



# Marine Protected Areas

## Education and Outreach Workshops

A Report of the  
New England Fishery Management Council  
2005



AUTHORS:

CHRISTOPHER MEANEY  
LESLIE-ANN S. MCGEE  
NEW ENGLAND FISHERY MANAGEMENT COUNCIL

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FOR MORE INFORMATION, PLEASE CONTACT:

LESLIE-ANN S. MCGEE  
PROJECT MANAGER  
NEW ENGLAND FISHERY MANAGEMENT COUNCIL  
50 WATER STREET, MILL 2  
NEWBURYPORT, MA 01950  
(508) 495-2358  
[LESLIEANN.MCGEE@NEFMC.ORG](mailto:LESLIEANN.MCGEE@NEFMC.ORG)

## Workshop Steering Committee



Leslie-Ann McGee  
New England Fishery Management Council Staff and Project Manager



Tracy Hart  
Maine Sea Grant, Orr's Island, ME



Sally McGee  
New England Fishery Management Council member, Mystic, CT



Jackie O'Dell  
Northeast Seafood Coalition, Gloucester, MA



Kathi Rodrigues  
National Marine Fisheries Service, Office of Habitat Conservation, Silver Spring, MD



Geoff Smith  
Ocean Conservancy, Portland, ME



Ron Smolowitz  
NEFMC Habitat Advisory Panel Chair and Commercial fishing industry representative, Falmouth, MA



Kate Smukler  
NOAA Marine Protected Areas Center, Northeast Region, Boston, MA



David Stevenson  
National Marine Fisheries Service, Division of Habitat Conservation (NERO), Gloucester, MA

## Executive Summary

The New England Fishery Management Council (Council or NEFMC) held two Marine Protected Areas (MPAs) Education and Outreach Workshops in May 2005. Workshop 1 was held on May 5-6, 2005 at the Whispering Pines Conference Center in West Greenwich, Rhode Island and Workshop 2 was held on May 10-11, 2005 at the Cliff House Resort and Conference Center in Ogunquit, Maine.

The workshops were the result of efforts in 2004 by the Workshop Steering Committee which included representatives from the NEFMC Habitat/MPA Staff (Project Manager), the Council's Habitat/MPA Committee Chair, the Council's Habitat Advisory Panel Chair, NOAA MPA Center, Northeast Seafood Coalition, the Ocean Conservancy, Maine Sea Grant and the National Marine Fisheries Service.

The purpose of the Workshops was to involve stakeholders in the process of developing a draft Council policy on marine protected areas by providing a general education on basic marine ecology, the role of habitat in fisheries, and the science of MPAs. The goal of the workshops was to provide public input to the Council for use in the development of a MPA policy.

Through direct mail, internet notification and external publicity, the public throughout New England was invited to participate at the cost-free workshops. While at the workshops, participants gathered in small group breakout sessions and were asked to provide their opinion on the following topics:

- Prior Knowledge of Marine Protected Areas
- Terms and keywords in MPA Executive Order 13158
- Successful regulations and best management practices of existing MPAs
- Documentation and appropriateness of purposes for MPAs
- Draft personal MPA policy

For each Input Session, the participants gathered in their assigned small groups and were led through the Task with the help of a professional facilitator. Through a non-consensus building atmosphere assisted by a professional facilitator, a wide-range of data was collected from the workshop participants. The participants were not asked to agree or come to consensus on any item - all input was considered and recorded. During the workshop, staff collected the data sheets from the facilitators and notes from the note-takers, which were entered into electronic format during the workshop to ensure proper translation and recording of direct input.

After the workshops, key points and themes in the data set have been synthesized and analyzed and included in this report.

There was a wide range of opinion regarding the development of MPA policy. Participants acknowledge there are many types of managed areas serving different purposes that act like MPAs. It was noted that the definition of MPAs would benefit from clearly defined terms. Best management practices, as identified by attendees, was highly variable. The number of votes and level of support for different MPA purposes varied, such that some purposes received a high number of votes with high support while other purposes received low votes with varying support. Finally, in order for the final policy to be successful, it will need clearly stated goals and should be founded upon communication and collaboration between stakeholders, scientists, and managers.

The goal of this analysis is not to provide recommendations. The Council and other interested readers will find the analysis to be a useful tool in understanding stakeholder input on marine protected areas and will aid in the development of Council MPA policy.

