	NMSP Proposal: Priority: Cross-Cutting Issue	Tool (Strategy)*	Site-Specific Issue	Not Addressing	Summary Explanation
BIN 1	9A Cultural Resources	✓				GFNMS and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Cultural Resources.**
BIN 1	10A Education (targeted)		✓			CBNMS, GFNMS, and MBNMS plan to address this "tool" by including it as an integral component of individual action plans.
BIN 1	19A Motorized Personal Watercraft			✓		MBNMS plans to address this as a site-specific issue. The issue does not affect CBNMS and has been addressed by GFNMS. **See MBNMS: Motorized Personal Watercraft.**
BIN 1	26A Emergency Response and Contingency Planning	✓				CBNMS, GFNMS and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Emergency Response and Contingency Planning.**
BIN 1	30A Wildlife Disturbance			✓		GFNMS plans to address this as a site-specific issue and work with MBNMS and CBNMS on implementation strategies for their site-specific education and outreach programs. **See GFNMS: Wildlife Disturbance.**
BIN 2	4B Biodiversity Protection (regional declines in resources & habitat)			✓		CBNMS, GFNMS and MBNMS each plan to develop site-specific action plans. **See Site-Specific: Biodiversity Protection and Ecosystem Conservation.**
BIN 2	5A Boundary Modifications		✓			GFNMS and MBNMS plan to address this as a cross-cutting "tool" under a renamed category and develop site-specific action plans. **See Cross Cutting: Coordinated Management.** Site-specific boundary considerations will be address for each site under **Site-Specific: Biodiversity Protection and Ecosystem Conservation.**
BIN 2	6A Coastal Armoring			✓		Due to the increasing rate of shoreline armoring within its boundaries, MBNMS plans to address this as a site-specific issue. This is not a priority issue for CBNMS or GFNMS. **See MBNMS: Biodiversity Protection and Ecosystem Conservation.**
BIN 2	7A Coastal Development			✓		Due an increasing human population in the region, MBNMS plans to address this as a site-specific issue. This is not a priority issue for CBNMS or GFNMS. **See MBNMS: Biodiversity Protection and Ecosystem Conservation.**
BIN 2	8B Community Outreach (comm. plan, PR, coord.)		✓			CBNMS, GFNMS and MBNMS plan to address this as a cross-cutting "tool" and develop site-specific actions. **See Cross-Cutting: Community Outreach.**
BIN 2	11A Enforcement		✓			CBNMS, GFNMS and MBNMS plan to address this "tool" by including it as an integral component of individual issue action plans.

	13A Fishing/Kelp Harvesting (fishing impacts)	✓				CBNMS, GFNMS and MBNMS plan to address this as a cross-cutting issue (kelp harvesting has been eliminated from this issue). **See Cross-Cutting: Fishery Resources.**
	14A Habitat Alteration (trawling impacts)	✓				CBNMS, GFNMS and MBNMS plan to address this as a cross-cutting issue under **Cross-Cutting: Fishery Resources**.
	18A Monitoring		✓			CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting "tool" and develop site-specific actions. CBNMS, GFNMS and MBNMS plan to address this by including it as an integral component of individual issue action plans. **See Cross-Cutting: Ecosystem Monitoring.**
	20A Oil and Gas Exploration/Development				✓	CBNMS, GFNMS, MBNMS do not believe this is a priority issue at this time since all three sanctuaries already prohibit oil and gas development. Potential impacts from oil and gas development will be addressed under **GFNMS & MBNMS: Boundary Modifications** and oil spill clean-up will be addressed under **Cross-Cutting: Emergency Response and Contingency Planning.**
	21A Partnerships with Agencies (strengthen, coord.)		✓			CBNMS, GFNMS, and MBNMS will continue their focus on partnerships with agencies, however no new action plan will be developed. CBNMS, GFNMS and MBNMS plan to address this issue by including it as an integral component of individual issue action plans.
	22A Partnerships with Community Groups		✓			MBNMS and GFNMS plan to continue to focus on partnerships with community groups and include partnerships as integral components of issue-specific action plans. However, neither site will develop a new action plan. CBNMS plans to address this as a site-specific issue. **See CBNMS: Partnerships With Community Groups.**
	24A Research		✓			CBNMS, GFNMS, MBNMS plan to address this "tool" by including it as an integral component of individual issue action plans.
	29A Water Quality			✓		CBNMS, GFNMS and MBNMS plan to address this as separate site-specific issues due to distinct water quality issues and conditions in each sanctuary. **See Site-Specific: Water Quality.**
BIN 3	1A Acoustic Impacts			✓		MBNMS plan to address this as a site-specific issue as part of its ecosystem monitoring program, but will not develop a specific action plan. At this time, it is not a priority issue for CBNMS or GFNNMS. **See Cross-Cutting: Ecosystem Monitoring.**
	2A Administration	✓				CBNMS, GFNMS and MBNMS plan to address this as a renamed cross-cutting issue. **See Cross-Cutting: Coordinated Management.**
	4A Biodiversity Protection (biodiversity poorly documented, but threatened)	✓				**CBNMS, GFNMS and MBNMS** plan to address this as a cross-cutting issue. **See Cross Cutting: Fishery Resources and Ecosystem Monitoring**.
	8A Community Outreach		✓			CBNMS, GFNMS and MBNMS plan to address this "tool" by including it as an integral component of individual issue action plans. **See Cross-Cutting: Community Outreach.**

	10C Education (multicultural)		✓			CBNMS, GFNMS, MBNMS plan to address this "tool" as integral component of individual action plans. Multicultural outreach will also be addressed by MBNMS as a site-specific issue. **See MBNMS: Multicultural Outreach.**
	12A Exotic Species	✓				CBNMS, GFNMS and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Exotic/Invasive Species.**
	21B Partnerships with Agencies (formal process for coordination)		✓			CBNMS, GFNMS, and MBNMS do not plan on addressing this "tool" as separate cross-cutting action plans. However, strategies for coordination with other agencies will be incorporated into individual action plans for each issue.
	21C Partnerships with Agencies (harbors)		✓			CBNMS, GFNMS and MBNMS do not plan on addressing this issue as separate cross-cutting action plan. However, MBNMS plans to incorporate strategies for coordination with harbors in an action plan. **See MBNMS: Coastal Development.**
BIN 4	3A Aquaculture			✓		GFNMS plans to address this as a site-specific issue. This is not a priority issue for CBNMS or MBNMS. **See GFNMS: Aquaculture**
	10D Education (lack of coord. between 3 sites)		✓			CBNMS, GFNMS and MBNMS plan to address this "tool" as integral component of individual action plans.
	17A Military Activities				✓	CBNMS, GFNMS and MBNMS do not plan on addressing this issue at this time. Strategies to monitor acoustic impacts associated with military activities may be incorporated into the **Cross Cutting: Ecosystem Monitoring** action plan.
	25B Sanctuary Advisory Council (low public profile)				✓	CBNMS, GFNMS and MBNMS do not plan on addressing this issue at this time. This issue is not considered to be a high priority warranting specific strategies. Greater outreach and marketing of the Sanctuaries will be addressed as part of an action plan. **See Cross-Cutting: Community Outreach.**
	27A User Conflicts				✓	CBNMS, GFNMS and MBNMS do not plan on addressing this issue at this time. Certain activities related to user conflicts may be addressed by GFNMS as part of a **Wildlife Disturbance** action plan or by MBNMS as part of **Biodiversity Protection.**
	28A Vessel Traffic			✓		MBNMS has recently addressed this issue. GFNMS plans to address this as a site-specific issue. **See GFNMS: Vessel Traffic.** CBNMS is primarily concerned with oil spill contingency planning. **See Cross-Cutting: Emergency Response and Contingency Planning.**
BIN 5	4C Biodiversity Protection			✓		CBNMS, GFNMS and MBNMS each plan to address this as site-specific issues. **See Site-Specific: Biodiversity Protection and Ecosystem Conservation.**

	10B Education (sharing research results with public)		✓			CBNMS, GFNMS and MBNMS do not plan on addressing this as a cross-cutting issue. However, greater outreach and marketing of research conducted in the Sanctuaries will be generally addressed as part of an action plan. **See Cross-Cutting: Community Outreach.** Education of targeted groups will be incorporated into action plans for other issues.
	25A Sanctuary Advisory Council (need for more autonomy)				✓	CBNMS, GFNMS and MBNMS do not plan on addressing this as a cross-cutting issue. This issue was not considered to be a high priority during the SAC prioritization workshops. Advisory Councils may consider modifications to their respective Charters if each Council determines it is needed.
BIN 6	13B Kelp Harvesting				✓	Kelp harvesting is not considered to be an issue for CBNMS and GFNMS. Last year, MBNMS provided recommendations to Calif. Dept. of Fish and Game on a 5-year Kelp Management plan.
Totals	**37**	**7**	**14**	**10**	**6**	**Totals:** Of the SAC's 37 Cross-Cutting priority issues, 23 will be addressed as cross-cutting (issues or strategies), 10 as site-specific, and 6 will not be addressed.

***** This matrix represents a broad range of priority issues evaluated by the all three Sanctuary Advisory Councils. All of the categories indicated below have issues associated with them, however we sorted the marine resource "issues" (e.g. wildlife disturbance) from the "tools" or "strategies" used to address these issues (e.g. education). In consideration of the next step, which is to build a work plan for the new management plan, it will be easier to build a consistent structure if the strategies are built around the "issues" and the "tools" are used to achieve the goals and objectives for each strategy. While issues and tools may be distinct, both will be incorporated into the new management plan in some capacity. How tools will be incorporated into the action plans will be identified in the work plan after SAC discussion of this list of issues.

5.2 CROSS-CUTTING EXPLANATIONS

This section provides explanations of cross-cutting issues that were selected (and not selected) by the NMSP to be addressed in the JMPR. These explanations supplement the summaries from Table 5.1.

The ordering and naming of issues in this section closely follow the order within the Joint SAC Recommendation column in Table 5.1, and are further sub-organized as to how they will be addressed:

- Issues addressed as Cross-cutting
- Issues addressed as Tools (strategies)
- Issues addressed as Site-specific
- Issues that will not be addressed in the JMPR

Each explanation lists the issue title, summarizes the program recommendation, and states the rationale. When possible, the issue explanations use the same issue nomenclature used in the SAC prioritization workshops (i.e., 9A Cultural Resources). However, there were instances when similar issues were combined and given a new name.

Issues Addressed as Cross-Cutting

9A Cultural Resources
Proposal: Develop a Cross-Cutting Action Plan.

Submerged cultural resources are an important part of our nation's maritime heritage and their protection is a mandate of the NMSA. However, to date little has been done to fully characterize these resources other than assemble a database of known shipwrecks throughout the region. The NMSP needs to develop strategies to identify, fully characterize, and protect all of the cultural resources within its boundaries – from shipwrecks to archeological sites and artifacts. A priority component of the submerged cultural resources program will be to address potential resource threats from aging sunken vessels (e.g. recent oil releases from the *Luckenbach*, or potential releases from the *Montebello).*

26A Emergency Response and Contingency Planning
Proposal: Develop a Cross-Cutting Action Plan.

Emergency response within the sanctuaries range from small events associated with fuel and oil discharges; debris and habitat damage from vessel groundings and sinkings and plane crashes; to larger spills from offshore shipping traffic. The NMSP needs to fully define sanctuary roles during large-scale emergency response, address lack of response capabilities for key stretches of coast, and improve the system of interagency coordination and response for smaller vessel groundings. Although each sanctuary has an emergency response plan in place, there is a lack of consistency and coordination between sites. Planning for an emergency within the three Sanctuaries should be integrated into a cohesive and fully understood Emergency Response Plan. The cross-cutting plan will describe oil spill and emergency response activities for all three sanctuaries, including shared resources and assigned roles for each site.

13A Fishing (and Kelp Harvesting), 14A Habitat Alteration, and 4A Biodiversity Protection
Proposal: Remove kelp harvesting, combine all three issues, change name to ***Fishery Resources***, and develop a Cross-Cutting Action Plan.

During the public scoping process, sanctuary staff received many comments concerning the impacts of fishing activities on sanctuary resources and habitats, and the role of the sanctuaries in fishery management. During the joint SAC prioritization workshop on April 15th, SAC members selected issue 13A Fishing and Kelp Harvesting, which was defined as "Fishing activities impact marine ecosystems in a variety of ways, directly (reduced fish biomass) and indirectly (secondary impacts on species interactions, habitat alteration, marine biodiversity)" as a priority. It was determined that this issue warranted further clarification, given the large amount of public interest.

Currently, the management of fisheries is the responsibility of the Pacific Fishery Management Council (PFMC), and the California Department of Fish and Game (DFG). The NMSP responsibilities lie in the protection of the entire ecosystem, which includes habitats and species. The sanctuaries' will work together to define their role in advising the fisheries management agencies on fishing activities which impact sanctuary resources and habitats.

Areas of concern that would be evaluated in this action plan include: 1) clarify the sanctuaries' role in relationship to fisheries management agencies, including commenting on state and federal fishery management plans, 2) consider methods to ensure long-term protection of krill as a critical prey to many trophic layers, 3) determine impacts to benthic habitats from trawling and consider means to minimize resource damage, 4) evaluate and provide recommendations on the role of marine reserves in the Sanctuaries, and 5) the sanctuaries' role in research and education programs related to fishing.

