



Condition Reports An Overview

NOAA Office of National Marine Sanctuaries

Leaders in Protecting America's Natural and Cultural Heritage

The National Marine Sanctuary System



Condition Reports

Assessing the status and trends of sanctuary resources



Gulf of the Farallones NMS Condition Report: 2010

Office of National Marine Sanctuaries National Oceanic and Atmospheric Administration





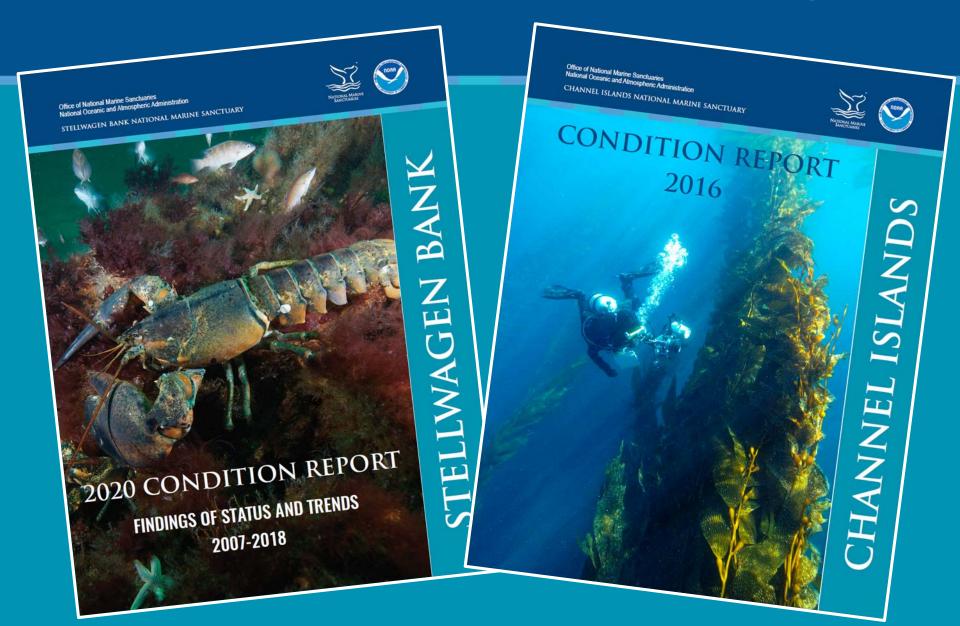
Gulf of the Farallones National Marine Sanctuary

CONDITION REPORT 2010



August 2010

Next Generation of Condition Reports



Purpose and Audience

- Supporting Tool
 - Management plan reviews
- Inform & Educate
 - Community and regional partners, stakeholders, interested members of the public
- Reporting Mechanism
 - NOAA and Congress re: resource protection and improvement goals





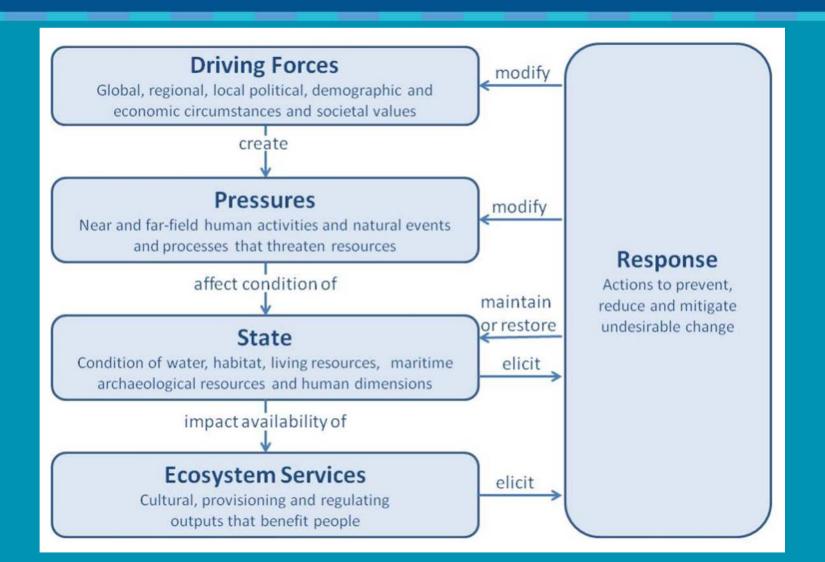


Framework

Driving Forces-Pressure-State-Ecosystem Services-Response (DPSER)