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# Table of Contents

Workshop Steering Committee.....	ii
Executive Summary .....	iii
Introduction .....	7
Input Session / Task 1 Analysis: Prior Knowledge of Marine Protected Areas .....	8
Goal 1 .....	8
Results 1.....	8
Goal 2 .....	8
Results 2.....	8
Input Session / Task 2 Analysis: Working Definition of Marine Protected Areas .....	11
Goal 1 .....	11
Results 1.....	11
Goal 2 .....	11
Results 2.....	11
Input Session / Task 3 Analysis: Best Management Practices.....	14
Goal .....	14
Results.....	14
Input Session / Task 4 Analysis: Purposes of Marine Protected Areas .....	16
Goal 1 .....	16
Results 1.....	16
Goal 2 .....	16
Results 2.....	16
Input Session / Task 5 Analysis: Draft Policy.....	18
Goal 1 .....	18
Results 1.....	18
Goal 2 .....	18
Results 1.....	19
Conclusion .....	20
Appendix 1: Workshop Agenda .....	22
Appendix 2: Workshop Participants .....	24
Appendix 3: Facilitator List.....	26
Appendix 4: Speaker List .....	28
Appendix 5: Task Sheets .....	29
Appendix 6: Supplemental Handouts.....	35
Appendix 7: Raw Data, West Greenwich, R.I. MPA Workshop.....	42
Appendix 8: Raw Data, Ogunquit, M.E., MPA Workshop.....	68

## Introduction

Marine Protected Areas (MPAs) are used throughout the United States and the world as a tool to conserve natural and cultural marine resources, serve many different purposes and are established for a variety of reasons. The term MPA has been used in many ways as well. Those impacted by or interested in MPAs have varying perceptions on the value and use of MPAs. Executive Order 13158 (EO) directs the National Oceanic and Atmospheric Administration (NOAA) and the Department of the Interior to work with other federal agencies and consult with states, territories, tribes, and the public to develop a scientifically-based, comprehensive national system of MPAs (MPA Center 2005). Additionally, the EO defines a marine protected area as “any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein”. However, the Executive Order does not establish a new authority to create or manage MPAs; therefore it is the responsibility of existing agencies to work to develop the system of MPAs.

As an existing regulatory body with the authority to create or manage MPAs, the Council has decided that it is necessary to develop a policy on MPAs to act as a guiding principle when developing fishery-management related MPAs or managing existing Council MPAs. The policy will also enable the Council to work with other regulatory bodies and the MPA Center with regards to the interpretation and implementation of the Executive Order. As such, the purpose of the Workshops was to involve stakeholders in the process of developing a draft Council policy on marine protected areas by providing a general education on basic marine ecology, the role of habitat in fisheries, and the science of MPAs. The goal of the workshops was to provide public input to the Council for use in the development of a MPA policy.

The following analysis of the input generated at the MPA workshops will provide the Council with valuable public insight. Data collected from workshop breakout sessions are compiled and summarized by Input Session Task in accordance with the purpose of each task as understood by workshop participants. Five (5) Input Sessions were held during the workshop at strategic points during the agenda. Intermixed with the Input Sessions, the workshop attendees were provided with a range of presentations from experts. The agenda was constructed to allow the attendees to benefit from an explanatory presentation on the topic for the corresponding Input Session (see agenda and task sheets for more detail).

# **Input Session / Task 1 Analysis: Prior Knowledge of Marine Protected Areas**

## **Goal 1**

The first goal of task one was to provide an understanding of participants prior knowledge regarding MPAs by having them identify main areas in the marine and coastal areas of New England that function as MPAs. The second goal was to identify how these areas either positively or negatively affected fisheries, habitat, jobs, and the economy.

## **Results 1**

Participants demonstrated a sound existing knowledge base of areas that act like MPAs. In regards to the positives and negatives associated with the protected areas, there were varying levels of opinion, and not all areas identified were addressed by attendees. Positive benefits were characteristic to the fish stocks and habitat, while areas that were negatively affected were fisherman and some aspects of the related economy. There was an understanding that for many of these relationships there needs to be further assessment of data determining if relationships are linked by cause and effect.

