Ecosystem-based Management Initiative

Monterey Bay National Marine Sanctuary
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Presentation outline

1. Ecosystem-based management Initiative
2. Progress & findings from information gathering
3. Collaborative approach to facilitate research to inform the EBM Initiative
1. Identify intersection points between our research needs for the EBM Initiative and PFMC’s research needs for the Fishery Ecosystem Plan

2. Participation of PFMC members in our process to identify joint research needs related to ecosystem-based management and ecosystem-based fishery management
1. Our EBM Initiative
Background

- Joint Management Plan Review
- MPA planning process
- Agency and stakeholder feedback

Transition to EBM Initiative
Changes in MBNMS over past 10 years

2000
2003
2006
2007
2009
now
MBNMS

Today

>25 agencies & authorities

Shipping lanes
Essential Fish Habitat
Dredge Disposal areas
Military zones
Areas of Biol Significance

Emerging demands

Global threats
EBM Initiative Goals

1) Maintain/restore marine ecosystem health and function;

2) Ensure protection of unique and rare features;

3) Facilitate research to differentiate between natural variation versus human impacts;

4) Facilitate ecologically and economically sustainable uses, including fisheries.
Ecosystem-Based Management (EBM) Initiative

$16 billion socioeconomic value
11 coastal watersheds
10 habitats
8,000+ species
7,000+ invertebrates
450 plants
270 birds
345 fishes
33 mammals

Recreation & tourism
Fishing
Trade

it's all interconnected in...Our Ecosystem

Spatial Management

MBNMS' complex management framework & unique opportunities

25 different management zones and regulations
24 locally-based research institutions
7 different regulatory agencies
8 million stakeholders with different interests

Globally, the ocean is facing increasing demands and impacts on marine life.
Locally, MBNMS can benefit from a collaborative multi-sector management approach, to address existing and potential threats.

Why use EBM?

Integrate existing approaches and priorities for protection and sustainable use of marine ecosystems across multiple jurisdictions and stakeholder interests.

Proactive measures to prevent harmful impacts and address threats to marine ecosystems within Monterey Bay National Marine Sanctuary.

Multiple uses will inform a collaborative planning process to minimize user conflicts, while maximizing synergy and collaboration among different regulatory agencies.
Basic steps of EBM Initiative

1. Information gathering
2. Propose & implement strategies with partners
3. Monitor, adapt, assess
**Information Gathering**

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Examples of external processes that influence our EBM Initiative

2011
- EFH Review
- MLPA Review
- Areas of Biological Significance - Water Quality

2012
- Port Access Route Study

2013
- Fisheries Ecosystem Plan

EBM INITIATIVE
INFORMATION GATHERING
2. Update on progress & findings from information gathering stage
Goal 1. Maintain/restore ecosystem health

Integrated Ecosystem Assessment

Integrated Ecosystem Assessment
The Science Needed for a Healthy California Current

http://www.nwfsc.noaa.gov/publications/
What is the economic value of different human uses around Monterey Bay?
Goal 2. Protect unique and/or rare features.

1. Expert workshop May 2011
2. Summary of workshop underway
3. Follow up information gathering on unique/rare features
Goal 2. Protect unique and/or rare features.

Key findings

1. Scientists had difficulty applying consistent definitions for unique/rare, since criteria were feature specific.

2. Scientists suggested defining features in context of ecosystem health.

3. Many features were identified as important for ecosystem health but there wasn’t enough information - call for research.
1. Expert workshop October 2010

2. Proceedings will be published in National Marine Sanctuary Conservation Series
Goal 3. Facilitate research ... 

Key Findings

1. Integrated & transparent system of spatial management would facilitate research

2. Regulations and permitting requirements limit ability to do marine science

3. Many science questions are difficult to pursue given spatial management (e.g., ocean acidification, impact of bottom trawling, impacts of acoustics)

4. Areas are needed to study both applied and basic science questions

5. Long-term cooperative research sites (e.g., sentinel sites) needed

6. Scientists as stakeholders
Goal 4. Facilitate sustainable uses...
Participation in Local Catch Monterey

Local Catch Monterey is a CSF (Community Supported Fishery).

We offer CSA-style weekly shares of fresh local fish to our members.
Goal 4. Facilitate sustainable uses...

Participation in CA Halibut Research Design

1. Evaluate the potential socio-economic and marine ecosystem impacts of trawling and hook-line based fishing for halibut in Monterey Bay
2. Seeking funding for study
3. Approach for facilitating research to inform our EBM Initiative
Information gathering points to common EBM research needs
Focal research objectives for the EBM Initiative

1. Identify opportunities to promote long-term cooperative research sites (e.g., sentinel sites)

2. Identify opportunities to address priority science questions which cannot be addressed given current spatial management
Continue working with scientists, agencies, NGOs, stakeholder groups

Identify potential strategies with partners

Examine feasibility
Opportunities for collaboration

1. Identify intersection points between our research needs for the EBM Initiative and PFMC’s research needs for the Fishery Ecosystem Plan

2. Participation of PFMC members in our process to identify joint research needs related to ecosystem-based management and ecosystem-based fishery management
What are we working toward?

*Improved ecosystem health*