



Monterey Bay National Marine Sanctuary

Ecosystem-based Management Initiative Update

Sanctuary Advisory Council

October 20, 2011



Outline



1. Seascape changes leading to the EBMI
2. Progress on four EBMI goals
3. Engagement with the Fisheries Council
4. Research coordination with the Council and NOAA Fisheries
5. Next steps

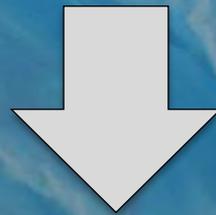


Background



2000

- Joint Management Plan Review
- MPA planning process
- Agency and stakeholder feedback
- Changes in management seascape



2009

Transition to EBM Initiative



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.

Changes in MBNMS over past 10 years

2000

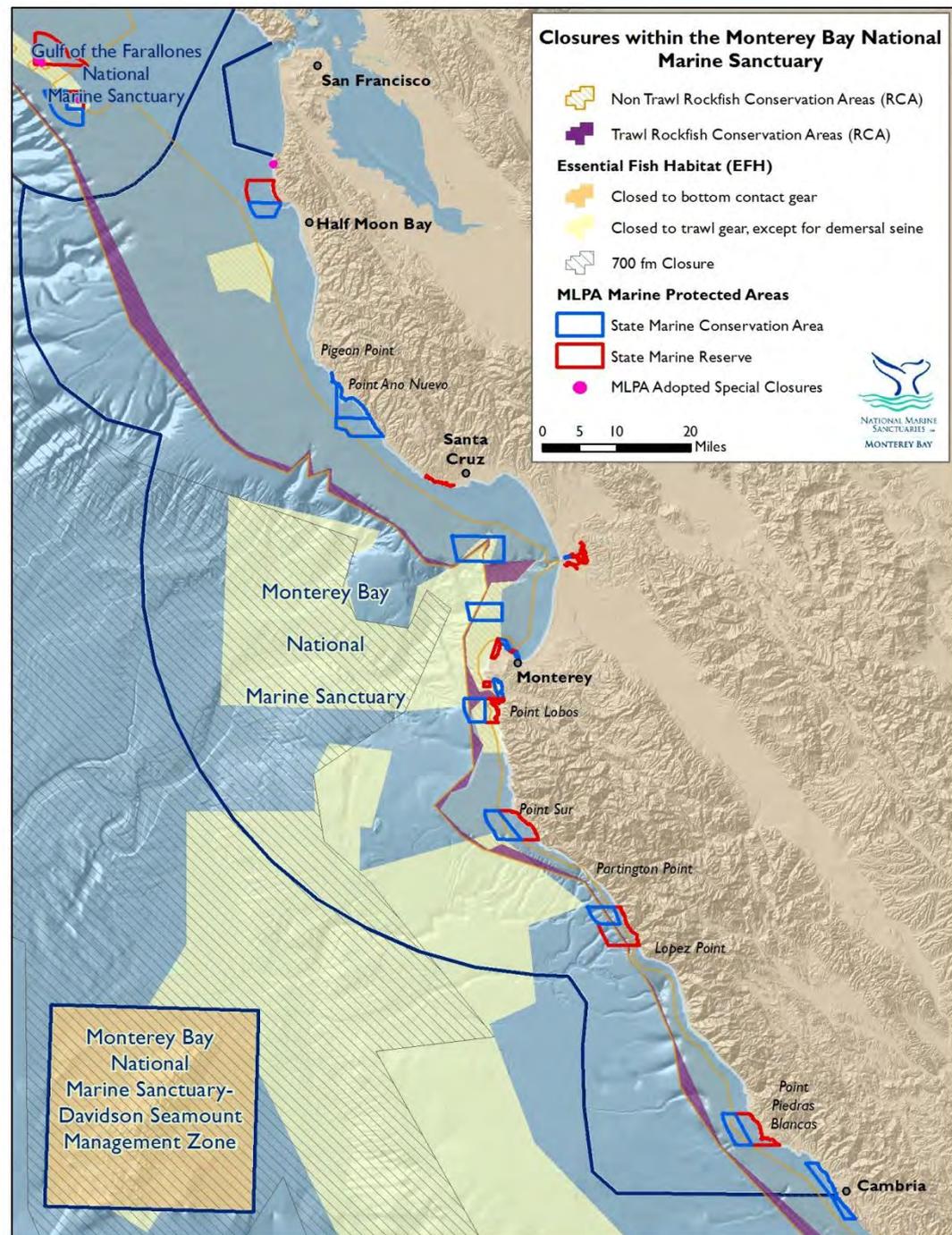
2003

2006

2007

2009

now

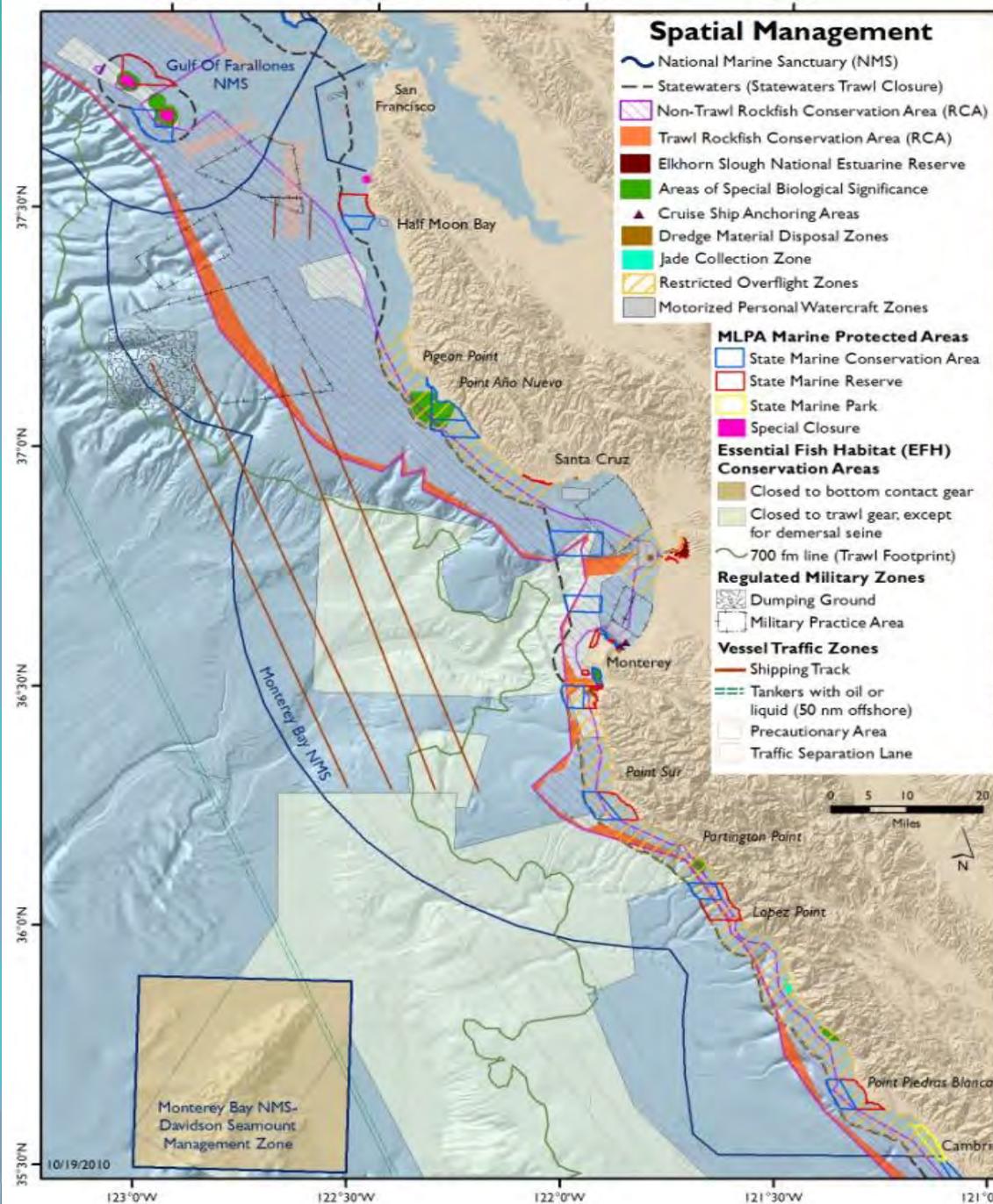


MBNMS *Today*

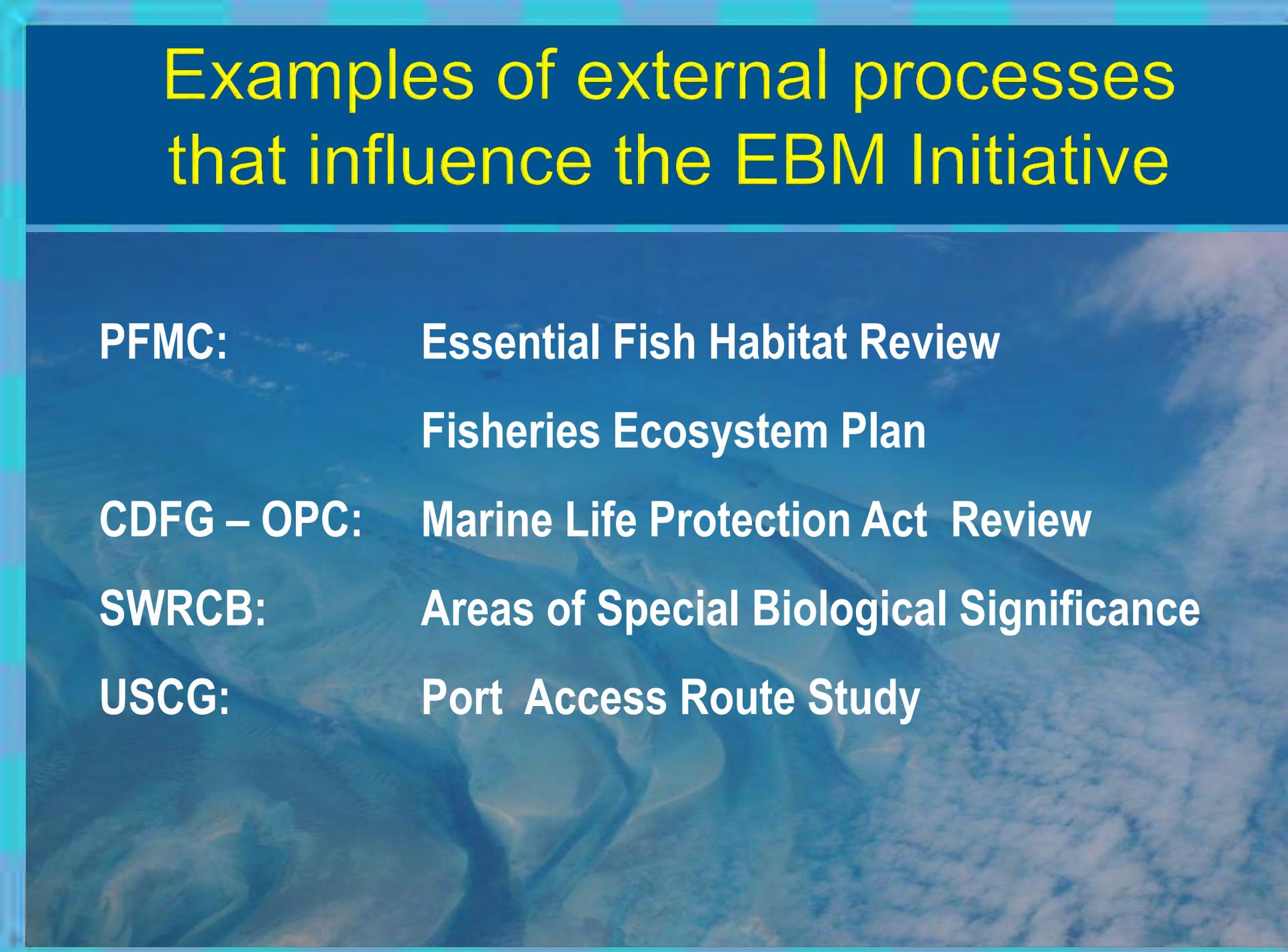
- More than 25 agencies & authorities:

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

- Emerging demands
- Global threats



Examples of external processes that influence the EBM Initiative



PFMC:	Essential Fish Habitat Review Fisheries Ecosystem Plan
CDFG – OPC:	Marine Life Protection Act Review
SWRCB:	Areas of Special Biological Significance
USCG:	Port Access Route Study



