

Sanctuary Condition Reports

Supporting
System-Wide Monitoring
(SWiM)



Water Quality



Habitat



Living Resources



Maritime Archaeological Resources

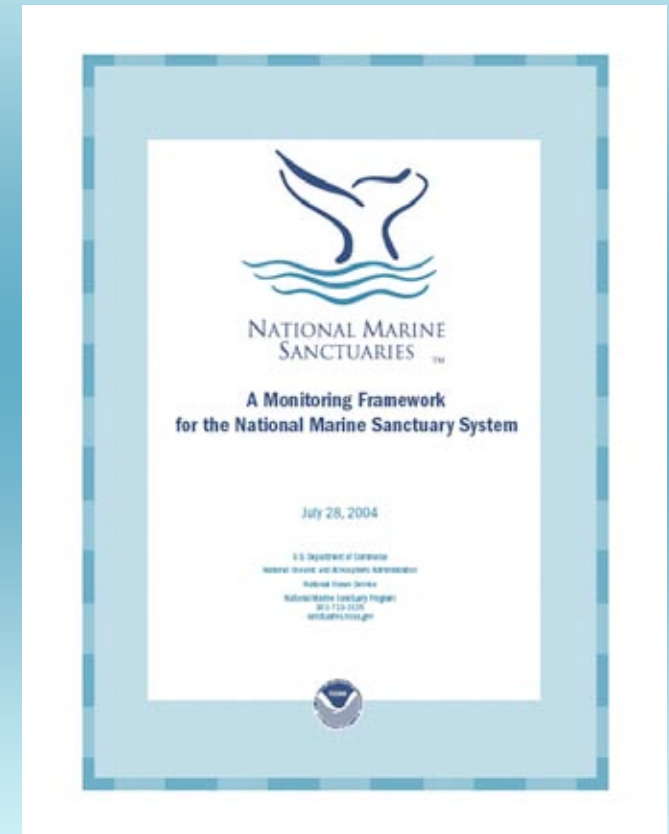


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SWiM Highlights

“A Monitoring Framework for the National Marine Sanctuary System”

- Consistent approach to the design and reporting process of monitoring programs for all sites that enables integration of information into a system-wide monitoring product.
- Tailored monitoring at the local level to track and report the status and trends of natural and cultural resources and human uses.



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Condition Report Highlights

- 17 questions standard among all sites
- Questions relate to:
 - Water
 - Habitat
 - Living Resources
 - Maritime Archaeological Resources
- Goals of Report:
 - Assess the condition of the site and the system
 - Determine if system is achieving its resource protection and improvement goals as reflected in program performance measures



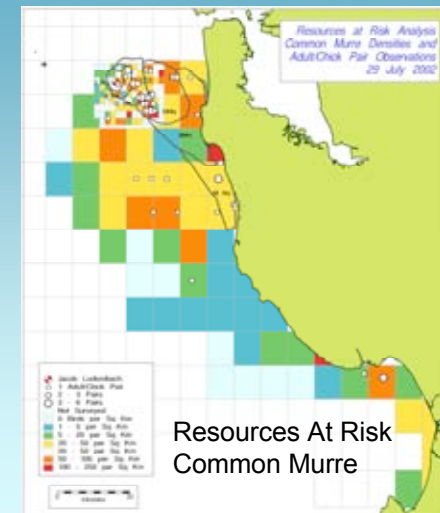
The Details

- Fairly high level review
- Written for policymakers
- Approximately 40 pages
- GFNMS will have two sections
 - Estuarine
 - Outer coast & pelagic
- Northern MBNMS reviewed in MBNMS Report
- Workshop & Formal Review
- Formatting & Design at HQ
- Revisited prior to management plan updates



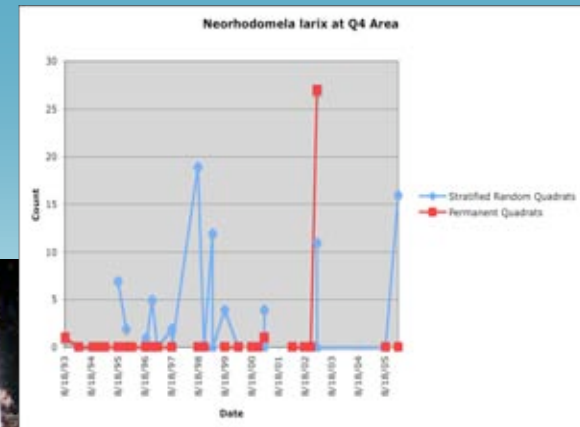
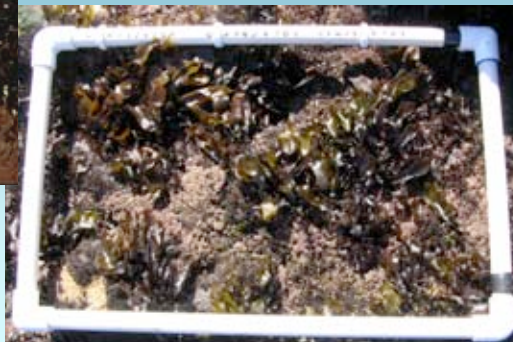
Who is the Audience?