<u>2A Administration</u>
Proposal: Combine this issue with the following "tools": 5A Boundary Modification, 10A,C&D Education, 24A Research, 11A Enforcement, change name to ***Coordinated Management*** and develop a Cross-Cutting Action Plan.

Sanctuary resources do not recognize political or administrative boundaries. Likewise, threats and impacts to these resources may be more effectively addressed on a regional level. It is a high priority for the NMSP to develop strategies for improved, consistent and efficient management across all three sites. There is also a clear need to develop an overarching mechanism to address current and emerging cross-cutting issues within the program.

Within the scope of "Administration", the program has determined to also coordinate the development and use of tools (strategies) to address specific issues. These include: boundary modifications (shared boundaries), research, education, and enforcement. Although these are all tools and strategies to address resource management protection efforts, the three sanctuaries will make a concerted effort to insure coordination and collaboration in the use of these tools to maximize their effectiveness.

<u>12A Exotic/Invasive Species</u>
Proposal: Develop a Cross-Cutting Action Plan

The individual and cumulative impacts of invasive species on native species and habitats are not well understood. Impacts may include: decreasing abundance and even local extinction of native species; alteration of habitat structure; and extensive economic costs due to biofouling. Eradication of introduced species is proven to be difficult, thus management practices focus largely on the prevention. To address recent introductions of certain exotic algae, individual sanctuaries have engaged in education and eradication measures. However, this occurs on a piecemeal basis, after the introduction and impacts have occurred. The three sanctuaries will develop a cross-cutting plan to evaluate: pathways of exotic species introduction, identify and monitor current levels of invasive species, develop response and removal strategies, and develop a coordinated effort to prevent future introductions.

Issues Addressed as Tools (Strategies)

10A,B,C&D Education (lack of coordination, targeted education, lack of multi-cultural education & sharing research results)
Proposal: Include these aspects of education as integral components of individual action plans. However, no new specific action plan focusing on education will be developed. Education will also be looked at as part of an Administrative Cross-Cutting action plan, renamed as ***Coordinated Management***.

Education is one of the primary mandates of the National Marine Sanctuary Program. It is also an essential tool (strategy) to achieve many of the programs' management objectives. Currently all of the three sanctuaries have education programs aimed at developing community stewardship and resource protection. However, not all of the sites have targeted education program geared to specific user groups or a multi-cultural audience. Under the "Coordinated Management" section of the cross-cutting management plan, the program will look at addressing targeted education across all three sanctuaries, looking for ways that maximize resource protection and administrative efficiency across all three sites.

5A Boundary Modifications
Proposal: This will also be looked at as part of an Administrative Cross-Cutting action plan, renamed as ***Coordinated Management***.

Throughout the public scoping process and the SAC prioritization workshops, comments were received that made it clear that the NMSP needs to resolve the ongoing northern MBNMS/southern GFNMS boundary issue in the JMPR. The program will resolve this issue in the JMPR, but views this particular boundary issue as an administrative tool or strategy to address specific resource management or community outreach issues. Under the "Coordinated Management" section of the cross-cutting management plan, the program will look at addressing this particular MBNMS/GFNMS boundary issue, looking for ways that maximize resource protection and administrative efficiency across all three sites.

8A&B Community Outreach (lack of awareness, including communication and PR plan)
Proposal: Combine 8A&B and develop a Cross-Cutting Action Plan

Creating an informed local, regional and national constituency and developing stewards of the sanctuaries is high program priority. Outreach efforts are directed at improving public awareness and understanding of the significance of the sanctuaries and the need to protect their cultural and natural resources. Outreach efforts are primarily carried out through visitor centers, through existing resource protection, education and research programs, or by Sanctuary Advisory Council members. Currently, the three Sanctuaries do not have a coordinated outreach program that effectively highlights the national system or individual program activities across all three sites. Addressing this issue will involve all three sites in working towards better coordination and cooperation, implementing regional outreach strategies, increasing marketing, media exposure, public awareness and stewardship, while focusing on site-specific needs and targeted audiences. Although Community Outreach may be used as a resource management tool, all three

sites would like to develop a cross-cutting action plan specifically for outreach as is supports one of the broader goals of the NMSP in developing public awareness.

Enforcement 11A

Proposal: Include as an integral component of individual action plans, however, no new specific action plan focusing on enforcement will be developed. This will also be looked at as part of an Administrative Cross-Cutting action plan, renamed as ***Coordinated Management***.

Resource protection is one of the primary mandates of the National Marine Sanctuary Program. Educating users about sanctuary regulations and the actual enforcement of regulations are tools that mangers use to protect sanctuary resources. Each of the three sanctuaries rely upon a number of partnerships and cooperative mechanisms to conduct surveillance and enforcement activities. Some of the other agencies involved include: U.S. Coast Guard, National Marine Fisheries Service, National Park Service, Dept. of Interior, State Lands Commission, State Parks Dept. and Dept. of Fish and Game. Sanctuary staff also work directly with user groups to encourage compliance and best management practices. The three sanctuaries will work together under the "Coordinated Management" section of the cross-cutting management plan to look for ways that maximize resource protection and administrative efficiency across all three sites. Where appropriate there will be specific enforcement recommendations in individual action plans.

18A Monitoring

Proposal: change name to ***Ecosystem Monitoring*** and develop a Cross-Cutting Action Plan

Data derived from monitoring provides an important tool for effective resource management. Currently, GFNMS is involved in several marine mammal monitoring programs, shoreline monitoring, intertidal monitoring, coastal ecology relationships monitoring and restoration monitoring. As an offshore site with no land features, CBNMS has its own unique monitoring requirements, including monitoring programs to assess changes and impacts as they occur. With the support of many partners, MBNMS has recently initiated a Sanctuary Integrated Monitoring Network (SIMoN) to address the critical need for the continuous long-term evaluation of the region and resources, and commit to a stable network of ecosystem and issue-based monitoring programs. The monitoring programs at all three sites will be evaluated and coordinated. In addition to the biological, physical and chemical monitoring currently underway, ecosystem monitoring efforts will be focused on addressing resource management issues such as water quality, invasive species, and acoustic impacts while making use of institutional partnerships and volunteer support. Although Ecosystem Monitoring is a resource management tool, monitoring will also be developed as a cross-cutting action plan as it provides valuable information for resource managers involved in decision making.

21A,B&C Partnerships with Agencies (strengthen, formal process for coordination, harbors)
Proposal: Include as an integral component of individual action plans, however, no new specific action plan focusing on partnerships with agencies will be developed.

Establishing partnerships with agencies is a tool or strategy that agencies use to address specific issues. Overlapping jurisdictions, different agency mandates and limited resources necessitate the development of a relationship that brings together multiple agencies for the common purpose of ecosystem management. Currently, all three Sanctuaries have many strong partnerships with other Federal, State and local agencies. These partnerships are critical to effectively addressing resource management issues. Many of these partnerships are defined through Memorandum of Understandings or by other regulatory, consultation and permit review procedures. All three sanctuaries will continue to expand upon existing efforts to partner with agencies to address resource management needs and issues and look for ways to streamline existing regulatory and permit processes, particularly as it relates to the sanctuary requirements across the three sanctuaries. However, no new action plan focusing specifically on partnerships with agencies or developing one standard process for coordination is needed since these partnerships tend to be very issue specific. As such, each sanctuary will address this by considering and including partnerships with agencies as integral tools and strategies of individual action plans. In relations to harbors, the MBNMS will seek to incorporate strategies for coordination with harbors in an action plan. Only one harbor lies adjacent to the GFNMS and this issue is not considered to be a priority. CBNMS is offshore and therefore not applicable. **See MBNMS: Coastal Development.**

22A Partnerships with Community Groups
Proposal: Include as an integral component of individual action plans for all sites. CBNMS will address this as a site-specific issue.

Developing and maintaining a partnership with community groups is a tool or strategy that agencies use to help involve local residents in managing and protecting sanctuary resources. MBNMS and GFNMS will continue to focus on partnerships with community groups and include them, when appropriate, as integral components of individual issue-specific action plans. However, no new action plan focusing on partnerships with community groups will be developed at this time. CBNMS does not have the network of community groups like the other two sites and will develop a specific action. **See CBNMS: Partnerships With Community Groups.**

24A Research
Proposal: Recommendation: Include as an integral component of individual action plans, however, no new specific action plan focusing on research will be developed. This will also be looked at as part of an Administrative Cross-Cutting action plan, renamed as ***Coordinated Management***.

The diversity of habitats and species throughout the three-sanctuary region offers an outstanding opportunity for scientific research on marine ecosystems. Research is used as a tool at all three sites to better understand the status of sanctuary resources and any natural and human induced changes that may be occurring. Most of the research is not conducted by sanctuary staff, but through a variety of cooperative partnerships with other Federal and State agencies, universities

and other organizations. The NMSP will continue its efforts to coordinate and fund research programs to address specific management problems and to enhance resource protection. The three sanctuaries will work together under the "Coordinated Management" section of the cross-cutting management plan to look for ways that maximize resource protection and administrative efficiency across all three sites. Where appropriate there will be specific enforcement recommendations in individual action plans.

Issues Addressed as Site-Specific

19A Motorized Personal Watercraft
Proposal: Develop MBNMS Action Plan. The issue does not affect CBNMS and has been addressed by GFNMS.

Motorized personal watercraft operate in a manner unique among recreational vehicles creating potentially significant impacts on wildlife, water quality and personal safety. In addition to impacting marine resources, there have been conflicts between MPWC users and other recreational ocean users as a result of the noise and operation of MPWCs. Currently, MBNMS has a partial ban on MPWC. This issue will be treated as a site-specific issue for MBNMS to further investigate and characterize impacts on marine resources and issues related to user conflicts. MBNMS originally restricted MPWCs to certain zones in order to protect sanctuary resources, in particular marine mammals and seabirds. The review of MPWC regulations will be necessary as many personal watercraft operate outside the MBNMS' 1992 definition of such craft. **See MBNMS: Motorized Personal Watercraft.**

30A Wildlife Disturbance
Proposal: Develop GFNMS Site-Specific Plan. GFNMS and MBNMS will address this as a site-specific issue and work with CBNMS on implementation strategies for site-specific education and outreach programs.

With the multitude of opportunities for observing and interacting with nature comes the potential for wildlife disturbance which may result in: flushing birds from their nesting sites, trampling tide pools, pinnipeds abandoning pups or potential harassment. This is a priority issue for GFNMS and will be further characterized to determine the best regulatory or non-regulatory tools necessary to address this issue. MBNMS has adopted prohibitions for white shark attraction. Due to a lack of focused strategy on these issues and effective enforcement and education, disturbances to marine mammals, seabirds, and tidepool habitats, continue to be a major issue within the MBNMS and GFNMS, which sanctuary staff believe should be addressed in this Management Plan Review. **See GFNMS & MBNMS: Wildlife Disturbance.**

4B Biodiversity Protection (regional declines in resources and habitats)
Proposal: Combine 4B&C: CBNMS, GFNMS and MBNMS will each develop site-specific action plans.

The goals and objectives set forth by the National Marine Sanctuary Act (NMSA) direct each of the sanctuaries to take an ecosystem-based approach to managing the marine ecosystems. The ecosystems include habitat structure, species assemblages and ecological processes, as well as

humans and their uses that are compatible with resource protection. All three sites will actively pursue protection of the ecosystem and enhance biodiversity through management strategies for program areas such as education, community outreach, monitoring, and research; and addressing human uses activities through regulatory and non-regulatory strategies. **See CBNMS, GFNMS and MBNMS: Biodiversity Protection.**

6A Coastal Armoring

Proposal: Due to the increasing rate of coastal development and subsequent shoreline armoring within its boundaries, MBNMS will combine this issue with 7A Coastal Development and develop a site-specific Action Plan.

Commercial and residential development adjacent is concentrated around the Monterey Bay including the Monterey Peninsula, Marina, Watsonville, Santa Cruz, Half Moon Bay and north to San Francisco. As shorelines naturally erode, adjacent homeowners and businesses are increasingly turning toward shoreline armoring to protect their private property. Coastal armoring can result in the loss of nearshore habitats and displace other human users such as surfing. It may also exacerbate erosion at sites adjacent to the armoring. Certain Coastal armoring projects (below mean high tide) may require review and approval by the MBNMS and thus warrant the development and implementation of comprehensive resource protection strategies. The MBNMS regulations already prohibit any alteration of the seabed with few exceptions. However, the MBNMS may also consider a review of its permitting program to ensure maximum efficiency while maintaining protection of the resources. This issue does not apply to CBNMS. Most of the shoreline along the GFNMS boundary is already protected as part of the Golden Gate National Recreation Area or Pt. Reyes National Seashore and it is not a priority issue. **See MBNMS: Coastal Development.**

7A Coastal Development

Proposal: Due to the increasing human population adjacent to its boundaries, MBNMS will combine this issue with 6A Coastal Armoring and develop a site-specific Action Plan.

