National Marine Sanctuaries National Oceanic and Atmospheric Administration



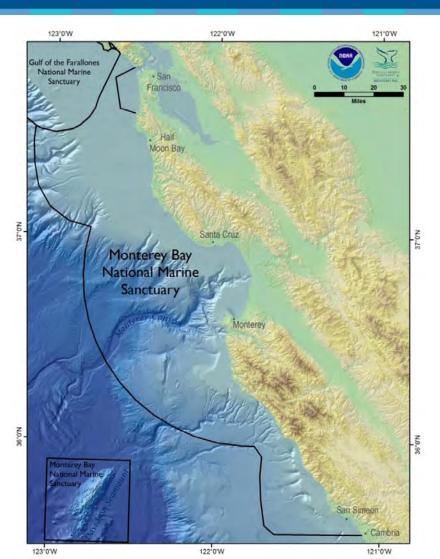


National Marine Sanctuaries

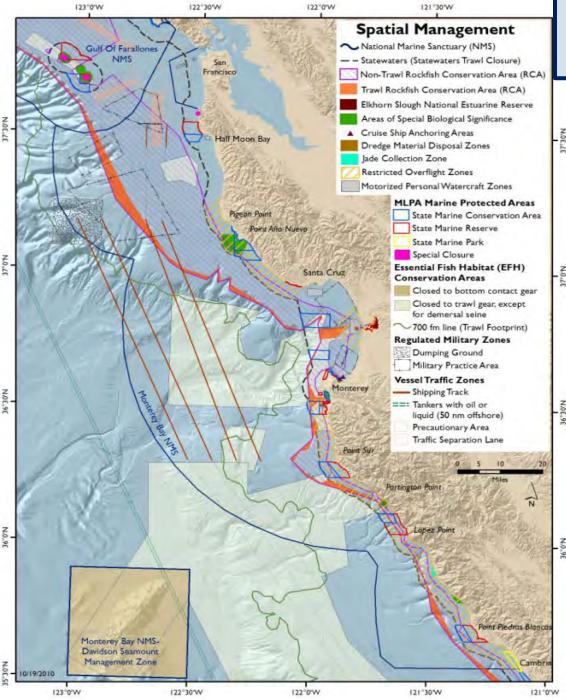
MONTEREY BAY

Monterey Bay National Marine Sanctuary **Ecosystem-based Management Initiative** SAC Meeting December 9th

### EBM Initiative Goal



Enhance ecosystem-based management & marine spatial planning in MBNMS by applying the best available science and integrating and coordinating with partner agencies



# Current MBNMS seascape

- zones created in isolation
- overlapping jurisdictions
- Sector by sector management

EBM Initiative proposes to work collaboratively with various zoning agencies to create a plan that incorporates EBM goals with goals of other organizations.

# EBM Initiative Objectives

 Maintain/restore marine ecosystem health and function;

Ensure protection of unique and rare features;

 Facilitate research to differentiate between natural variation versus human impacts;

Facilitate ecologically and economically sustainable uses, including fisheries.