Basic Schedule



Information gathering

Propose & implement strategies with partners

Monitor, adapt, assess



2011

2012

2013

2014

2015



Current Progress on Four EBMI Goals

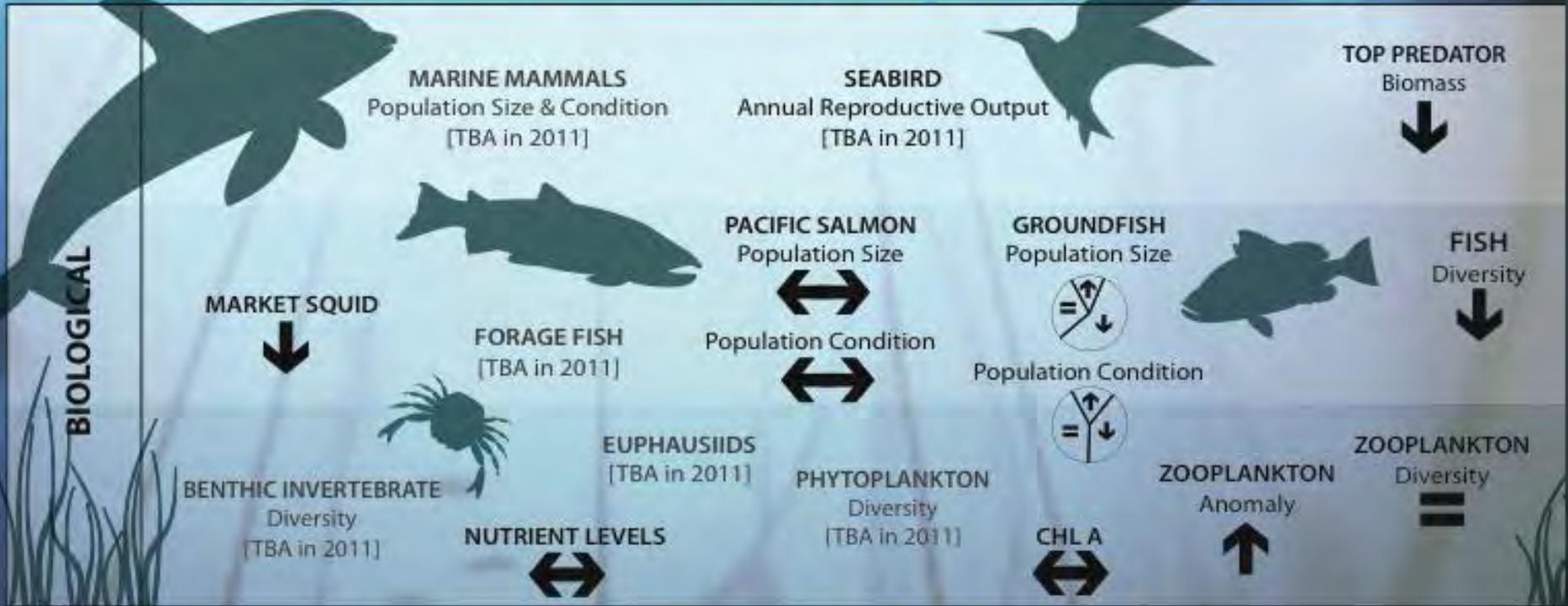
Goal 1. Maintain and restore ecosystem health

Integrated Ecosystem Assessment

- Coordination with NMFS Science Centers
- Planning for input on ecosystem services, indicators, thresholds



Status of the California Current Ecosystem at a Glance



PACIFIC DECADAL OSCILLATION (PDO)



Generally MORE
Productive and COLDER ocean conditions

Average condition

Generally LESS
Productive and WARMER ocean conditions

NORTHERN OSCILLATION INDEX (NOI)



Generally MORE
Productive and COLDER ocean conditions

Average condition

Generally LESS
Productive and WARMER ocean conditions

SEA SURFACE TEMPERATURE



Generally LESS
Productive and WARMER ocean conditions

Average condition

Generally MORE
Productive and COLDER ocean conditions

KEY

- ↓ Downward Trend
- ↑ Upward Trend
- = No Trend
- ↔ Variable Coastwide
- 2010 Value
- ← Trend
- Range from Last 5 Yrs