Commercial and residential development adjacent is concentrated around the Monterey Bay including the Monterey Peninsula, Marina, Watsonville, Santa Cruz, Half Moon Bay and north to San Francisco. Issues related to increased point and non-point source pollution, loss of nearshore habitat and increased human presence along the shoreline are some of the coastal development concerns the sanctuary will address. Certain coastal development issues may require review and approval by the MBNMS. Specifically certain seabed disturbance activities such as landslide disposal and fiber optic cables warrant development and implementation of comprehensive resource protection strategies. The MBNMS regulations already prohibit any alteration of the seabed with few exceptions. However, the MBNMS may also consider a review of its permitting program to ensure maximum efficiency while maintaining protection of the resources.

In addition, while the MBNMS does not directly regulate dredging itself (i.e. the removal of sediment from the harbors and their channels) it does have a regulatory role in the disposal of dredged materials. The sanctuary works jointly with other State and Federal agencies, such as the California Coastal Commission, the US Army Corps of Engineers, EPA, the Regional Water

Quality Control Board, National Marine Fisheries Service, and US Fish and Wildlife Service to review and permit dredge disposal within the MBNMS. These reviews minimize impacts to sanctuary resources while allowing the continued operation of our critical local harbors. The MBNMS will initiate a review of processes to consider dredge disposal to ensure value-added, proper resource protection, improved coordination with other agencies and efficient allocation of time and resources. **See MBNMS: Coastal Development.** This issue does not apply to CBNMS. Most of the shoreline along the GFNMS boundary is already protected as part of the Golden Gate National Recreation Area or Pt. Reyes National Seashore and it is not a priority issue.

29A Water Quality
Proposal: Develop site-specific action plans for CBNMS, GFNMS and MBNMS due to distinct water quality issues and conditions in each sanctuary.

There is agreement between the SAC s and staff that water quality is a high priority issue at all three sites. It is also recognized that the three sites are at different places in terms of addressing water quality issues. The MBNMS already has a Water Quality Protection Program and is starting to implement four detailed action plans addressing urban runoff, marinas and boating activities, regional monitoring and data sharing, and agriculture and rural lands. Both GFNMS and CBNMS have collected some baseline water quality data, but to date have not developed water quality protection plans. It was determined that each site will continue efforts to develop and/or implement site-specific water quality plans to address local and regional needs. The sites will look at opportunities to increase coordination and collaboration across the three sites.

1A Acoustic Impacts
Proposal: An issue specific action plan will not be developed at this time. MBNMS will address this as a site-specific issue as part of its ecosystem monitoring program (which is listed as, **Cross-Cutting: Ecosystem Monitoring**). At this time, it is not a priority issue for CBNMS or GFNMS.

Anthropogenic noise and pressure waves may be impacting living marine resources in the sanctuaries. Anthropogenic sources of noise include: large commercial shipping traffic such as container ships, freighters, barges and tankers, recreational and commercial boats; military low frequency testing; research activities; and aerial overflights. MBNMS has been involved in evaluating and requesting limits or alterations to specific proposals to use acoustic devices in the region, such as the Navy's recent Low-Frequency Array proposal, but has not addressed the overall issue of cumulative noise impacts. Acoustic impacts will be addressed by the MBNMS through their ecosystem monitoring program.

3A Aquaculture
Proposal: Develop GFNMS Site Specific Plan.

Sanctuary staff recommends aquaculture as a priority issue to be addressed in the GFNMS site-specific management plan. Currently, aquaculture activities in the GFNMS are limited to oysters grown on tracts of tidelands in Tomales Bay, leased from State Lands Commission, and regulated by the Dept. of Fish and Game. GFNMS would like to develop a framework to look at

impacts from current and potential future aquaculture activities. The GFNMS is concerned about potential threats from aquaculture activities including: the introduction of exotic/invasive species, disturbances to the seabed, water quality impacts and the introduction of genetically modified species. MBNMS already has a permit process in place to review discharges from aquaculture activities and its current management plan allows the MBNMS to develop regulations for aquaculture, should problems arise in the future. Specific aquaculture issues that involve exotic/invasive species introduction and water quality will also be addressed through other action plans. There are currently no aquaculture facilities in the CBNMS.

28A Vessel Traffic
Proposal: Develop GFNMS Site-Specific Plan. MBNMS has recently addressed this issue. CBNMS is primarily concerned with oil spill contingency planning, which will be addressed. **See Cross-Cutting: Emergency Response and Contingency Planning.**

Vessel traffic within the GFNMS was a major issue of concern during the designation process in 1981 and remains so today. Historically, the total number of spills from transiting vessels is rather small in number, but the potential impacts may be enormous given the number and volume of vessels, and the hazardous cargo lane's proximity to the Farallon Islands and the major seabird and marine mammal congregations. 6,000 vessels entered and exited the San Francisco Bay in 1998. A Traffic Separation Scheme (TSS) for the West Coast of the United States separates opposing flows of vessel traffic, into lanes, including a zone between the lanes where traffic is recommended not to be. The separation scheme is voluntary and not all ships comply with the recommendations. Other issues related to vessel traffic include: discharges (including exotic species introductions), vessel strikes, acoustic impacts on living resources and pollution from emissions. GFNMS will continue to explore options to further protect the natural resources from potential impacts from vessel traffic. **See GFNMS: Vessel Traffic.**

4C Biodiversity Protection (focus on resource protection)
Proposal: Combine 4B&C: CBNMS, GFNMS and MBNMS will each develop site-specific action plans.

The goals and objectives set forth by the National Marine Sanctuary Act (NMSA) direct each of the sanctuaries to take an ecosystem-based approach to managing the marine areas. The ecosystems include habitat structure, species assemblages and ecological processes, as well as humans and their uses that are compatible with resource protection. All three sites will actively pursue protection of the ecosystem and enhance biodiversity through management strategies for program areas such as education, community outreach, monitoring, and research; and addressing human uses activities through regulatory and non-regulatory strategies. **See CBNMS, GFNMS and MBNMS: Biodiversity Protection.**

Issues That Will Not be Addressed in the Joint Management Plan Review

20A Oil and Gas Exploration
Proposal: This is not a priority issue to address in this management plan, but the issue will be considered along with "boundary modification"

All three sanctuaries have regulations that prohibit oil and gas development within their existing boundaries. In addition, there are currently no active State or Federal leases in or adjacent to any of the three sanctuaries. Although the sanctuaries foresee no major threat at this time from oil and gas development, there remains a concern about impacts on marine resources from oil spills. The potential threats from oil and gas development will be addressed in conjunction within the individual sites' **Boundary Modifications** issue. The threat of oil spills will be addressed in the **Cross-Cutting: Emergency Response and Contingency Planning**" issue.

17A Military Activities
Proposal**:** No specific action plan will be developed during this management plan review.

There are many human activities that may have impacts on sanctuary resources. Current military activities are either exempt from Sanctuary regulations in certain zones or are addressed through existing consultations on a case-by-case basis. Addressing these issues was not determined to be a priority at this time. All three sanctuaries will continue to review and comment on specific military projects and proposals as they arise, and consult with the military on appropriate mitigation measures. Strategies to monitor acoustic impacts associated with military activities may be incorporated into the **Cross-Cutting: Ecosystem Monitoring** action plan.

25A&B Sanctuary Advisory Council (low public profile & need for more authority)
Proposal: No specific action plan will be developed during this management plan review.

These issues did not rank as high priority issues during the SAC prioritization process. Greater community outreach about the Sanctuaries, including the purpose and membership of Advisory Councils, will be addressed as part of an action plan for **Community Outreach.** Individual Advisory Councils may consider modifications to their charter, if the entire council determines it is necessary.

27A User Conflicts
Proposal: No specific action plan will be developed during this management plan review.

CBNMS, GFNMS and MBNMS will not address this particular issue at this time. The original problem statement voted on by SAC members specifically related to wildlife disturbance issues. As such, elements may be addressed by GFNMS as part of a **Wildlife Disturbance** action plan or by MBNMS as part of **Biodiversity Protection**.

13B Kelp Harvesting
Proposal: No specific action plan will be developed during this management plan review.

MBNMS, GFNMS and CBNMS will not address this as a cross-cutting issue. Kelp harvesting is not considered to be a resource management issue for CBNMS and GFNMS. In 2001, based on advice and input from the SAC and the community, the MBNMS presented recommendations to the Department of Fish and Game for consideration in the 5-year kelp management plan. Most of the recommendations were adopted by the state. The MBNMS will provide additional input when the plan is next reviewed in 2006.

6.0 Cordell Bank Site-Specific Priority Issues

Core JMPR staff (from all three sanctuaries and headquarters) met to determine a proposed final list of priority cross-cutting and site-specific marine resource management issues and problems to address in the JMPR. In making the final decisions on the list of issues, the core group considered the original scoping comments, recommendations from the SACs on site-specific and cross-cutting issues, the results from internal site priority exercises, evaluation criteria (see Appendix 2: JMPR Internal Prioritization Criteria), and national program goals (see Appendix 3: National JMPR Goals). The results from this workshop are summarized in the following section.

6.1 Table: Cordell Bank NMS Priority Issues: a table depicting the original SAC recommended list of Cordell Bank NMS priority issues and a color code that depicts how the NMSP decided to address the issue in the JMPR.

6.2 Cordell Bank NMS Explanations: a description of each issue that will (or won't) be addressed as a cross-cutting issue.

The issues recommended by the SACs are presented in the "bins" reflecting highest, to lowest, priority to the SACs. So, bin 1 issues received the highest ranking by the SACs, bin 5 the lowest.

Table 6.1 CBNMS Priority Issues

	Cordell Bank SAC Recommendations	Program Proposal: Priority: Cross-Cutting Issues	Tool (Strategy)*	Site-Specific	Not Addressing	Summary Explanation
BIN 1	4.0 Biodiversity Protection			✓		CBNMS, GFNMS, and MBNMS plan to develop site-specific actions. **See Site Specific: Biodiversity Protection and Ecosystem Conservation**.
	8.0 Community Outreach		✓			CBNMS, GFNMS, and MBNMS plan to use this as a "tool" to address cross cutting and site-specific issues. CBNMS plans to also develop a site-specific action plan. **See Cross Cutting: Community Outreach.**
	10.0 Education		✓			CBNMS, GFNMS and MBNMS plan to use this as a "tool" to address other cross cutting and site-specific issues. **See Cross Cutting: Education.**
	13.0 Fishing	✓				CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting issue with Habitat Alteration under the renamed category Fishery Resources (kelp harvesting has been eliminated from this issue). **See Cross Cutting: Fishery Resources.**
	14.0 Habitat Alteration	✓				MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue. **Cross Cutting: Fishery Resources.**
	21.0 Partnerships With Agencies				✓	MBNMS plan to address this as a separate site-specific issue. GFNMS and CBNMS plan to continue to use this tool to address other issues, however no new action plan will be developed. **See Cross Cutting: Partnerships with Agencies**.
	22.0 Partnerships With Community Groups		✓			MBNMS and GFNMS plan to continue with their focus on partnerships with community groups, however no new action plan will be developed at this time. CBNMS plans to address this as a site-specific issue. **See CBNMS: Partnerships with Community Groups.**
BIN 2	18.0 Monitoring		✓			CBNMS, GFNMS, and MBNMS plan to use this as a "tool" to address other cross cutting and site-specific issues, and develop site-specific actions. **See Cross Cutting: Ecosystem Monitoring.**
BIN 3	26.0 Emergency Response And Contingency Planning	✓				CBNMS, GFNMS, AND MBNMS plan to address this as a cross-cutting issue. **See Cross Cutting: Emergency Response and Contingency Planning.**
	29.0 Water Quality			✓		CBNMS, GFNMS and MBNMS plan to address this as a separate site-specific issue due to distinct water quality issues and conditions in each sanctuary. **See CBNMS, GFNMS, and MBNMS Water Quality.**

BIN 4	5.0 Boundary Modification		✓			CBNMS, GFNMS and MBNMS plan to use Boundary Modification as a "tool" to address other issues under Cooperative Management and develop site-specific actions. **See Cross Cutting: Cooperative Management.** Site Specific boundary considerations will be addressed for each site under **Site-Specific: Biodiversity Protection and Ecosystem Conservation.**
BIN 5	19.0 Motorized Personal Watercraft				✓	MBNMS plan to address this as a site-specific issue. **See MBNMS: Motorized Personal Watercraft.** This issue is not a high priority for CBNMS and has been resolved by GFNMS.
	28.0 Vessel Traffic				✓	GFNMS plans to address this as a site-specific issue. **See GFNMS: Vessel Traffic.** MBNMS has recently addressed this issue.
BIN 6	No recommendations					
STAFF	2.0 Administration			✓		CBNMS, GFNMS, and MBNMS plan to use this as a "tool" to address site specific and cross cutting issues under the renamed category Coordinated Management. **See CBNMS: Coordinated Management.**
	24.0 Research			✓		CBNMS, GFNMS and MBNMS plan to use this as a cross-cutting "tool" and develop site-specific actions. **See CBNMS: Coordinated Management.**
Totals	**15**	**3**	**5**	**4**	**3**	**Totals:** Of the fifteen priority issues recommended by the CBNMS SAC and staff, we plan to address eight as cross-cutting (issues and tools), four as site-specific, and three will not be addressed at this time.