### Basic steps of Initiative

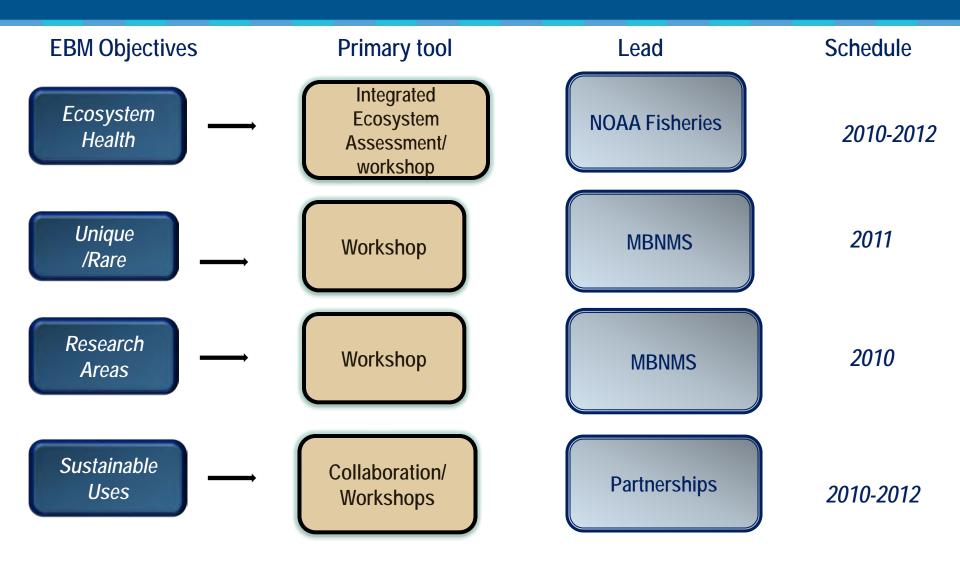
1. Information gathering

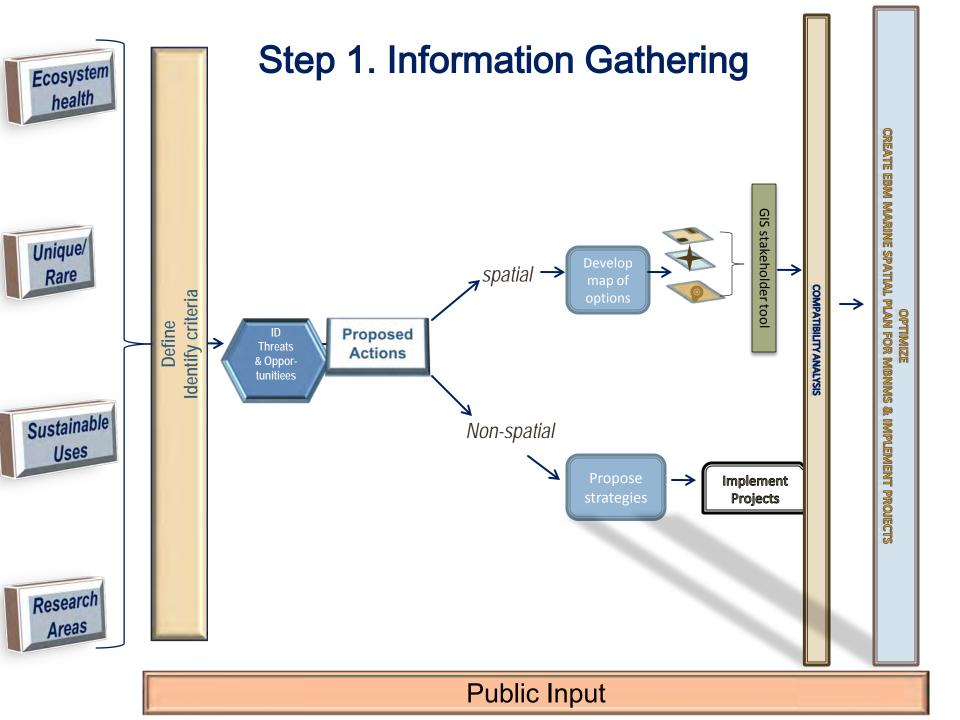
2. Propose & implement strategies

3. Monitor, adapt, assess



### Step 1: Information gathering



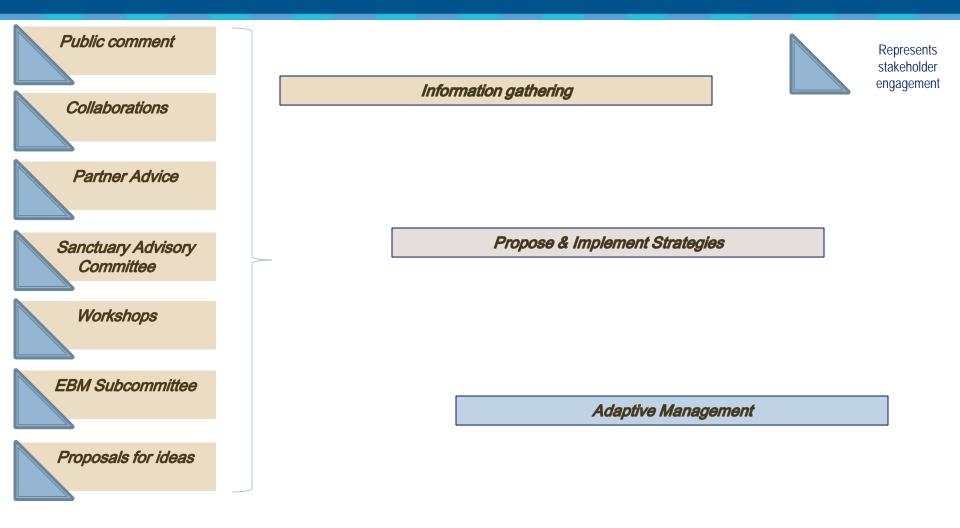


# Step 1. Information gathering FY 2011

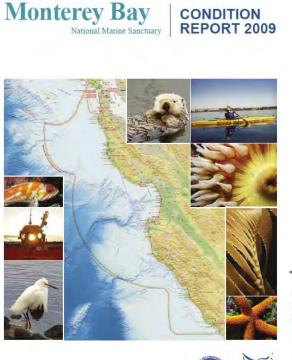


Interagency Consultation Essential Fish Habitat Review (NOAA Fisheries) Central Coast Ground Fish Project Halibut Trawl Fishing proposal (Monterey)

# Stakeholder engagement



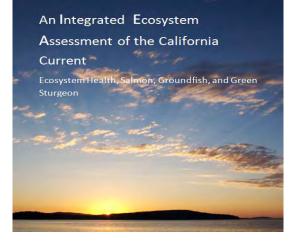
### Step 1. Information gathering Sources of Foundational Information



September 2009



#### DRAFT Integrated Ecosystem Assessment



OPEN CACCESS Freely available online

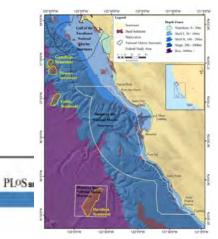
Perspective

#### Integrated Ecosystem Assessments: Developing the Scientific Basis for Ecosystem-Based Management of the Ocean

Phillip S. Levin", Michael J. Fogarty, Steven A. Murawski, David Fluharty

