

# Ecosystems Pilot Project

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## Status report

**Jan 11, 2006**  
**Ecosystems Committee**


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# The Project

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 **Recap**

 **What did we learn?**

 **Future directions**

# Project recap

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-  **What is the pilot project?**
-  **What is an ecosystem approach to management?**
-  **What is a fishery ecosystem plan?**
-  **How might all this nonsense actually change management?**

# The Pilot Project

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**What is the pilot project?**

 **Attitudes and values survey**

 **Stakeholder workshops**

 **Inventory of technical needs**

# The Pilot Project

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## What was it's objective?

*“NMFS currently is developing a policy that would require regional FEPs.*

*This pilot project would provide a timely way to gather public input regarding the objectives and goals to be accomplished through the introduction of FEPs.*

*The intent of the FEPs is to provide a framework for organizing information about the structure and function of ecosystems and for developing ways to enhance decision making when goals of single-species or fishery-by-fishery management approaches conflict.”*



# EAM Defined

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## What is an ecosystem approach to management?

An ecosystem approach to management is a geographically specified and adaptive process which (a) takes account of ecosystem knowledge and uncertainties, (b) considers multiple external influences, and (c) strives to balance diverse societal objectives

*NOAA Ecosystems Principals Advisory Panel (1999)*

# EAM Defined

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## Or it could be...








Ecosystem-based management considers all the components of the ecosystem (biological, chemical and physical) and their interactions. This includes an appreciation of natural ecosystem dynamics *AND* it explicitly recognizes that man is part of the system and seeks to include stakeholders in setting management goals.

*European Fisheries Ecosystem Plan Project (2004)*



# EAM Defined







## But it should probably follow these principles...

-  Objectives are a matter of societal choice
-  Management should be decentralized to lowest possible level –*subsidiarity*–
-  Consider effects on adjacent ecosystems
-  Need to manage in an economic context, focusing on:
  -  Reducing market distortions that adversely affect ecosystem structure, function and biodiversity
  -  Align incentives to promote conservation and sustainable use
  -  Internalize costs and benefits within a given ecosystem



# EAM Defined

## Con't...

-  Maintaining ecosystem services (structure and function) should be a primary objective
-  Focus on appropriate spatial and temporal scales
-  Set long-term objectives for management
-  Recognize that change is inevitable (the steady-state myth)
-  Consider all forms of relevant information, including indigenous and local knowledge
-  Seek to involve all relevant sectors of society and scientific disciplines

## What is an FEP?



### Strategic document



Sets over-arching goals



Addresses trade-offs between competing fisheries



Defines:



Spatial boundaries



Management units



May support, not supplant, FMPs









# Eight steps to an FEP

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- 1) Determine the stakeholders
- 2) Define the spatial boundaries
- 3) Characterize the structure and function of the ecosystem, including ecological and monetary economies
- 4) Define long-term objectives
- 5) Define indicators of health/success
- 6) Determine robust, flexible paths for realizing objectives
- 7) Monitor and assess impacts of decisions relative to long-term objectives
- 8) Determine impacts of decisions on adjacent ecosystems

# Change

## How might management change?

-  Shift from species-based to area-based management
-  Explicitly set spatially-based objectives with a focus on stakeholder input
-  Internalize costs and benefits of both fisheries and fisheries management
-  Broader metrics for success, including indicators of ecosystem structure and function
-  Longer time horizons, less individual actions
-  Simpler regulatory structure
  -  more flexibility for fisherman
  -  greater margin of error for regulatory effectiveness

# What did we learn?

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**Objectives for the project**



**Project components**







**Preliminary conclusions**

# Our project objectives





## Collect data on issues fundamental to FEP development

-  Stakeholders and stakeholder interaction
-  Area-based management
-  Management units
-  Objectives, indicators and tools



## Inform the big and small picture

-  Narrow focus: Ecosystems approaches to fisheries management
-  Broad focus: Ecosystems approaches to marine resource management

# Project components

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**Jurisdictional issues paper**



**Marine pollution paper**



**Stakeholder workshops**













**Stakeholder survey**

# Jurisdictional issues

## Offshore LNG

 Under Energy Policy Act 2005, FERC has the lead





 Deepwater MOU:

-  DOC – NOAA and NOS
-  DOC – Utilities and Energy, Corps of Engineers
-  DOE – Office of Fossil Energy
-  DHS – US Coast Guard
-  DOI – MMS and US F&WS
-  DOS
-  DOT – MARAD and RSPA
-  EPA
-  FERC
-  CEQ

# Jurisdictional issues

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## Marine aquaculture

-  Multi-agency permitting process not well defined
-  Permits required from: NOAA Fisheries, COE, EPA, F&WS
-  NOAA Fisheries currently lead as per MCFMC
-  Aquaculture bill would make DOC (NOAA) lead agency, exempts from MFCMA

# Jurisdictional issues

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## Wind engery

-  DOI (MMS) lead agency as per Energy Policy Act of 2005
-  MMS must consult with USCG
-  COE must issue Sec 10 permit, conduct “public interest review” beyond NEPA responsibilities

# Jurisdictional issues

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**A coordinated approach to marine resource management in federal waters would require cooperation with no fewer than 14 Agencies.**



**This does not account for:**



**Military traffic**



**Commercial shipping**



**Sand mining/dredging**



**State activities**

# Marine pollution

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# Stakeholder workshops

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## Workshop results:

-  Stakeholder saturation/reach
-  Range of views presented
-  Commonality/emergent themes

**What does the Ctte want to know?**






# Survey

## Fishery stakeholders:

-  Are not young (q. 1-4)
-  Are active in their fishery 'community' (q. 2-2)
-  Find it hard to participate in management (q. 2-6)
-  Don't think management is good for the long-term health of the ecosystem (q. 2-8)
-  Like the idea of area-based management (q. 2-9, 2-AP8)
-  Don't think the horsepower/size restrictions work very well in theory or in practice (q. 2-10, 11)




# Survey

## Fishery stakeholders (con't):

-  Prefer output controls for the groundfish fishery (q. 2-13)
-  Think that preserving biodiversity contributes to a healthy fishery (q. 2-15)
-  Believe that current fishery management practices negatively impact the ecosystem (q. 2-16)
-  Believe that pollution is bad for the fisheries (q. 2-17)
-  Fear non-visionary ecosystem-based management (q. 2-17) ...*at least one does*

# Survey

## Fishery stakeholders (con't):

-  Would probably make some changes to the herring fishery (q. 2-18)
-  Do not think tradeoffs are adequately addressed under current management (q. 2-19)
-  Don't much trust federal or state agencies to manage marine resources (q. 2-21)

**Need to know what is interesting to the  
Ctte / Council**

## Preliminary conclusions







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### Ecosystems approaches may offer improvements by providing:

1. Stronger focus on area
  - a) Productivity
  - b) Management objectives
  - c) Governance
2. Mechanisms for addressing trade-offs
3. Increased emphasis on non-fishing impacts (esp. pollution)

# Preliminary conclusions

## Potentially actionable items include:

-  Defining terms (eg. EAM, fishery stakeholder, etc.)
-  Delineating ecosystem boundaries
-  Changing management units
-  Changing management threshold definitions (eg. overfishing/overfished, optimum yield)
-  Increasing the Council's role in broader marine resource management issues
-  Others?

# Future directions

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Where does the Ctte think the Council should go from here?

-  Ecosystems Ctte?
-  FEP?
-  Recommendations?
-  Questions?
-  Future work?