Areas identified most often as functioning as MPAs:

- Stellwagen Bank National Marine Sanctuary
- Western Gulf of Maine
- Caches Ledge
- Georges Bank Closed Areas I and II
- Exclusive Economic Zone
- National Estuarine Research Reserves

## **Goal 2**

Next, participants were asked to identify, in their opinion, how have these areas either positively or negatively affected fisheries, habitat and the overall economy. A summary of this input is provided below for the most frequently identified areas in Goal 1:

## **Results 2**

### **Stellwagen Bank National Marine Sanctuary**

Positives:

- jobs and the economy benefit from ecotourism.
- fishery and bottom habitat benefits from the protection from oil and gas exploration, as well as a decreased area fisherman in one aspect of the reserve.

- due to regulation associated with the reserve, fisheries as a whole benefit, positive aspects for surrounding fisheries

Negatives:

- economic opportunity costs
- designation does not protect the sanctuary from pollution
- redoing sanctuary plan must involve Council changes, other sanctuaries have own rights
- fishing effort is displaced into other areas.
- unclear if the rebuilding of fish stocks as result of the management
- less area for fisherman to fish
- mining and dredging industry negatively affected because excluded from the bottom

Western Gulf of Maine

Positives:

- ground fish resources benefit from gear specific closures, (cod haddock, pollack)
- spawning protection results in rebound of migrating stocks and provides a corridor for cod distribution inshore offshore – north south
- recreational fishery, jobs and economy improved from more and better fish if you fish with gear that is allowed to go in
- habitat within boundary benefits from reduced effort
- feeding ground for juveniles
- management efforts protect the fishery and habitat against detrimental past fishing practices

Negatives:

- habitat outside of boundaries witnesses potential adverse impacts due to increased efforts
- inshore fleet displaced to complex habitat, which affects jobs
- displaces effort into other areas which cuts off fleet from profitable fishing grounds
- lack of access to commercial fisherman, particularly small fisherman hit the hardest
- loss of fish supply. Cod are heavily hit when they come in to shore to feed

Georges Bank Closed Areas I and II

Positive:

- the fishery benefits during closure, spawning potential increases as well as the potential for increased biomass and recruitment.
- habitat, observed increases in scallops, and yellowtail

Negative:

- negative impacts on the economy when shut down, closed to boats, short term loss, long term gain



## **Input Session / Task 2 Analysis: Working Definition of Marine Protected Areas**

The purpose of task two was to have participants identify terms in Executive Order 13158 that were of importance or needed further definition or interpretation. The intention was to assist the Council in understanding stakeholder perception of the Executive Order and to learn from peoples understanding or lack there of.

Definition: *“Any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein.”* (Executive Order 13158)

### **Goal 1**

Participants were asked to briefly review the Executive Order’s working definition of MPAs and identify those key words that need further definition or clarification.

### **Results 1**

The commonly highlighted terms included: *cultural/cultural resource, lasting protection, area, reserved, natural, marine environment, protection, part or all.*

### **Goal 2**

Attendees were then asked to provide input on how the Council should interpret the terms, and were given the opportunity to define them. Below is a summary of the range of interpretation presented by workshop participants.

### **Results 2**

#### **Cultural/cultural resources**

A handful of participants indicated a cultural resource is something utilized by traditional natural resource communities. Others felt when discussing natural resources, a cultural resource is one that is religiously based. Others referred to a cultural resource as archeological artifacts or sites such as shipwrecks.

#### **Lasting Protection**

A handful of participants indicated that “lasting” means permanent. Others acknowledged that the time frame of lasting requires flexibility. It was frequently noted that the lasting aspect of an MPA depends on the purpose of the MPA, which requires looking closely at specie life cycles and best available science. A participant noted if the purpose is to rebuild fish stocks, an MPA may not need to be forever. Another workshop member felt that “lasting” should be associated with restoring ecological functions and upholding the restored function in perpetuity. Other

interpretations of “lasting” incorporate periodic review based on research and re-evaluation of the MPA, that “lasting” should be defined explicitly in the policy goal statement and that “lasting” means exclusion of all users. A final interpretation was that “lasting” shall be based on precautionary principles.

### Protection

It was indicated that “protection” needs to be based on science and data with measurable results. Another view was that “Protection” should protect from multiple threats. A participant expressed the view that protection to protect fish stocks needs to consider predator prey relationships, the habitat needs of the species, and must consider all impacts (natural or man, ocean or land based) on the given issue. A fourth view is that protection should recognize many levels of restriction. Another example of the range of views is that fishermen see the term “protection” as meaning protected “from them”, and that it should be interpreted as protected for the public trust. Finally, it was suggested that protection means to move current human use towards uses or activities below detrimental thresholds.