A series of prominent and controversial papers about the accupied the pages of high-profile journals over the land decade [1–7]. While some night quarrel with the point where Largescale, comprehensive ERM is broadly accepted as crucial for effective matter coverration and resource management [16]. While some policy makers clearly grap the unline of an ERM approach. smaining the goals of EBM, IEAs, as to emission them, do not necessarily implant single-sector mainagement instead, they inform the management of diverse, potentially conflicting octanuse sectors. As such, we view IEAs as a

#### Natural Resource Assessment



# **Objective 1. Ecosystem Health**

#### Information gathering

DRAFT IEA	
completed	

Natural Resource Assessment DRAFT II. IEA completed Ecosystem Health workshop

	Scoping Stakeholder engagement		
Oct 2010	Mar 2011	Oct 2011	Nov 2011
An Integrated Ecosystem Assessment of the California Current tourspheritering of oundful, and Green Sturgeon			

## Integrated Ecosystem Assessment

### 2010

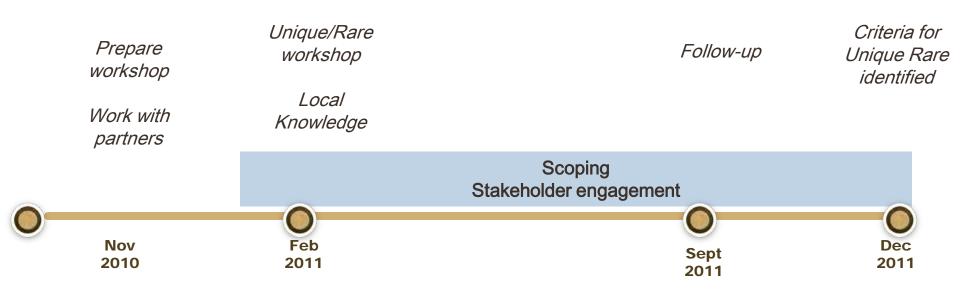
- Ecosystem health
- Ground fish
- Salmon
- Sturgeon

## 2011

- Ecosystem health
- Ground fish
- Salmon
- Sturgeon
- Pelagic species
- Water quality
- Forage Fish