- This matrix represents a broad range of priority issues evaluated by the all three Sanctuary Advisory Councils. All of the categories indicated below have issues associated with them, however we sorted the marine resource "issues" (e.g. wildlife disturbance) from the "tools" or "strategies" used to address these issues (e.g. education). In consideration of the next step, which is to build a work plan for the new management plan, it will be easier to build a consistent structure if the strategies are built around the "issues" and the "tools" are used to achieve the goals and objectives for each strategy. While issues and tools may be distinct, both will be incorporated into the new management plan in some capacity. How tools will be incorporated into the action plans will be identified in the work plan after SAC discussion of this list of issues.

6.2 CORDELL BANK NMS EXPLANATIONS

This section provides explanations of Cordell Bank NMS site-specific issues that were selected (and not selected) by the NMSP to be addressed in the JMPR. These explanations supplement the summaries from Table 6.1.

The ordering and naming of issues in this section closely follow the order within the CBNMS SAC Recommendation column in Table 6.1, and are further categorized as to how they will be addressed:

- Issues addressed as CBNMS Site-Specific
- CBNMS Staff Issues addressed as Site-Specific Issues
- CBNMS Site-Specific Issues addressed as Cross-Cutting Issues
- CBNMS Issues addressed as Cross-Cutting "Tools"
- CBNMS Site-Specific Issues that will be addressed by another Sanctuary

Each explanation lists the issue title, summarizes the program recommendation, and states the rationale. When possible, the issue explanations use the same issue nomenclature used in the SAC prioritization workshops (i.e., 4B Biodiversity Protection). However, there were instances when similar issues were combined and given a new name.

Issues Addressed as CBNMS Site-Specific

4.0 Biodiversity Protection
Proposal: Develop CBNMS Site-Specific Plan.

The combination of ocean currents and undersea topography support a rich and diverse marine community on and around Cordell Bank. The highest priority for CBNMS is to protect these resources for current and future generations. Public scoping comments were directed to the sanctuaries to actively pursue protection of the ecosystem and enhance biodiversity through management strategies that address the impacts from fishing, anchoring, and exotic species. Cordell will focus on long-term sustainability of the sanctuary resources and biodiversity protection by addressing current and emerging issues through research, education, monitoring and regulatory development to prohibit activities not compatible with the sanctuary's primary goal of resource protection. CBNMS will work towards characterizing the ecosystem, developing a species inventory, and evaluating the significance of Bodega Canyon and its contribution to the productivity of CBNMS.

29.0 Water Quality
Proposal: Develop CBNMS Site-Specific Plan.

One of the most significant features of Cordell Bank is water clarity resulting in high photopenetration. In addition, the system is largely undisturbed resulting in good water quality contributing to seasonal primary productivity. Long -term monitoring would provide useful data on possible seasonal events, fluxuations from natural perturbations and human impacts. CBNMS will work towards establishing a water quality baseline and long-term monitoring.

CBNMS Staff Issues Addressed as Site-Specific Issues

2.0 Coordinated Management
Proposal: Develop CBNMS Site-Specific Plan (also Cross-Cutting).

CBNMS will develop a solid and independent infrastructure while coordinating with the other 2 sanctuaries on improved operational and management effectiveness and efficiency. CBNMS has dedicated its financial and staff resources to the development of a strong research and monitoring program. CBNMS is managed by the GFNMS manager and an on-site assistant manager. The first full time staff person was hired in 1995, but was funded by the GFNMS. In 2000, two additional staff were hired. Although this was not a priority issue for the CBNMS SAC, development of an independent infrastructure is a high priority for the staff.

24.0 Research
Proposal: Develop CBNMS Site-Specific Plan (also Cross-Cutting under Coordinated Management).

Research activities have been the cornerstone of CBNMS. Research will continue to be a high site priority and a cross-cutting priority. CBNMS' research efforts will be directed at improving an understanding of the sanctuary environment, providing data for management, coordinating efforts between research institutions and disseminating research information to the public. Research is considered a resource management tool, and will be used as such in addressing specific resource management issues in the management plan.

CBNMS Site-Specific Issues Addressed as Cross-Cutting Issues

13.0 Fishing and 14.0 Habitat Alteration
Proposal: Combine these issues, change name to ***Fishery Resources***, and develop Cross-Cutting Plan.

With approximately 200 species of fish and invertebrates harvested in the three sanctuaries, impacts from recreational and commercial fishing to living resources and habitats need to be evaluated and addressed. The sanctuaries will work to define their role in advising and advocating for fishing practices and regulations that are necessary for ecosystem protection. The current areas of concern include: 1) impacts to biomass, primary productivity and trophic disruptions from krill harvesting, 2) impacts to benthic habitat from fishing gear, 3) the sanctuaries' role in evaluating the need for resource protection zones in Federal waters, and 4) the sanctuaries' role in developing research and education programs related to fishing. Habitat alteration has been folded into the "fishery resources" section, as fishing gear impacts on sensitive habitats was the major area of concern.

26.0 Emergency Response and Contingency Planning
Proposal: Develop a Cross-Cutting Plan.

Although emergency response is a concern to CBNMS staff, it has been deferred to the cross-cutting management plan as an issue that should be addressed by all 3 sanctuaries. Due to the location and prevailing sea conditions at Cordell Bank, oil spill response, in particular, is not logistically practical, except for the use of dispersants and burning.

12.0 Exotic/Invasive Species
Proposal: Develop Cross-Cutting Plan.

It is highly unlikely that exotic species would colonize Cordell Bank, however, CBNMS will work jointly with the other sites to evaluate the pathways of exotic species introduction, identify and monitor current levels of invasives, and coordinate efforts to prevent introductions.

CBNMS Issues Addressed as Cross-Cutting "Tools"

8.0 Community Outreach
Proposal: Develop CBNMS Site-Specific Plan (also Cross-Cutting).

CBNMS is unique amongst the three sanctuaries in that it is an offshore site. Building public stewardship is more difficult for a site that is not adjacent to land and require tools and strategies directed at local communities.

10.0 Education
Proposal: Develop CBNMS Site-Specific Plan (also Cross-Cutting under Coordinated Management).

Education is essential in achieving many of the sanctuary's management goals. As a strong research-based sanctuary, CBNMS would benefit from using education as a tool to promote and communicate results of CBNMS' research and monitoring programs. The development of a strong education program is a priority for CBNMS. Education is considered a resource management tool, and will be used as such in addressing specific resource management issues in the management plan.

21.0 Partnerships with Agencies
Proposal: Is not a priority action for this management plan, defer to sanctuary staff to continue to strengthen partnerships and include as part of strategy for individual action plans.

As an offshore site with no land features and no State waters, CBNMS' shared authority is limited to a few agencies such as California Dept. of Fish and Game, National Marine Fisheries Service, Department of Defense and US Coast Guard. Although there is always room for improvement, these working partnerships serve each of the agencies well. Agency partnerships are essential to the success of the sanctuary, and CBNMS will work to strengthen these relationships, but this is not a high priority for the management plan.

22.0 Partnerships with Community Groups
Proposal: Develop CBNMS Site-Specific Plan.

The sanctuaries could not function in the many roles they undertake without the support of community partnerships. All three sanctuaries work together with Sanctuary Advisory Councils, community groups and agencies. Once CBNMS has its own manager, then an association would be useful in assisting the sanctuary in achieving its goals. Collaborative efforts will be made to develop and implement various education, interpretation, outreach and research programs.

18.0 Monitoring

Proposal: Change name to ***Ecosystem Monitoring*** and develop CBNMS Site-Specific Plan (also Cross-Cutting).

Data derived from monitoring provides an important tool for effective resource management. With this in mind, CBNMS has initiated several monitoring programs to assess changes as they occur. In addition to the biological, physical and chemical monitoring currently underway, ecosystem monitoring efforts may be focused on addressing resource management issues such as water quality and invasive species.

5.0 Boundary Modifications
Proposal: Develop CBNMS Site-Specific Plan (also see Cross-Cutting: Coordinated Management).

In addition to efforts to look at "boundary modifications" as a cross-cutting issue, CBNMS will develop a framework to evaluate other areas. Although significant research has been carried out in these areas, and anecdotal information identifies adjacent areas that are rich and productive, CBNMS will analyze the data and determine any added value by including it as part of CBNMS.

CBNMS Site-Specific Issues that will be Addressed by Another Sanctuary

19.0 Motorized Personal Watercraft
Proposal: Develop MBNMS Site-Specific Plan.

Due to the remote location and prevailing sea conditions, MPWC was not considered a priority issue for CBNMS. Anecdotal information from SAC members indicated that this activity has not been sited in the sanctuary, nor perceived as a future threat. Since GFNMS has a complete prohibition on the use of MPWC in sanctuary waters, making it no longer an issue for GFNMS, this issue was directed to MBNMS to address.

28.0 Vessel Traffic:
Proposal: Not a priority for CBNMS, but will be addressed in GFNMS Site-Specific Plan.

Historically, the total number of spills from transiting vessels is relatively small in number, but the potential impacts may be enormous given the number and volume of vessels, the northbound vessel traffic lane's proximity to the sanctuary, and the potential size of a spill. The southeast corner of CBNMS is located approximately 5 nm from the terminus of the northern shipping lanes designated by the U.S. Coast Guard. Vessel traffic entering or leaving San Francisco Bay via the northern route passes through the sanctuary. Given the CBNMS’s inability to affect change at this time (there are no real options for geographically relocating this lane) CBNMS will defer to GFNMS on this issue.

7.0 Gulf of the Farallones Site-Specific Priority Issues

Core JMPR staff (from all three sanctuaries and headquarters) met to determine a proposed final list of priority cross-cutting and site-specific marine resource management issues and problems to address in the JMPR. In making the final decisions on the list of issues, the core group considered the original scoping comments, recommendations from the SACs on site-specific and cross-cutting issues, the results from internal site priority exercises, evaluation criteria (see Appendix 1: JMPR Internal Prioritization Criteria), and national program goals (see Appendix 2: National JMPR Goals). The results from this workshop are summarized in the following section.

7.1 Table: Gulf of the Farallones NMS Priority Issues: a table depicting the original SAC recommended list of Gulf of the Farallones NMS priority issues and a color code that depicts how the NMSP decided to address the issue in the JMPR.

7.2 Gulf of the Farallones NMS Explanations: a description of each issue that will (or won't) be addressed as a cross-cutting issue.

The issues recommended by the SACs are presented in the "bins" reflecting highest, to lowest, priority to the SACs. So, bin 1 issues received the highest ranking by the SACs, bin 5 the lowest.

Table 7.1 GFNMS Priority Issues

	Gulf of Farallones SAC Recommendations	Program Proposal				
		Priority				Summary Explanation
		Cross-Cutting Issue	Tool (strategy)*	Site-Specific Issues	Not Addressing	
BIN 1	4.0 Biodiversity Protection			✓		CBNMS, GFNMS, and MBNMS plan to develop site-specific action plans. **See CBNMS, GFNMS, and MBNMS Biodiversity Protection and Ecosystem Conservation**.
	5.0 Boundary Modification		✓			GFNMS and MBNMS plan to use Boundary Modification as a "tool" to address other issues under Coordinated Management. **See Cross Cutting: Coordinated Management.** Site-specific boundary considerations will be addressed for each site under **Site Specific: Biodiversity Protection and Ecosystem Conservation.**
	8.0 Community Outreach		✓			CBNMS, GFNMS, and MBNMS plan to use community outreach as a "tool" to address cross-cutting issues. There will also be a site-specific action plan. **See Cross Cutting: Community Outreach.**
	11.0 Enforcement		✓			CBNMS, GFNMS, and MBNMS plan to use enforcement as a "tool" to address other resource management issues. Each site will develop site-specific action plans under the category Coordinated Management. **See Cross Cutting: Coordinated Management**.
	12.0 Exotic Species	✓				MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue. **See Cross Cutting: Exotic/Invasive Species.**
	13.0 Fishing	✓				MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue with Habitat Alteration under the renamed category Fishery Resources (kelp harvesting has been eliminated from this issue). **See Cross Cutting: Fishery Resources.**
	18.0 Monitoring		✓			CBNMS, GFNMS, and MBNMS plan to use monitoring as a cross cutting "tool" to address other issues, and develop site-specific actions. **See Cross Cutting: Ecosystem Monitoring.**
	20.0 Oil And Gas Development				✓	CBNMS, GFNMS, and MBNMS do not believe this is a priority issue at this time since all three sanctuaries already prohibit oil and gas development. Potential impacts from oil and gas development will be addressed under **GFNMS, MBNMS: Boundary Modification** and oil spill clean-up will be addressed under **Cross-Cutting: Emergency Response and Contingency Planning.**
	21.0 Partnerships With Agencies				✓	GFNMS and CBNMS plan to continue their focus on partnerships with agencies; however, no new action plan will be developed at this time. **See GFNMS: Partnerships with Agencies**.

