Sanctuary Condition Reports

Supporting System-Wide Monitoring (SWiM)

Water Quality
Habitat
Living Resources

Maritime Archaeological Resources
Research • Education • Conservation • Stewardship
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.
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
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:

<table>
<thead>
<tr>
<th>Status:</th>
<th>GOOD</th>
<th>GOOD/FAIR</th>
<th>FAIR</th>
<th>FAIR/POOR</th>
<th>POOR</th>
<th>UNDET.</th>
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<tbody>
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<td>Trends:</td>
<td>▲</td>
<td>Conditions appear to be improving</td>
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<td>Conditions do not appear to be changing.</td>
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<td>Conditions appear to be declining.</td>
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<td>Undetermined trend.</td>
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<td></td>
<td>N/A</td>
<td>Question not applicable.</td>
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### 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.*

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

<table>
<thead>
<tr>
<th>Category</th>
<th>Channel Islands</th>
<th>Coral Reef</th>
<th>Florida Keys</th>
<th>Everglades</th>
<th>Gulf of Mexico</th>
<th>Hill Inlet</th>
<th>Manatee</th>
<th>Myakka River</th>
<th>Nokomis</th>
<th>Port St. Joe</th>
<th>St. Johns</th>
<th>Stuart-Berry County</th>
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<td><strong>WATER</strong></td>
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<td>1. Are specific or multiple stressors, including changing oceanographic and atmospheric conditions, affecting water quality?</td>
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<td>2. What is the eutrophic condition of sanctuary waters and how is it changing?</td>
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<td>3. Do sanctuary waters pose risks to human health?</td>
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<td>4. What are the levels of human activities that may influence water quality and how are they changing?</td>
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<td><strong>HABITAT</strong></td>
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<td>5. What is the abundance and distribution of major habitat types and how is it changing?</td>
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<td>6. What is the condition of biologically-structured habitats and how is it changing?</td>
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<td>7. What are the contaminant concentrations in sanctuary habitats and how are they changing?</td>
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<td>8. What are the levels of human activities that may influence habitat quality and how are they changing?</td>
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<td><strong>LIVING RESOURCES</strong></td>
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<td>9. What is the status of biodiversity and how is it changing?</td>
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<td>10. What is the status of extant species and how is it changing?</td>
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<td>11. What is the status of non-indigenous species and how is it changing?</td>
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<td>12. What is the status of key species and how is it changing?</td>
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<td>13. What is the condition of health of key resources and how is it changing?</td>
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<td>14. What are the levels of human activities that may influence living resource quality and how are they changing?</td>
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<td><strong>MARITIME ARCHAEOLOGICAL</strong></td>
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<td>15. What is the integrity of maritime archaeological resources and how is it changing?</td>
<td>N/A</td>
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<td>16. Do maritime archaeological resources pose an environmental hazard and is this threat changing?</td>
<td>N/A</td>
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<td>17. What are the levels of human activities that may influence maritime archaeological resource quality and how are they changing?</td>
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</table>
## 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
- **Andrew DeVogelaere**
- **David Lewis**
- Tom Moore
- **Paul Olin**
- Bob Pavia
- Paul Reilly
- Karen Reyna
- Astrid Scholz
- Jon Stern
- Tim Stevens
- Bill Sydeman

### 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
- Andrew DeVogelaere
- John Largier
- James Lindholm
- Amber Mace
- Tom Moore
- Gillian O'Doherty
- **Paul Olin**
- Bob Pavia
- **Pete Raimondi**
- **Sara Randall**
- **Bill Kier**
- Wimm Kimmerer
- **Mary Yoklavich**

### Maritime Resources
- Julie Barrow
- Bob Schwemmer
- Jon Stern
- Gordon White
- **Andrew DeVogelaere**

### Living Resources
- Sarah Allen
- **Ben Becker**
- Jarret Brynes
- **Natalie C-Manning**
- Joe Dillon
- Lisa Etherington
- Rusty Fairy
- Darren Fong
- Toby Garfield
- **Ted Grosholz**
- Kathleen Jennings
- **Bill Kier**
- Wimm Kimmerer
- **Mary Yoklavich**
- **Andrew DeVogelaere**

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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