- The report is a supporting document for the Management Plan Review Process and will be used by constituents who desire to participate in that process
- Serve as a reporting tool to be used by Congress & policy makers, particularly within NOAA and DOC
- Identify information gaps for research and management
- Serve as an education and outreach tool



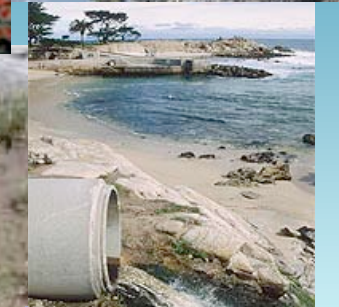
Summary of Findings

- Report is a summary of findings from monitoring & characterization programs; qualitative information
- Not the place for presenting bulk monitoring data
- Quantitative data may not be available to address each question



Outline of Condition Reports

- Overview
- Site History & Resources
- Pressures (Stressors & Issues) on the Sanctuary
- Status & Trends (State) of Sanctuary Resources
- Sanctuary's Response to Pressures
- References
- Appendix & Explanation of Questions



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Report on Status & Trends

Each ecosystem component will be addressed by a set of standard questions, which are answered using a "status & trends" reporting system, basis for judgment statement and supporting text:

Status:					
GOOD	GOOD/ FAIR	FAIR	FAIR/ POOR	POOR	UNDET.
Trends:					
▲	Conditions appear to be improving				
—	Conditions do not appear to be changing.				
▼	Conditions appear to be declining.				
?	Undetermined trend.				
N/A	Question not applicable.				



Standardized Rating Questions

Water Stressors

1. Are specific or multiple stressors, including changing oceanographic and atmospheric conditions, affecting water quality?

This is meant to capture shifts in condition arising from certain changing physical processes and anthropogenic inputs. Factors resulting in regionally accelerated rates of change in water temperature, salinity, dissolved oxygen, or water clarity, could all be judged to reduce water quality. Localized changes in circulation or sedimentation resulting, for example, from coastal construction or dredge spoil disposal, can affect light penetration, salinity regimes, oxygen levels, productivity, waste transport, and other factors that influence habitat and living resource quality. Human inputs, generally in the form of contaminants from point or non-point sources, including fertilizers, pesticides, hydrocarbons, heavy metals, and sewage, are common causes of environmental degradation, often in combination rather than alone. Certain biotoxins, such as domoic acid, may be of particular interest to specific sanctuaries. When present in the water column, any of these contaminants can affect marine life by direct contact or ingestion, or through bioaccumulation via the food chain.

[Note: Over time, accumulation in sediments can sequester and concentrate contaminants. Their effects may manifest only when the sediments are resuspended during storm or other energetic events. In such cases, reports of status should be made under Question 7 - Habitat contaminants.]

Good	Conditions do not appear to have the potential to negatively affect living resources or habitat quality.
Good/Fair	Selected conditions may preclude full development of living resource assemblages and habitats, but are not likely to cause substantial or persistent declines.
Fair	Selected conditions may inhibit the development of assemblages, and may cause measurable but not severe declines in living resources and habitats.
Fair/Poor	Selected conditions have caused or are likely to cause severe declines in some but not all living resources and habitats.
Poor	Selected conditions have caused or are likely to cause severe declines in most if not all living resources and habitats.



Condition Report Workshop

- Date: August 8 & 9, 2007
- Purpose:
 - to Develop State (Status) Section
 - Verify Pressures
 - Verify Response Section
- Four Sessions - Two Each Day:
 - Habitats & Living Resources
 - Water Quality & Maritime Archaeological Resources
- Agenda for each Session
 - Review explanation of question(s)
 - Judge whether the question is relevant
 - Discuss rating, basis for judgment, data availability
 - Agree (consensus noted when possible) on rating & basis judgment
 - Develop report table text to accompany rating