	26.0 Emergency Response And Contingency Planning	✓				GFNMS plans to develop a site-specific action plan. **See GFNMS: Emergency Response and Contingency Planning.** CBNMS, GFNMS, MBNMS will address this as a cross-cutting issue. **See Cross Cutting Emergency Response and Contingency Planning.**
	28.0 Vessel Traffic			✓		GFNMS plans to address this as a site-specific issue. **See GFNMS: Vessel Traffic.** MBNMS has addressed this issue in the past. CBNMS is mainly concerned with oil spill contingency planning. **See Cross Cutting: Emergency Response and Contingency Planning.**
	29.0 Water Quality			✓		CBNMS, GFNMS and MBNMS plan to address this as separate site-specific issues, due to distinct water quality issues and conditions in each sanctuary. **See CBNMS, GFNMS, and MBNMS Water Quality.**
	30.0 Wildlife Disturbance			✓		GFNMS plans to address this as a site-specific issue and work with MBNMS and CBNMS on implementation strategies for their site-specific education programs. **See GFNMS: Wildlife Disturbance.**
BIN 2	24.0 Research		✓			CBNMS, GFNMS and MBNMS will use this as a cross-cutting "tool" and develop site-specific actions. **See Cross Cutting: Coordinated Management.**
BIN 3						No Recommendations
BIN 4	23.0 Radioactive Waste			✓		GFNMS will address this as a site-specific issue. **See GFNMS: Radioactive Waste.**
BIN 5						No Recommendations
STAFF ADDITIONS	2.0 Administration		✓			CBNMS, GFNMS, and MBNMS will use administration as a "tool" to address site specific and cross cutting issues under the renamed category Coordinated Management. **See GFNMS: Coordinated Management.**
	3.0 Aquaculture			✓		GFNMS will address this as a site-specific issue. **See GFNMS: Aquaculture**.
	9.0 Cultural Resources	✓				CBNMS, GFNMS, and MBNMS will address this as a cross-cutting issue and develop site-specific actions. **See GFNMS: Cultural Resources.**
	10.0 Education		✓			CBNMS, GFNMS, and MBNMS will use this as a cross-cutting "tool" and develop site-specific actions. **See GFNMS: Education.**

TOTAL	**19**	**3**	**7**	**7**	**2**	**Totals:** Of the nineteen priority issues recommended by the GFNMS SAC and staff, we plan to address seven as cross-cutting, seven as site-specific, and one will not be addressed at this time.

- This matrix represents a broad range of priority issues evaluated by the all three Sanctuary Advisory Councils. All of the categories indicated below have issues associated with them, however we sorted the marine resource "issues" (e.g. wildlife disturbance) from the "tools" or "strategies" used to address these issues (e.g. education). In consideration of the next step, which is to build a work plan for the new management plan, it will be easier to build a consistent structure if the strategies are built around the "issues" and the "tools" are used to achieve the goals and objectives for each strategy. While issues and tools may be distinct, both will be incorporated into the new management plan in some capacity. How tools will be incorporated into the action plans will be identified in the work plan after SAC discussion of this list of issues.

7.2 GULF OF THE FARALLONES NMS EXPLANATIONS

This section provides explanations of the Gulf of the Farallones NMS site-specific issues that were selected (and not selected) by the NMSP to be addressed in the JMPR. These explanations supplement the summaries from Table 7.1.
The ordering and naming of issues in this section closely follow the order within the GFNMS SAC Recommendation column in Table 7.1, and are further categorized as to how they will be addressed**:**

- Issues addressed as GFNMS Site-Specific
- GFNMS Staff Issues Addressed as Site-Specific Issues
- GFNMS Site-Specific Issues Addressed as Cross-Cutting Issues
- GFNMS Issues Addressed as Cross-Cutting "Tools"
- Issues that will not be addressed in the JMPR

Each explanation lists the issue title, summarizes the program recommendation, and states the rationale. When possible, the issue explanations use the same issue nomenclature used in the SAC prioritization workshops (i.e., 4B Biodiversity Protection). However, there were instances when similar issues were combined and given a new name.

Issues Addressed as GFNMS Site-Specific

<u>4.0 Biodiversity Protection</u>
Proposal: Develop GFNMS Site Specific Plan.

GFNMS encompasses a variety of highly productive marine habitats and supports an abundance of species. The sanctuary contains nursery and spawning grounds for commercially valuable fish and shellfish; is a feeding and/or breeding ground for 36 species of resident and transient marine mammals including the endangered blue and humpback whales, a breeding area for one-fifth of California's harbor seals; is home to the largest congregation of breeding seabirds in the contiguous United States; and home to twenty-five threatened or endangered species. Protection

of the biodiversity of living marine resources is the highest priority for GFNMS, as well as the other two sanctuaries. Gulf of the Farallones will focus on protection of sanctuary resources by addressing current and emerging issues through research, monitoring, education and regulatory development to prohibit activities not compatible with the sanctuary's primary goal of resource protection. GFNMS will also evaluate the ecological linkages between the sanctuary and areas to the north and west.

28.0 Vessel Traffic
Proposal: Develop GFNMS Site-Specific Plan.

Vessel traffic within the GFNMS was a major issue of concern during the designation process in 1981 and remains so today. Historically, the total number of spills from transiting vessels is rather small in number, but the potential impacts may be enormous given the number and volume of vessels, and the hazardous cargo lane's proximity to the Farallon Islands and the major seabird and marine mammal congregations. 6,000 vessels entered and exited the San Francisco Bay in 1998. A Traffic Separation Scheme (TSS) for the West Coast of the United States separates opposing flows of vessel traffic into lanes, including a zone between the lanes where traffic is recommended not to be. The separation scheme is voluntary and not all ships comply with the recommendations. Other issues related to vessel traffic include: discharges (including exotic species introductions), vessel strikes, acoustic impacts on living resources and pollution from emissions. GFNMS will continue to explore options to further protection for the natural resources from potential impacts from vessel traffic.

29.0 Water Quality
Proposal: Develop GFNMS Site-Specific Plan.

In addition to oil spills, GFNMS is vulnerable to offshore and land-based pollutants from grazing, agricultural effluent, dumping and mercury from abandoned mines. Of special concern are the estuarine habitats of Bolinas Lagoon, Tomales Bay, Estero Americano, and Estero de San Antonio. Existing data indicate that all of the State’s surveyed tidal wetlands, 91% of surveyed estuaries, 81% of surveyed rivers and streams, and 71% of surveyed bays and harbors are impaired or threatened by water pollution. The majority of California’s waterways and small estuarine systems are not monitored by the State on a regular basis, and about 50% of the coastal shoreline has never been monitored by the State. Although water quality is a high priority for each of the three sanctuaries, the site-specific applications require the development of individual site strategies and actions. GFNMS will coordinate with other agencies in establishing baseline water quality parameters for long-term monitoring efforts.

30.0 Wildlife Disturbance
Proposal: Develop GFNMS Site-Specific Plan.

With the multitude of opportunities for observing and interacting with nature comes the potential for wildlife disturbance that may result in: flushing birds, trampling creatures in tide pools and pinnipeds abandoning pups. This is a priority issue for GFNMS and will be further characterized to determine the best regulatory or non-regulatory actions necessary to address these issues.

GFNMS will evaluate the use of regulatory and non-regulatory actions to address wildlife disturbance including expanding volunteer programs.

23.0 Radioactive Waste
Proposal: Develop GFNMS Site-Specific Plan.

From 1946 to 1970, a variety of U.S. government agencies and private research institutions legally dumped more than 50,000 55-gallon drums containing radioactive waste. The radioactive waste dumpsite was suppose to cover approximately 650 sq km, however, many containers were not dumped on target and the actual area of the dump site is around 1,400 sq km. GFNMS will work with other agencies to determine the status of the barrels containing radioactive waste and assess potential impacts of contamination. GFNMS plans to develop public outreach materials and disseminate them to the public on this issue.

GFNMS Staff Issues Addressed as Site-Specific Issues

2.0 Aquaculture:
Proposal: Rename issue as ***Mariculture*** and develop GFNMS Site Specific Plan.

Sanctuary staff recommends aquaculture as a priority issue to be addressed in the GFNMS site-specific management plan. Currently, aquaculture activities in the GFNMS are limited to oysters, scallops and mussels grown on tracts of tidelands in Tomales Bay, leased from State Lands Commission, and regulated by the California Dept. of Fish and Game. GFNMS will work with California Dept. of Fish and Game to develop a framework to look at impacts from current and potential aquaculture. The sanctuary is concerned about potential threats, which may be associated with aquaculture. These threats may include exotic species, disturbances to the seabed, water quality impacts and the introduction of genetically modified species.

2.0 Coordinated Management
Proposal: Develop GFNMS Site-Specific Plan (and Cross-Cutting).

Sanctuary staff suggested administration as a high priority and will address it as both a site-specific and cross-cutting issue. The three sanctuaries will work together to develop increased operational efficiency and program consistency. A cross-cutting plan will be developed for addressing resource management issues through programs such as research, education and enforcement, while developing site-specific actions for these plans. GFNMS will develop a stable infrastructure in which the operating budget and staffing requirements reflect and supports the sanctuary's annual operating plan and new programs as outlined in the management plan. Although Coordinated Management may be considered a tool rather than an issue, it is a priority for the GFNMS site-specific management plan to ensure the development of a solid foundation in which to support increased resource protection.

9.0 Cultural Resources
Proposal: Develop Cross-Cutting Plan.

Submerged cultural resources in the GFNMS primarily consist of shipwrecks. Although there is not a complete inventory, remnants of hundreds of ships are believed to be within sanctuary waters. There is a fairly complete inventory of shipwrecks from: GFNMS, PRNS and GGNRA 1989 shipwreck database; Pacific Coast Shipwreck data base (Robert Schwemmer); California State Lands Commission; and NOAA's Arc internal shipwreck data base. Even with these inventories of shipwrecks in the sanctuary, exact locations and contents of the ships have not necessarily been identified. This information is important to the GFNMS for two reasons: 1) the study of shipwrecks provides a richer understanding of the region's maritime history, and 2) knowing the contents may provide clues to present and future sources of water pollution.

10.0 Education
Proposal: Develop GFNMS Site-Specific Plan (and Cross-Cutting under Coordinated Management).

A strong education component is essential to achieving many of the sanctuary's management objectives. The Farallones Marine Sanctuary Association (FMSA) works collaboratively with GFNMS to implement various education, interpretation and monitoring programs including sponsoring student summits, lectures, teacher training, summer camp, curriculum development for high schools and multicultural programs. Under the "Coordinated Management" section of the cross-cutting management plan, GFNMS will work together with the other three sites in developing a strategy for education programs in all three sanctuaries. Education is considered a resource management tool, and will be used as such in addressing better resource management.

GFNMS Site-Specific Issues Addressed as Cross-Cutting Issues

12.0 Exotic/ Invasive Species
Proposal: Develop Cross-Cutting Plan.

Approximately 234 invasive species have been introduced to the San Francisco estuary. International shipping probably transported more than 90% of non-native invertebrate species in San Francisco Bay. In San Francisco Bay, over 68 million gallons of ballast water have been released annually. This is the primary source of exotic species. All California estuaries are considered threatened by invasive plants including Tomales Bay, Bodega Bay, Bolinas Lagoon and Elkhorn Slough. Along with the relatively close proximity to San Francisco Bay, the most invaded estuary in the world, introduction of exotic species is of concern to GFNMS as well as the other two sanctuaries. Jointly, the sites will evaluate the pathways of exotic species introduction, identify and monitor current levels of invasives, and coordinate efforts to prevent future introductions.

13.0 Fishing
Proposal: Change name to ***Fishery Resources***, and develop Cross-Cutting Plan.

The high diversity and abundance of fish and invertebrate species within the sanctuaries are largely due to the variety of habitats including intertidal mudflats, estuaries, rocky shorelines, and deeper subtidal areas. With over 200 species of fish and invertebrates harvested in the three sanctuaries, impacts from recreational and commercial fishing to living resources and habitats

need to be evaluated. The sanctuaries will work together to define their role in advising and advocating for fishing practices and regulations that are necessary for ecosystem protection. The current areas of particular concern include: 1) impacts to biomass, primary productivity and trophic disruptions from krill harvesting, 2) impacts to benthic habitat from trawling, 3) the sanctuaries' role in the Marine Life Protection Act process and evaluation of potential resource protection zones in Federal waters, and 4) the sanctuaries' role in developing research and education programs related to fishing. Habitat alteration has been folded into the "fishery resources" section, as trawling was the primary area of concern. Also of concern to GFNMS is the trampling that occurs in the intertidal environment during the harvesting of clams and mussels.

26.0 Emergency Response and Contingency Planning
Proposal: Develop a Cross-Cutting Action plan (see Cross-Cutting: Emergency Response and Contingency Planning).

Emergency response within the GFNMS includes events associated with fuel and oil discharges, debris and habitat damage from vessel groundings, vessel sinkings and plane crashes. GFNMS work together with MBNMS to coordinate emergency response and contingency planning. All three sanctuaries participate in the Incident Command System and U.S. Coast Guard's Area Contingency Plan.

GFNMS Issues Addressed as Cross-Cutting "Tools"

5.0 Boundary Modifications
Proposal: Develop GFNMS Site-Specific Plan (also see Cross-Cutting: Coordinated Management)

In addition to efforts to look at "boundary modifications" as a cross-cutting issue the southern boundary of the GFNMS/northern boundary of MBNMS, one of major importance. GFNMS will develop a framework to look at other areas to the north and west to evaluate and identify significant marine resources and/ or potential threats that might warrant sanctuary protection. Although management plan reviews offer an opportunity to re-evaluate sanctuary boundaries, this does not pre-suppose that a change will be proposed.