DPSER

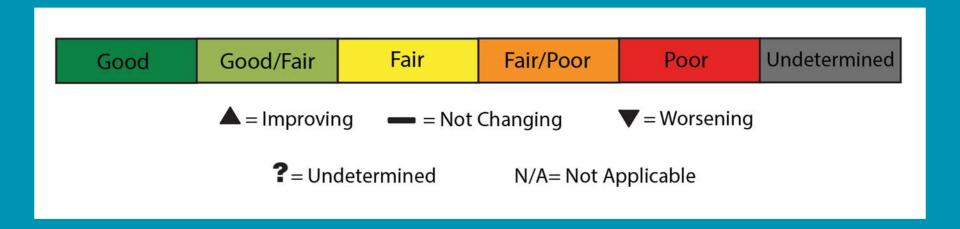


State of Resources

15 Questions

- Human Dimensions
- Water Quality
- Habitat

- Living Resources
- Maritime Heritage Resources



Human Dimensions

What are the levels of human activities that may adversely influence water quality and how are they changing?

What are the levels of human activities that may adversely influence habitats and how are they changing?

What are the levels of human activities that may adversely influence living resource quality and how are they changing?

What are the levels of human activities that may adversely influence maritime heritage resource quality and how are they changing?

Water Quality

What is the eutrophic condition of sanctuary waters and how is it changing?

Do sanctuary waters pose risks to human health and how are they changing?

Have recent changes in **climate** altered water conditions and how are they changing?

Are other stressors, individually or in combination, affecting water quality, and how are they changing?

Habitat

What is the integrity of major habitat types and how is it changing?

What are contaminant concentrations in sanctuary habitats and how are they changing?

Living Resources

What is the status of **keystone** and foundation species and how is it changing?

What is the status of other focal species and how is it changing?

What is the status of **non-indigenous species** and how is it changing?

What is the status of biodiversity and how is it changing?

Maritime Heritage Resources

What is the condition of known maritime heritage resources and how is it changing?

Rating System



Description of Findings

Description of findings statement for a WQ/Human Health given status rating is specific to the Habitat/Integrity question being asked

Water quality does not appear to have the potential to negatively affect human health.

One or more water quality indicators suggest the potential for human health impacts, but human health impacts have not been reported.

Water quality problems have caused measurable human impacts, but effects are localized and not widespread or persistent.

Fair/Poor

Water quality problems have caused severe impacts that are either widespread or persistent.

Water quality problems have caused severe, persistent, and widespread human impacts.

Habitats are in near-pristine condition.

Good/ Good/ Fair Fair/P

Selected habitat loss or alteration is suspected and may degrade some attributes of ecological integrity, but has not yet caused measurable degradation.

Selected habitat loss or alteration has caused measurable, but not severe degradation in some attributes of ecological integrity.

Selected habitat loss or alteration has caused severe degradation in some, but not all attributes of ecological integrity.

Selected habitat loss or alteration has caused severe

degradation in most, if not all attributes of ecological integrity.

The customized statements are available here: https://sanctuaries.noaa.gov/science/condition/rating.html

Ecosystem Services

Cultural (non-material benefits)

- Sense of place
- Non-consumptive recreation
- Consumptive recreation
- Science
- Education
- Heritage

Regulating (buffers to change)

Coastal Protection

Provisioning (material benefits)

- Biotechnology
- Ornamentals
- Commercial Harvest
- Subsistence Harvest
- Water
- Energy

Rating System for Ecosystem Services

Good	The consoity to provide the consustant pervise has remained unaffected or has been restored	
Good	The capacity to provide the ecosystem service has remained unaffected or has been restored.	
Good/Fair	The capacity to provide the ecosystem service is compromised, but performance is acceptable.	
Fair	The capacity to provide the ecosystem service is compromised, and existing management would require enhancement to enable acceptable performance.	
Fair/Poor	The capacity to provide the ecosystem service is compromised, and substantial new or enhanced management is required to restore it.	
Poor	The capacity to provide the ecosystem service is compromised, and it is doubtful that new or enhanced management would restore it.	