NMS Program Report Card

Status of Resources		Channel Islands	Cordell Bank	Fagatele Bay	Florida Keys	Flower Banks	Gray's Reef	Gulf of the Farallones	HI Isl. Humpback	Monitor	Nearshore	Monterey Bay Offshore	Estuarine	NW HI Islands	Stallwagen Bank	Thunder Bay
WATER																
1	Are specific or multiple stressors, including changing oceanographic and atmospheric conditions, affecting water quality?		—	▼		▼	—			—	—	—	—	▼	—	
2	What is the eutrophic condition of sanctuary waters and how is it changing?		—	—		—	?			N/A	—	—	—	—	—	
3	Do sanctuary waters pose risks to human health?		—	?		?	—			—	—	—	—	—	—	
4	What are the levels of human activities that may influence water quality and how are they changing?		?	▼		▼	—			—	▼	▲	—	▲	—	
HABITAT																
5	What is the abundance and distribution of major habitat types and how is it changing?		▲	?		—	?			▲	—	▲	▼	▼	—	
6	What is the condition of biologically-structured habitats and how is it changing?		▲	—		—	?			N/A	—	▲	▼	▼	—	
7	What are the contaminant concentrations in sanctuary habitats and how are they changing?		?	—		?	—			—	—	—	—	—	—	
8	What are the levels of human activities that may influence habitat quality and how are they changing?		▲	—		▼	?			—	—	▲	—	—	▼	
LIVING RESOURCES																
9	What is the status of biodiversity and how is it changing?		▲	—		—	—			?	▼	▼	—	—	▲	
10	What is the status of extracted species and how is it changing?		▲	—		?	—			N/A	—	▲	—	▲	—	
11	What is the status of non-indigenous species and how is it changing?		—	—		—	▼			?	▼	—	—	?	▼	
12	What is the status of key species and how is it changing?		▲	—		▼	—			N/A	—	—	▼	?	—	
13	What is the condition or health of key resources and how is it changing?		—	▼		▼	▼			N/A	—	▼	?	?	—	
14	What are the levels of human activities that may influence living resource quality and how are they changing?		▲	?		▼	?			—	▼	▲	—	—	—	
MARITIME ARCHAEOLOGICAL																
15	What is the integrity of maritime archaeological resources and how is it changing?		N/A	N/A		N/A	N/A			—	?	?	?	▼	▼	
16	Do maritime archaeological resources pose an environmental hazard and is this threat changing?		N/A	N/A		N/A	N/A			—	—	▼	—	—	—	
17	What are the levels of human activities that may influence maritime archaeological resource quality and how are they changing?		N/A	N/A		N/A	—			—	?	?	—	▲	▼	



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Workshop Participants

Names in bold text have confirmed yes.

Water Quality

Sarah Allen
Rusty Fairy
Toby Garfield
Dominic Gregorio
Ted Grosholz
Kathleen Jennings
Mike Kellogg
Bill Kier
Wimm Kimmerer
Gregg Langlois
John Largier

David Lewis
Tom Moore
Paul Olin
Bob Pavia
Paul Reilly
Karen Reyna
Astrid Scholz
Jon Stern
Tim Stevens
Bill Sydeman
Andrew DeVogelaere

Maritime Resources

Julie Barrow
Bob Schwemmer
Jon Stern
Gordon White
Andrew DeVogelaere

Habitat Resources

Sarah Allen
Ben Becker
Jarret Brynes
Natalie C-Manning
Joe Dillon
Lisa Etherington
Rusty Fairy
Darren Fong
Toby Garfield
Ted Grosholz
Kathleen Jennings
Mike Kellogg
Bill Kier
Gregg Langlois
John Largier
James Lindholm
Amber Mace

Tom Moore
Gillian O'Doherty
Paul Olin
Bob Pavia
Pete Raimondi
Sara Randall
Paul Reilly
Karen Reyna
Astrid Scholz
Jon Stern
Tim Stevens
Bill Sydeman
Mary Yoklavich
Andrew DeVogelaere

Living Resources

Sarah Allen
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Jarret Brynes
Natalie C-Manning
Joe Dillon
Lisa Etherington
Rusty Fairy
Darren Fong
Toby Garfield
Ted Grosholz
Kathleen Jennings
Bill Kier
Wimm Kimmerer
David Lewis
Andrew DeVogelaere

Amber Mace
Bill Sydeman
Gerry McChesney
Huff McGonagal
Tom Moore
Gillian O'Doherty
Paul Olin
Bob Pavia
Pete Raimondi
Steve Ralston
Sara Randall
Paul Reilly
Karen Reyna
Astrid Scholz
Jon Stern
Tim Stevens

Water Quality = 10 participants
Habitat Resources = 13 participants
Living Resources = 12 participants
Maritime Resources = 4 participants



The Review Process

- Data Quality Act
- Peer Review Guidelines for ISI and HISA – June 16, 2005
- Condition Reports = ISI
- Review Requirements
 - Disclosure of comments – must post on web sites
 - Disclosure of reviewers



Timeline & SAC Participation