8.0 Community Outreach
Proposal: Develop a GFNMS Action plan (also see Cross-Cutting: Community Outreach).

GFNMS, in cooperation with the Farallones Marine Sanctuary Association (FMSA), sponsors events, interpretive trips and exhibits. FMSA and GFNMS have worked together in establishing visitor centers in Pacifica and San Francisco. The SAC has acknowledged that the existing outreach programs are important and working well. Community outreach remains a high priority for all three sanctuaries and will be addressed as a cross-cutting issue, with site-specific actions. GFNMS will evaluate the SACs' recommendations to consider increasing: marketing; media exposure; public awareness; multicultural outreach; volunteer programs; and building partnerships with other institutions. Outreach is considered a resource management tool, and will be used as such in addressing resource management.

11.0 Enforcement
Proposal: Develop a GFNMS Action Plan (also see Cross-Cutting: Coordinated Management).

GFNMS has a cooperative agreement law enforcement program and works together with the U.S. Coast Guard, National Marine Fisheries Service, National Park Service, Dept. of Interior, State Lands Commission, State Parks Dept. and Dept. of Fish and Game to enforce sanctuary regulations. The GFNMS also works directly with user groups to encourage compliance and best management practices. The three sanctuaries will work together under the "Coordinated Management" section of the cross-cutting management plan. GFNMS will work together with the other three sanctuaries to develop a framework for enforcement.

18.0 Monitoring
Proposal: Rename issue as ***Ecosystem Monitoring*** and develop GFNMS Site-Specific Plan (also see Cross-Cutting: Ecosystem Monitoring).

Data derived from monitoring provides an important tool for resource management. Over the past 20 years, GFNMS has supported several seabird and marine mammal monitoring programs. Currently, GFNMS is involved in several marine mammal monitoring programs, shoreline monitoring, intertidal monitoring, coastal ecology relationships monitoring and restoration monitoring. In addition to the biological, physical and chemical monitoring currently underway, ecosystem monitoring efforts may be focused on water quality, exotic species and resource management.

21.0 Partnerships with Agencies
Proposal: Is not a priority action for this management plan, defer to sanctuary staff to continue to strengthen partnerships and include as part of strategy for individual action.

The sanctuary overlaps and borders the jurisdictions of sixty other agencies. Coordination and cooperation among the responsible agencies has been important. Some of the agency partnerships GFNMS has include: Golden Gate National Recreation Area, Point Reyes National Seashore, U.S. Fish and Wildlife Service, U. S. Geological Survey, National Marine Fisheries Service, U.S. EPA, California Dept. of Fish and Game, California Water Resources Control Board and California Dept. of Parks and Recreation. Although there is always room for improvement, these working relationships serve most agencies well. Agency partnerships are critical to the success of the sanctuary, and GFNMS and will continue to develop strong relationships.

24.0 Research
Proposal: Develop GFNMS Site-Specific Plan (also see: Cross-Cutting: Coordinated Management).

The diversity of habitats throughout the Gulf of the Farallones offers an outstanding opportunity for scientific research on marine ecosystems. On the mainland, numerous bays, headlands and estuaries offer prime locations for ecological studies of coastal ecosystems. At this time, research in the GFNMS is carried out by USGS, NMFS, U.S. Navy, Universities, CDFG, NPS or PRBO.

GFNMS would like to continue to direct research programs to address management problems and to enhance resource protection. Research is considered a resource management tool, and will be used as such in addressing specific resource management issues.

GFNMS Site-Specific Issues That will not be Addressed in the Management Plan

20.0 Oil and Gas Development
Proposal: not a priority issue for this management plan, but issue of oil and gas development will be considered along with "boundary modification" issue.

Oil and gas development was one of the major reasons for designation of all five of the West Coast National Marine Sanctuaries. No portion of the Offshore Continental Shelf (OCS) has a permanent moratorium on oil and gas leasing and development except some of the waters in National Marine Sanctuaries (by regulation and statute). Currently there are no active leases in or adjacent to CBNMS, GFNMS or MBNMS. The potential threats from oil and gas development will be addressed along with the "boundary modification" issue.

8.0 Monterey Bay Site-Specific Priority Issues

Core JMPR staff (from all three sanctuaries and headquarters) met to determine a proposed final list of priority cross-cutting and site-specific marine resource management issues and problems to address in the JMPR. In making the final decisions on the list of issues, the core group considered the original scoping comments, recommendations from the SACs on site-specific and cross-cutting issues, the results from internal site priority exercises, evaluation criteria (see Appendix 1: JMPR Internal Prioritization Criteria), and national program goals (see Appendix 2: National JMPR Goals). The results from this workshop are summarized in the following section.

> 8.1 Table: Monterey Bay NMS Priority Issues: a table depicting the original SAC recommended list of Monterey Bay NMS priority issues and a color code that depicts how the NMSP decided to address the issue in the JMPR.
>
> 8.2 Monterey Bay NMS Explanations: a description of each issue that will (or won't) be addressed as a cross-cutting issue.

The issues recommended by the SACs are presented in the "bins" reflecting highest, to lowest, priority to the SACs. So, bin 1 issues received the highest ranking by the SACs, bin 5 the lowest.

Table 8.1 MBNMS Priority Issues

	MBNMS SAC Recommendations	NMSP Proposal Priority: Cross-Cutting Issue	Tool (Strategy)*	Site-Specific Issue	Not Addressing	Summary Explanation
BIN 1	4B Biodiversity Protection and Ecosystem Conservation (protect / work with groups)	✓				CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Fishery Resources.**
BIN 1	8B Community Outreach (lack of)		✓			CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting "tool". **See Cross-Cutting: Community Outreach**.
BIN 1	11B Enforcement of Regulations (coordination)		✓			MBNMS plans to address this "tool" by including it as an integral component of individual action plans.
BIN 1	13A Fishing and Kelp Harvesting (clarify role)	✓				Kelp harvesting has been removed from consideration. CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Fishery Resources.**
BIN 1	13B Fishing and Kelp Harvesting (positive programs)	✓				CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Fishery Resources.**
BIN 1	21A Partnerships with Agencies		✓			MBNMS plans to address this 'tool" by including it as an integral component of individual action plans. MBNMS will also address part of this as a site-specific issue. **See MBNMS: Big Sur Coastal Ecosystem Action Plan**.
BIN 1	22A Partnerships with Community Groups		✓			MBNMS plans to continue with its focus on partnerships with community groups and include partnerships as an integral component of individual action plans. However, no new action plan will be developed at this time.
BIN 1	26A Oil Spill Response and Contingency Planning	✓				CBNMS, GFNMS, and MBNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Emergency Response and Contingency Planning.**
BIN 1	29A Water Quality (comprehensive approach to coliform contamination)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Water Quality.**
BIN 1	29C Water Quality (update agreements)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Water Quality.**
BIN 2	4A Biodiversity Protection and Ecosystem Conservation (protect / consider marine reserves)	✓				MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Fishery Resources.**
BIN 2	5B Boundary Modifications (close donut hole off San Francisco)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Biodiversity Protection and Ecosystem Conservation.**
BIN 2	10A Education (targeted education)		✓			MBNMS plans to address this "tool" by including it as an integral component of individual action plans.

	10B Education (multicultural)		✓			MBNMS plans to address this "tool" by including it as an integral component of individual action plans. MBNMS will also address this as a site-specific issue. **See MBNMS: Multicultural Outreach.**
	11A Enforcement (inadequate)		✓			MBNMS plans to address this "tool" by including it as an integral component of individual action plans.
	12A Exotic Species	✓				MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Exotic/Invasive Species.**
	14A Habitat Alteration (declining wetland and riparian habitat)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Water Quality.**
	16C Marine Discharge And Debris (desalination)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Water Quality.**
	18A Monitoring		✓			MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue and develop site-specific actions. **See Cross-Cutting: Ecosystem Monitoring.**
	19A Motorized Personal Watercraft			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Motorized Personal Watercraft.**
	29B Water Quality (WQPP)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Water Quality.**
BIN 3	1A Acoustics				✓	MBNMS does not plan to address this in a separate action plan; however, it will include acoustic monitoring as part of its ecosystem monitoring program. **See Cross-Cutting: Ecosystem Monitoring**.
	3A Aquaculture				✓	Aquaculture activities are not considered to be a high priority resource protection issue in the MBNMS and at this time are adequately addressed through exiting regulations and permits.
	4C Biodiversity Protection and Ecosystem Conservation (work with community)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Biodiversity Protection and Ecosystem Conservation.**
	5B Boundary Modifications (Santa Cruz area)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Biodiversity Protection and Ecosystem Conservation.**
	5D Boundary Modifications (harbor/ urban area permitting)				✓	At this time, dredging of harbors, maintenance, repair, replacement or rehabilitation of docks or piers are exempt from permit review by the sanctuary. Certain permit processes, including dredging issues, will be reviewed as part of the review of all permits and permitting structure. See MBNMS: Coastal Development. However, the MBNMS does not plan to address this issue with a separate action plan at this time
	8A Community Outreach (visitor center/interpretive centers)		✓			MBNMS plans to address this as a site-specific "tool". **See MBNMS: Community Outreach.**
	13C Fishing/Kelp Harvesting (kelp harvest)				✓	MBNMS does not plan to address this issue at this time. Kelp harvesting is managed by CDFG, and has been adequately addressed in the past with the CDGF adoption in 2001 of a 5-year kelp management plan for all state waters, including the MBNMS.

	14B Habitat Alteration (trawling)	✓				MBNMS, CBNMS, and GFNMS plan to address this as a cross-cutting issue. **See Cross-Cutting: Fishery Resources.**
	14D Habitat Alteration (tide pools)			✓		MBNMS plans to address this issue as a site-specific issue. **See MBNMS: Wildlife Disturbance**
	16A Marine Discharge And Debris (dredge disposal)			✓		MBNMS plans to address this issue as a site-specific issue. **See MBNMS: Coastal Development.**
	16B Marine Discharge And Debris (discharges from cruise ships)				✓	This issue was not considered to be a high priority during the MBNMS SAC site-specific issue prioritization workshop. MBNMS does not plan to address this issue at this time.
	30A Wildlife Disturbance			✓		MBNMS plans to address this issue as a site-specific issue. **See MBNMS: Wildlife Disturbance**
BIN 4	5A Boundary Modifications (southern expansion)				✓	MBNMS may consider adding this based on the SAC's analysis of the issue following the meeting on August 1, dedicated to this issue. **See MBNMS: Biodiversity Protection and Ecosystem Conservation**
	6A Coastal Armoring			✓		Due to the steadily increasing rate of shoreline armoring within its boundaries, MBNMS plans to address this as a site-specific issue. **See MBNMS: Coastal Development.**
	14C Habitat Alterations (fiber optic cables)			✓		MBNMS plans to address this as a site-specific issue. **See MBNMS: Coastal Development.**
	16D Marine Discharge And Debris (landslide disposal)			✓		MBNMS plans to address this as a site-specific "tool". **See MBNMS: Big Sur Coastal Ecosystem Action Plan**
	25A Sanctuary Advisory Council				✓	MBNMS does not plan to address this issue at this time. However, the SAC may consider modifications to the charter if they consider it is warranted.
BIN 5	5C Boundary Modifications (harbors)				✓	Based on the SACs recommendation, MBNMS does not plan to address this issue at this time.
	17A Military Activities				✓	Based on the SACs recommendation, MBNMS does not plan to address this issue at this time. Strategies to monitor acoustic impacts associated with military activities may be incorporated into the **cross-cutting: Ecosystem Monitoring** action plan.
Totals	**40**	**7**	**9**	**15**	**9**	**Totals:** Of the SAC's 40 MBNMS priority issues, 7 will be addressed as cross-cutting, 9 will be addressed as tools, 15 as site-specific issues, 9 will not be addressed.

- This matrix represents a broad range of priority issues evaluated by the all three Sanctuary Advisory Councils. All of the categories indicated below have issues associated with them, however we sorted the marine resource "issues" (e.g. wildlife disturbance) from the "tools" or "strategies" used to address these issues (e.g. education). In consideration of the next step, which is to build a work plan for the new management plan, it will be easier to build a consistent structure if the strategies are built around the "issues" and the "tools" are used to achieve the goals and objectives for each strategy. While issues and tools may be distinct, both will be incorporated into the new management plan in some capacity. How tools will be incorporated into the action plans will be identified in the work plan after SAC discussion of this list of issues.

8.2 MONTEREY BAY NMS EXPLANATIONS

This section provides explanations of Monterey Bay NMS site-specific issues that were selected (and not selected) by the NMSP to be addressed in the JMPR. These explanations supplement the summaries from Table 8.1.
The ordering and naming of issues in this section closely follow the order within the MBNMS SAC Recommendation column in Table 8.1, and are further categorized as to how they will be addressed:

- Issues addressed as MBNMS Site-Specific
- MBNMS Site-Specific Issues Addressed as Cross-Cutting Issues
- MBNMS Issues Addressed as "Tools"
- Issues that will not be addressed in the JMPR

Each explanation lists the issue title, summarizes the program recommendation, and states the rationale. When possible, the issue explanations use the same issue nomenclature used in the SAC prioritization workshops (i.e., 4B Biodiversity Protection and Ecosystem Conservation). However, there were instances when similar issues were combined and given a new name.