Confidence Scores Evidence + Agreement = Confidence

Step 1: Rate Evidence

Consider three categories of evidence typically used to make status or trend ratings: (1.) data,(2.) published information and(3.) personal experience.

Evidence Scores				
Limited	Medium	Robust		
Limited data or published information, and little or no substantive personal experience.	Data available, some peer reviewed published information, or direct personal experience.	Considerable data, extensive record of publication, or extensive personal experience.		

Step 2: Rate Agreement

Rate agreement among those participating in determining the status and trend rating, or if possible, within the broader scientific community. Levels of agreement can be characterized as "low," "medium" or "high."

Step 3: Rate Confidence

Using the matrix below, combine ratings for both evidence and agreement to identify a level of confidence. Levels of confidence can be characterized as "very low," "low," "medium," "high" or "very high."

"Medium" High agreement Limited evidence	"High" High agreement Medium evidence	"Very High" High agreement Robust evidence
"Low" Medium Agreement Limited evidence	<i>"Medium"</i> Medium agreement Medium evidence	"High" Medium agreement Robust evidence
"Very Low" Low agreement Limited evidence	"Low" Low agreement Medium evidence	"Medium" Low agreement Robust evidence

Evidence (type, amount, quality, consistency) ->



EXAMPLE:

This symbol indicates the condition was rated "fair" with "medium confidence" and a "worsening" trend with "very high confidence."



Fair



Process: Major Milestones and Approximate Timing

Year	Season	Milestone
2021	Winter	Kick off
2021	Winter – Fall	Indicator development, data compilation
2021	Fall	*Potential* indicator vetting workshop
2021 - 22	Winter - Spring	Preparation of indicators & data
2022	Spring	Status & Trends Workshop
2022	Spring - Fall	Report drafting
2022 - 23	Fall – Spring	2 Review Periods
2023	Summer	Finalize and release report

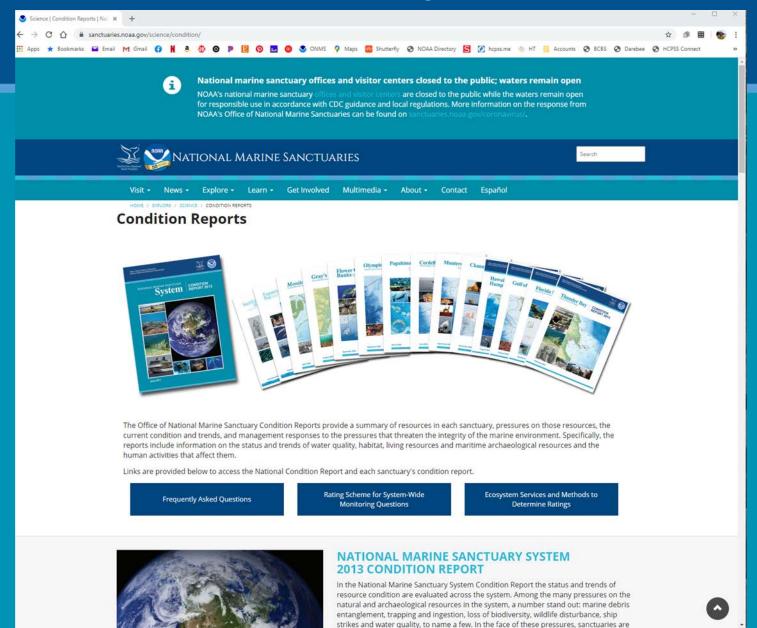
Process: Consultation With Experts



Process: Two Reviews

- 1. Expert Review
- 2. Invited Review
 - 3. Peer Review

https://sanctuaries.noaa.gov/science/condition



Questions?

Kathy.Broughton@noaa.gov

Jan.Roletto@noaa.gov







http://sanctuaries.noaa.gov