PHYSICAL

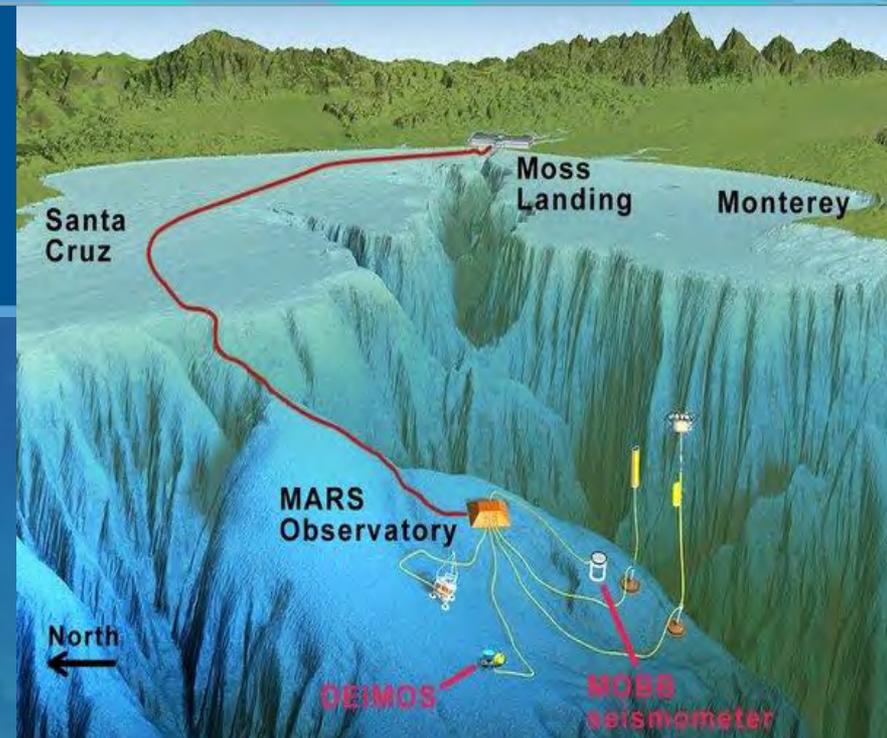
Goal 2. Protect unique and/or rare features

1. Expert workshop May 2011
2. Workshop Summary in preparation
3. Follow up with expert work groups
4. “Rare” is feature- and context-specific
5. Features should be evaluated in terms of contribution to ecosystem health
6. Research needed link URF to ecosystem health

Goal 3. Facilitate research

Expert workshop October 2010

Proceedings published in
National Marine Sanctuary
Conservation Series



Better spatial management would facilitate research.

Regulations and permitting limit marine science.

Areas needed for both applied & basic science.

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

Goal 4. Facilitate sustainable uses

Socio-economic profile

Contract work underway to assess value of human uses around Monterey Bay



Goal 4. Facilitate sustainable uses Participation in Local Catch Monterey

HOME

Why Should I Join?

How Does the CSF Work?

Sustainability

For Fishermen

NEWS

SIGN UP / Contact Us



HOME

Comments Off

24
March
2011

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

- Evaluate the potential socio-economic and marine ecosystem impacts of trawling and hook-line based fishing for halibut in Monterey Bay
- Seeking funding for study



Chronicle / Craig Lee



Research Coordination with NMFS and PFMC



MBNMS Letter to Pacific Marine Fisheries Council

MBNMS Presentation to PFMC in San Mateo

PFMC Letter to MBNMS:

- Commonalities with Fishery Ecosystem Plan
- Accepts invitation to participate in expert groups
- Offers to lead on fisheries and fishing regulations
- Shared research as programs develop
- Importance of involving State and tribes



Research Coordination with NMFS and PFMC



Ecosystem-based management (MBNMS) and
Ecosystem-based fisheries management (NMFS)

- Specifying and aligning research questions
- Cooperating on data synthesis
- Ecological indicators
- Robust Integrated Ecosystem Assessment (IEA)



Focal research objectives for the EBM Initiative

- Long-term cooperative research sites (sentinel sites)
- Priority science questions which cannot be addressed given current spatial management
- Research to evaluate management options



Next Steps

- Reply to PFMC with research questions and priorities
- Finalize the URF Workshop Summary
- Gather and synthesize data for EFH review
- Plan Monterey Bay IEA “scoping”: stakeholder input
- Identify and evaluate sentinel sites
- Document EBM Initiative accomplishments