Issues Addressed as MBNMS Site-Specific

<u>21A Partnerships with Agencies, 16D Marine Discharge and Debris</u>
Proposal: Develop a MBNMS ***Big Sur Coastal Ecosystem Action Plan***

Establishing partnerships with agencies is a tool or strategy that agencies use to address specific issues. Overlapping jurisdictions, different agency mandates and limited resources necessitate the development of a relationship that brings together multiple agencies for the common purpose of ecosystem management. Partnerships with federal, state and local resource protection agencies would be included and integrated into individual issue action plans. However, specifically for the Big Sur coast region, MBNMS will work to provide a framework for a comprehensive multi-agency "Big Sur Coastal Ecosystem Action Plan" integrating resource protection, education and outreach, and research and monitoring activities. Presently, there are 5 other local, state and federal agencies producing new or revised management plans that affect the Big Sur Coast. These can be better coordinated and the roles and joint efforts defined and described. The issue of Caltrans landslide disposal would be addressed in this action plan.

Thus, components of this action plan would be:

1. Multi-agency coordination
2. Caltrans landslide disposal
3. Education
4. Research and monitoring
5. Enforcement
6. Oil spill response

29AB&C Water Quality, 14A Habitat Alteration, and 16C Marine Discharge and Debris
Proposal: Combine into MBNMS ***Water Quality Action Plan***.

The MBNMS Water Quality Protection Program (WQPP) consists of four detailed action plans addressing urban runoff, marinas and boating activities, regional monitoring and data sharing, and agriculture and rural lands. The plans are being partially implemented through pooling of existing staff from various agencies and groups, grant funding, and volunteers. MBNMS needs to develop strategies to complete an assessment of the progress of the WQPP to date and to fully implement all elements of existing water quality plans. MBNMS should also incorporate the WQPP into the MBNMS Management Plan and update the original MOA between local, state, and federal agencies.

Many of the MBNMS's beaches are regularly closed or posted by county health departments as showing elevated levels of contamination from coliform bacteria. This issue was raised repeatedly during the JMPR public scoping process. Strategies need to be developed to define the source of the contamination and implement appropriate prevention measures; these efforts should ultimately be adopted as the next WQPP action plan. MBNMS should also address point source discharge issues, including development and implementation of a regional desalination policy including prohibitions on private desalination facilities.

Additionally, wetlands and riparian corridors adjacent to the sanctuary suffer from degradation due to over development, invasive species, pollution and erosion. While this issue received considerable public input and was highly ranked by the Advisory Council, the MBNMS lacks resources to address the issue now. So, a framework and strategies to address this issue will be developed in the future, and implemented as part of a comprehensive water quality program.

Thus, components of this action plan would be:

1. Fully implement existing WQPP action plans
2. Review and revise MOA with local, state and federal agencies
3. Point source discharges including desalination facilities
4. Beach closures and postings (coliform related) WQ action plan
5. Address wetlands and riparian issues (deferred until future)

4C Biodiversity Protection, and 5A&B Boundary Modifications
Proposal: Combine into MBNMS ***Biodiversity Protection and Ecosystem Conservation Action Plan***.

The goals and objectives set forth by the National Marine Sanctuary Act (NMSA) direct each of the sanctuaries to take an ecosystem-based approach to managing the marine areas. The ecosystems include habitat structure, species assemblages and ecological processes, as well as humans and their uses that are compatible with resource protection. MBNMS will actively pursue protection of the ecosystem and enhance biodiversity through its management strategies for program areas such as education, community outreach, monitoring, and research, and addressing human use activities through regulatory and non-regulatory strategies. MBNMS staff also recommends developing a mechanism or process to focus on long-term sustainability and

look ahead to emerging resource protection issues, as crucial strategies towards the goal of resource protection.

Many issues raised during scoping that relate to protection of the MBNMS ecosystem, warrant consideration of sanctuary boundary modifications to provide consistent and appropriate regional protection. The sanctuary will analyze the potential for including the Davidson Seamount as part of the sanctuary. We received many comments during the public scoping process asking to include the Davidson Seamount, and three other seamounts, within the MBNMS. The recent mission sanctuary staff led to the Davidson Seamount provides data suggesting this unique undersea volcano to the west of the southern portion of the MBNMS supports a diverse array of undisturbed habitat and special marine species that may warrant protection as part of the MBNMS.

In addition, this Action Plan will include examination of portions of the coastline where the sanctuary does not extend to the mean high tide line. The existing San Francisco/Pacifica "donut hole" was exempted by NOAA due to the anticipated discharge plume of the combined sewer overflow component of San Francisco's sewage treatment program, the shipping channel providing access to the San Francisco Bay, and the Golden Gate dredge disposal site associated with the channel. Modifications to the sewer outflow component may warrant re-analyzing this zone for inclusion in the sanctuary to provide consistent coastal protection for the region. Similarly, offshore of the City of Santa Cruz, MBNMS will analyze altering the boundary to include within the sanctuary, the coastline between Point Santa Cruz and the West Small Craft Harbor Jetty tip, which is currently exempted.

On the matter of expanding the MBNMS boundary further south, the SAC ranked that issue low (bin 4). Many of the comments received opposed a boundary shift to the south. Because of renewed local interest in expanding the boundary south, the SAC has scheduled a special meeting for the evening of August 1, in Cambria. Staff will re-evaluate this issue after that meeting, and based on any new SAC input.

Although we will consider all of the potential boundary change options, only some may result in an action plan leading to implementation; others may be discarded after evaluation.

Thus, components of this action plan as presently defined would be:

1. Work closely with local community and related agencies to ensure biodiversity protection and ecosystem conservation are top priorities.
2. Consider boundary changes to protect whole ecosystems:
    a. SF/Pacifica exemption zone
    b. Santa Cruz exemption zone
    c. Davidson Seamount
3. Develop and implement a process to look ahead at emerging issues

<u>19A Motorized Personal Watercraft</u>

Proposal: Develop MBNMS *Motorized Personal Watercraft Action Plan*

Motorized personal watercraft (MPWC), operate in a manner unique among recreational vehicles creating potentially significant impacts on wildlife, water quality and personal safety. In addition

to impacting marine resources, there have been conflicts between MPWC users and other recreational ocean users as a result of the noise and operation of MPWCs. Currently, MBNMS regulations include a partial ban on MPWC. The sanctuary originally restricted MPWCs to certain zones in order to protect Sanctuary resources, in particular marine mammals and seabirds, and defined MPWC specifically. Review of MPWC regulations will be necessary, as many recent designs of personal watercraft are not covered by the Sanctuary's 1992 definition of such craft, which envisioned vehicles carrying only one or two passengers. Related issues include evaluating the need for some or all zones, and the buoy system to demark zones, and the need for effective enforcement and education on the zones to reduce conflicts. This issue will be treated as a site-specific issue for MBNMS to further investigate and characterize impacts on marine resources and issues related to user conflicts.

Thus, components of this action plan would be:

1. Examination and possible revision of MPWC definitions
2. Consideration of allowed uses of MPWC within the MBNMS
3. Analysis of the need for some or all of existing MPWC zones, and the buoy demarcation system
4. The need for effective enforcement and education on the allowable (or prohibited) MPWC uses

<u>6A Coastal Armoring, 14C Habitat Alteration, and 16A Marine Discharge and Debris</u>

Proposal: Combine into MBNMS *Coastal Development Action Plan.*

Commercial and residential development adjacent to the MBNMS is concentrated around: the Monterey Bay, including the Monterey Peninsula, Marina, Watsonville and Santa Cruz; Half Moon Bay and north to San Francisco; and to the least extent, Cambria in the South. Issues related to increased point and non-point source pollution, loss of near-shore habitat and increased human presence along the shoreline are some of the coastal development concerns MBNMS will address. Certain coastal development issues may require review and approval by the sanctuary. Specifically certain seabed disturbance activities such as coastal armoring (seawalls) and fiber optic cables warrant development and implementation of comprehensive resource protection strategies. Sanctuary regulations prohibit any alteration of the seabed with few exceptions, however the MBNMS would also consider a review of its permitting program to ensure maximum efficiency while maintaining protection of the resources.

In addition, while the MBNMS does not directly regulate dredging itself (i.e. the removal of sediment from the harbors and their channels) it does have a regulatory role in the disposal of dredged materials. The MBNMS works jointly with other state and federal agencies, such as the California Coastal Commission, the US Army Corps of Engineers, EPA, the Regional Water Quality Control Board, California Department of Fish and Game, and US Fish and Wildlife Service to review and permit dredge disposal within the MBNMS. The proposed reconstruction of a pier at Moss Landing may also require review of how the location of the pier affects an existing, offshore dredge disposal site. These reviews minimize impacts to sanctuary resources while allowing the continued operation of our critical local harbors. The sanctuary would initiate a review of processes to consider dredge disposal to ensure value-added, proper resource protection, improved coordination with other agencies and efficient allocation of time and resources. This process will involve a review of the Moss Landing disposal site linked to construction of a new Moss Landing pier.

Thus, components of this action plan would be:

1. Coastal Armoring
2. Fiber optic cables
3. Dredge disposal

<u>30AWildlife Disturbance, and 14D Habitat Alteration (alteration of Tide-pool Habitats)</u>
Proposal: Combine into MBNMS ***Wildlife Disturbance Action Plan.***

The MBNMS provides many opportunities for wildlife viewing, including whale watching, bird watching, observation of pinniped pupping and haulout activities, and tidepooling. In addition wildlife habitats along the coastline are subject to aerial over flights for a variety of purposes. With the multitude of opportunities for observing and interacting with nature comes the potential for wildlife disturbance which may result in impacts on marine resources such as: flushing of birds from nesting sites, trampling or over-collecting of tide pools, pinnipeds abandoning pups, potential harassment or even death to wildlife. MBNMS currently addresses some of these issues through regulatory measures such as prohibitions of white shark attraction and marine mammal and seabird harassment, and over-flight restrictions for sensitive areas; and non-regulatory measures such as the Team OCEAN kayaker interpretive enforcement program, and other education and outreach efforts to minimize impacts to living marine resources. However due to a lack of focused strategy on these issues and effective enforcement and education, disturbances to marine mammals, seabirds, and tidepool habitats, continue to be a major issue within the MBNMS which sanctuary staff believe should be addressed in this Management Plan Review. A framework and strategies to address this issue would be incorporated and implemented as part of this site-specific action plan.

Thus, components of this action plan would be:

1. Disturbance of tidepools
2. Marine mammal and seabird disturbances
3. Overflight restrictions

MBNMS Site-Specific Issues Addressed as Cross-Cutting Issues

<u>4A&B Biodiversity Protection, 13A&B Fishing and Kelp Harvesting, and 14B Habitat Alteration</u>

Proposal: Combine into Cross-Cutting ***Fishery Resources Action Plan***.
**See page 11, for a description of this cross-cutting action plan*

<u>26A Emergency Response and Contingency Planning Action Plan</u>
Proposal: Develop a Cross-Cutting ***Emergency Response and Contingency Planning Action Plan***
**See page 11, for a description of this cross-cutting action plan*

<u>12A Exotic Species</u>
Proposal: Develop a Cross-Cutting ***Exotic/Invasive Species Action Plan***
**See page 12, for a description of this cross-cutting action plan*

Issues Addressed as Tools (Strategies)

8B Community Outreach
Proposal: Develop a Cross-Cutting ***Community Outreach Action Plan***
**See page13, for a description of this cross-cutting action plan*

10C Education, 5A Boundary Modification, 11A&B Enforcement
Proposal: Combine into Cross-Cutting ***Coordinated Management Action Plan***
**See page12, for a description of this cross-cutting action plan*

22A Partnerships with Community Groups
Proposal: No new Action Plan would be developed; however, this would be included as an integral component of individual action plans.

Developing and maintaining a partnership with community groups is a tool or strategy that agencies use to help involve local residents in managing and protecting sanctuary resources. MBNMS will continue to focus on partnerships with community groups and include them, when appropriate, as integral components of individual issue-specific action plans. However, no new action plan focusing on partnerships with community groups would be developed at this time.

10B Education (multicultural outreach)
Proposal: Fully implement an MBNMS ***Multicultural Outreach Action Plan.***

MBNMS developed the MERITO (Multicultural Education for Resource Issues Threatening Oceans) programs in direct response to issues and needs identified by the Hispanic community. This program while developed has not been fully implemented. Currently, California State Parks, Elkhorn Slough National Estuarine Research Reserve and the MBNMS have teamed up to launch a pilot education program. Multicultural outreach strategies specifically for the MBNMS will focus on implementing the MERITO program and incorporating MERITO into the management plan**.**

18A Monitoring
Proposal: Develop a Cross-Cutting ***Ecosystem Monitoring Action Plan.***

With the support of many partners, MBNMS has developed a program for a long-term assessment of the region's ecosystem called the Sanctuary Integrated Monitoring Network (SIMoN). The program will address the critical need for the continuous long-term evaluation of the region and resources, and commit to a stable network of ecosystem and issue-based monitoring programs. SIMoN will establish baselines and trends, and assist managers in distinguishing between natural and human-caused resource impacts. MBNMS has extensive investment in the design of the SIMoN program, and will develop strategies to implement this program, as part of this cross cutting action plan. Existing water quality monitoring efforts would also be integrated into SIMoN through collaboration with the MBNMS Water Quality Protection Program and strengthening on the Sanctuary Citizen Watershed Monitoring Network.