# Objective 2. Unique & Rare

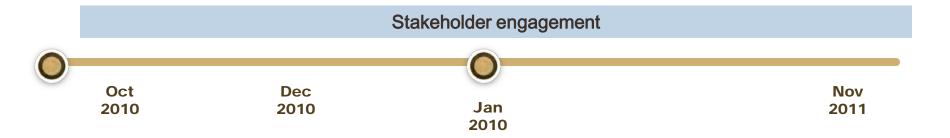
#### Information gathering



# **Objective 3. Facilitate Research**

#### Information gathering

Research Areas workshop	Workshop report completed & distributed	Follow up	<i>Criteria for Research Areas Developed</i>
workshop	,		



### Step 1. Information gathering Objective 3. Research Areas workshop

#### **Workshop Objective**

To review existing spatial management, determine how it affects marine science, and discuss what kinds of strategies, if any, could facilitate science that supports ecosystem-based management of MBNMS

- October 26<sup>th,</sup> National Marine Fisheries Service Santa Cruz Lab
- Participants: Expert scientists with experience in MBNMS. Collaborative partners (e.g. fishermen). EBM Subcommittee.
- Open to the public
- Solicited input from EBM Subcommittee for attendees.

## Objective 4. Promote sustainable uses

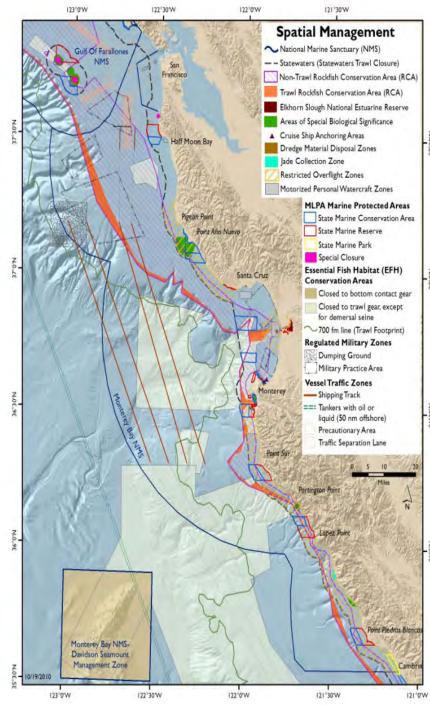
Information gathering

Sustainable uses brainstorming Sustainable Use workshop #1 Sustainable Use workshop #2

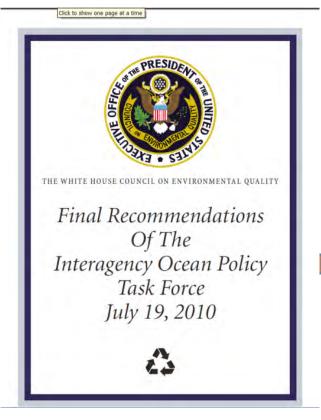


Step 2. Propose and implement strategies Pathways (existing & emerging)

- Sustainable fishing projects
- Essential Fish Habitat
- MSA/NMSA
- ITQ Ground fish project
- Sustainable seafood market
- Coastal & Marine Spatial Planning
- Ecosystem Fishery Manager
  Plan



# National Ocean Policy



### •Consistent with EBM Initiative

#### National Priority Objectives

- 1. Ecosystem-Based Management: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.
- 2. Coastal and Marine Spatial Planning: Implement comprehensive, integrated, ecosystembased coastal and marine spatial planning and management in the United States.
- 3. Inform Decisions and Improve Understanding: Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.
- 4. Coordinate and Support: Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government, and as appropriate, engage with the international community.
- 5. Resiliency and Adaptation to Climate Change and Ocean Acidification: Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.
- Regional Ecosystem Protection and Restoration: Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels.
- Water Quality and Sustainable Practices on Land: Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.
- Changing Conditions in the Arctic: Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.
- 9. Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure: Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system, and integrate that system into international observation efforts.

### What are we working toward?

Through collaborative participatory process:

- A comprehensive spatial, integrated EBM plan for MBNMS that optimizes resource protection with sustainable uses
- This plan will be developed by considering other agency policy decisions (i.e. EFH Review, Ecosystem FMP)
- Modifications in spatial & non-spatial management may be proposed
- Modifications in management may be achieved thru regulatory & non-regulatory means

# Moving toward....