*See page__, where this cross-cutting action plan is explained in additional detail.

8A Community Outreach (visitor center)
Proposal: Develop an MBNMS ***Interpretive Facilities Action Plan***.

Comments by the public and the SAC suggested an important issue facing the sanctuary was a lack of awareness of the resource issues facing our local oceans. Facilities for education, research, and outreach provide a critical vehicle for interaction and developing a sense of stewardship with the constituent base of the MBNMS. The MBNMS should develop strategies to provide for the construction of an MBNMS Visitors Center and Regional Interpretive Centers. Other locally driven efforts regarding coastal trails could benefit with a focused effort by the sanctuary.

MBNMS Site-Specific Issues that will not be addressed

1A Acoustic Impacts
Proposal: No new Action Plan would be developed at this time; however, MBNMS would add acoustic monitoring to its ongoing ecosystem monitoring program.

Anthropogenic noise and pressure waves may be impacting living marine resources in the sanctuaries. Anthropogenic sources of noise include: large commercial shipping traffic such as container ships, freighters, barges and tankers, recreational and commercial boats; military low frequency testing; research activities; and aerial over flights. MBNMS has been involved in evaluating and requesting limits or alterations to specific proposals to use acoustic devices in the region, such as the Navy's recent Low-Frequency Array proposal, but has not addressed the overall issue of cumulative noise impacts. We will continue to evaluate and comment on projects and permits with potential acoustic impacts. However we will not develop a specific action plan on this issue. Acoustic impacts will be evaluated by MBNMS through its ecosystem monitoring program.

3A Aquaculture
Proposal: No new Action Plan would be developed at this time.

Currently, at least six aquaculture companies operate within the MBNMS, culturing such diverse species as abalone, algae, steelhead, salmon and shrimp. MBNMS believes the current level of production is relatively small when compared to the size and of the area and the population living along the sanctuary's shores, and given other priorities, aquaculture is not a priority for the development of a separate action plan for this five-year management plan. The sanctuary already has a permit authorization process in place to review discharges from aquaculture activities, and its current management plan allows the MBNMS to develop regulations for aquaculture, should problems arise in the future. No specific action plan will be developed by the MBNMS during this management plan review. However, the MBNMS will continue with the existing permit review process that may involve discharge from aquaculture activities. Key aquaculture issues that involve exotic/invasive species introduction and water quality would also be addressed through other action plans.

5C&D Boundary Modifications (harbor buffers/permits)
Proposal: No new Action Plan would be developed at this time.

This issue was not considered to be a high priority during the MBNMS SAC site-specific issue prioritization workshop. MBNMS will not address this in a specific action plan at this time. However permitting issues may be reviewed as part of the **MBNMS Coastal Development** action plan.

13C Fishing/Kelp Harvesting (kelp harvest)
Proposal: No new Action Plan would be developed at this time.

Kelp harvesting is adequately managed by the California Department of Fish and Game, and is not considered to warrant a separate action plan. In 2001, based on advice and input from the SAC and the community, the MBNMS presented recommendations to the Department of Fish and Game for consideration in the 5-year kelp management plan. Most of the recommendations were adopted by the state. The MBNMS will provide additional input when the State's Kelp Harvesting plan is next reviewed in 2006.

16B Marine Discharge and Debris (discharges from cruise ships)
Proposal: No new Action Plan would be developed at this time.

This issue was not considered to be a high priority during the MBNMS SAC site-specific issue prioritization workshop. MBNMS will not develop a separate action plan on this issue. Rough seas that are characteristic of the area, and lack of sufficient docking infrastructure in harbors will prevent the MBNMS from being a major cruise ship destination. Cruise ship operators scheduled to visit MBNMS destinations in the near future have voluntarily agreed to a zero discharge policy in sanctuary waters, and we would pursue obtaining similar promises from any future ship visits.

25A Sanctuary Advisory Council
Proposal: No new Action Plan would be developed at this time.

Revision of the operation and management of the Sanctuary Advisory Councils as it pertains to the autonomy from NOAA should be addressed through modifications to the SAC's charter. However, it should be noted that the MBNMS SAC is authorized under the National Marine Sanctuaries Act, and local requests for changes are reviewed for consistency by the NMSP headquarters for consistency. This issue was not considered to be a high priority during the SAC prioritization workshops and would expend major staff and budget resources on potential modifications. Advisory Councils may consider and request modifications to their charter if the council determines it is necessary to continue operating the SAC effectively.

17A Military Activities
Proposal: No new Action Plan will be developed at this time.

There are many human activities that may have impacts on sanctuary resources. Current military activities are either exempt from sanctuary regulations in certain zones or are addressed through

existing consultations on a case-by-case basis. Addressing these issues was not determined to require a separate action plan at this time. Concerns regarding military activities in the MBNMS were generally limited to their impact on wildlife through acoustic disturbance or through disturbance of the seabed. MBNMS will continue to review and comment on specific military projects and proposals as they arise, and consult with the military on appropriate mitigation measures. Strategies to monitor acoustic impacts associated with military activities as well as other anthropogenic activities would be incorporated into the cross-cutting: **Ecosystem Monitoring** action plan.

APPENDIX 1

JMPR Internal Prioritization Workshop
Criteria To Be Applied For Issue Prioritization

Criterion #1 – Site Benefits

Responses: **Major – "A"**
Moderate – "B"
Minor – "C"

Does addressing this issue have positive site benefits to natural resources/ecosystem, cultural resources, habitat protection, protection of biodiversity, or resolving user conflicts? If we make progress on this issue will it have major, moderate, or minimal site benefits? *For more insight on this criterion, please refer to the purposes and policies language excerpt from the National Marine Sanctuaries Act located at the end of this document.*

Criterion #2 – Feasibility (Short-Term Staffing/Working Groups)

Responses: **Existing Staff Will Be Used – "A"**
Working Group Will Be Established – "B"
Requires Additional Contract to gather Information – "C"

The NMSP needs to assess how it will address priority issues during the JMPR. What is the ability of the program to address this issue during the JMPR given existing resources: Can it be done with existing staff, through the establishment of a working group, or by externally contracting with another group/organization.

Criterion #3 – Feasibility (Long-term Implementation)

Responses: **Existing Resources Available – "A"**
Additional Resources Needed – "B"
Major Resources Needed – "C"

What makes it feasible to address an issue once the strategies are developed? Having the necessary: people resources/skills, money/funding, infrastructure, and technical capability. What is the ability of the program to address this issue during the implementation phase: existing resources are currently available, additional resources are needed, major resources are needed.

Criterion #4 – Improving Coordination and Operations Between the Sites

Responses: **Major – "A"**
Moderate – "B"
Minor – "C"

Does addressing this issue have positive benefits to improving coordination and operations between the sites? If we make progress on this issue will it have major, moderate, or minimal benefits to improving coordination and operations between the sites?

Criterion #5 – Urgency

Responses: **Develop Strategies – "A"**
Develop a Framework – "B"
Defer Action – "C"

What makes an issue "Urgent"? If the issue/problem is: adversely impacting resources, persistent, getting worse with time/deteriorating, increasing in frequency, wide spatial extent, non-reversible. What is the level of response/urgency needed for this issue: develop strategies to be implemented immediately, develop a framework for action in the management plan, defer any action until after the management plan has been completed.

Purposes and Policies of the National Marine Sanctuaries Act:

1) *to identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance and to manage these areas as the National Marine Sanctuary System;*
2) *to provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner which complements existing regulatory authorities;*
3) *to maintain the natural biological communities in the national marine sanctuaries, and to protect, and, where appropriate, restore and enhance natural habitats, populations, and ecological processes;*
4) *to enhance public awareness, understanding, appreciation and wise and sustainable use of the marine environment, and the natural, historical, cultural, and archeological resources of the National Marine Sanctuary System;*
5) *to support, promote, and coordinate scientific research on, and long-term monitoring of, the resources of these marine areas*
6) *to facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities;*
7) *to develop and implement coordinated plans for the protection and management of these areas with appropriate Federal agencies, State and local governments, Native American tribes and organizations, international organizations, and other public and private interests concerned with the continuing health and resilience of these marine areas;*
8) *to create models of, and incentives for, ways to conserve and manage these areas, including the application of innovative management techniques; and*
9) *to cooperate with global programs encouraging conservation of marine resources.*

APPENDIX 2

NMSP Objectives for an Integrated JMPR Process

• Ensure that the purposes and policies of the National Marine Sanctuaries Act are fulfilled.

• Conduct a “true” public participation process, ensuring as much “self-determination” as possible within the constraints of available resources, programmatic objectives, and regulatory requirements.

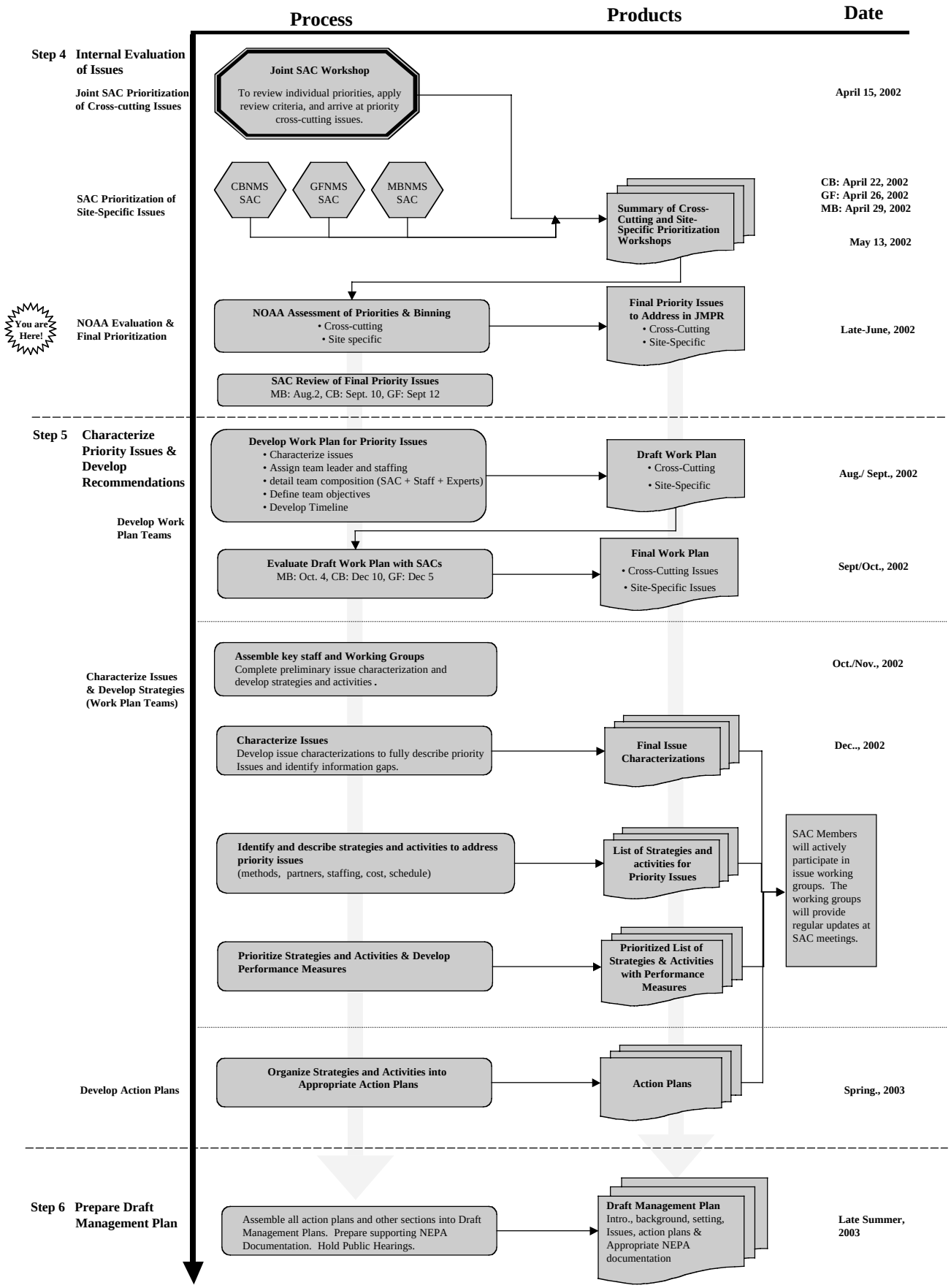
• Establish a “broader” community of interest across all three sanctuaries to promote increased ecosystem thinking and related behavior along the entire coast.

• To maximize efficiency, effectiveness, and appropriate program integration between the 3 sites

• To determine the appropriate distribution of facilities and overall sanctuary program presence across the 3-sanctuary region, without regard to boundaries, that supports the local community sense of place and ownership for marine conservation.

• To answer the question if there are areas of special biological, ecosystem, or economic significance within the sanctuary system where consensus points to consideration for increased protection.

Appendix 3: Joint Management Plan Review for Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries - Next Steps



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