### Area

Participants noted “area” should be designated by scientific criteria supported by stakeholder input, and it should be stated clearly what is protected and should be established using clear coordinates. The dynamic properties associated with area were a common theme addressed by workshop participants. It was indicated that area needs to consider the dynamic nature of the ocean, and that boundaries may change over time in response to changes in resources, and that areas need to be able to adapt in response to these changes. Another view shared by some was that moving areas can be problematic. A different view was that non-marine habitats such as those required by anadromous species should be considered. Yet another view shared by some is that area must be linked to purpose, and a good MPA should move in space and time if consistent with the purpose. Participants also discussed the designation of boundaries, indicating that areas must include clear geographic coordinates that allow a user to know if they are in an MPA. Others demonstrated that drawing hard boundaries without the ability to change may have detrimental impacts, for example on the unmanaged side of the boundary.

### Reserved

Some participants felt that reserved needed to be interpreted based on established national standards. Some stakeholders indicated that “reserved” implied: set aside for something special, meaning something physical. It was also indicated that something is reserved through implementation and enforcement, meaning that within the boundaries there are principles and guidelines that regulate activity. Participants also noted that there should be consequences if reservation is not honored, indicating that reserved must have the ability to enforce.

### Marine Environment

A participant indicated that marine environment needs to be interpreted more narrowly. However, another participant recommended the interpretation of “marine environment” include a wide range of aspects like geology, bedrock, surficial geology, algae, sponges, corals,

water movement associated with tidal/wind driven currents, as an area inhabited temporarily by various species, and one that is crossed by boats and interacts with weather and climate. Others identified marine environment as more than a geographical area which needs to incorporate currents and species that come and go and inputs and outflows must be taken into account.

# Input Session / Task 3 Analysis: Best Management Practices

## Goal

The purpose of this task was to gain input on successful regulations and practices from existing marine-managed areas. Participants were encouraged to provide examples of national or international managed areas that might be suitable as templates for the Council to use in developing a MPA policy. Participants were asked to provide insight into what past or present regulations or management practices resulted in success.

## Results

Participants demonstrated a large range of opinion in response to the questions asked in task three (3). Although participants were asked to report on successful practices, reasons for lack of success were frequently provided. Participants said that the level of success depends on the purpose of the managed area and who you are asking. However, it was clear participants felt that managed areas with well defined goals and areas with effective monitoring provide a good template for policy.

Provided below is a list of managed areas with bullet points indicating why they may be useful as templates for future policy.

### Great Barrier Reef, Australia

- based on good spatial data on species location
- multi-zoned, based on careful analysis with scientific monitoring with assessment and adaptive management.
- management practice that identified a set of areas meeting largest set of goals
- overarching management body that has broad authority, more than just fisheries
- includes scientific monitoring and adaptive management
- zoning within marine managed area
- transparent process

### Deep-Sea Canyon Closures (Oceanographer and Lydonia Canyons)

- public involvement
- closed to protect sensitive non-fish species, protection of a non-commercial species
- based on strong science with industry and political support

### Channel Islands National Marine Sanctuary

- ecosystem protection, best practices because it is a comprehensive model with optimization, habitat economy with stakeholders
- great process characterized by early stakeholder input
- there are marine managed areas in MPAs within it, it has comprehensive approach to ecosystem management, designated process with a clear timeline

### Nahant Cod Closure

- once objective achieved closure was opened
- competing users work together arriving at creative solutions (ex. mussel rafts)

### Stellwagen Bank National Marine Sanctuary

- specific gear prohibitions/modifications
- education opportunities
- overlaps with research

### Western Gulf of Maine Habitat Closed Area

- clearly stated goal
- restriction on mobile tending gear which improves bottom habitat and fishing
- issue specific closures

### Rhode Island Eel Grass Policy

- written implemented policy
- habitat protection based on habitat not species

### Jefferies Ledge/Cashes Closure

- Boundaries drawn in odd shapes covering a variety of depths and multiple areas in which fish live

# **Input Session / Task 4 Analysis: Purposes of Marine Protected Areas**

## **Goal 1**

Participants were asked to briefly review the list of potential purposes for MPAs in New England and identify any additional or revised purposes.

## **Results 1**

The pre-determined set of purposes posed to the participants included: protect ecology, establish control sites for scientific research studies, conserve habitat, protect vulnerable stocks, and protect cultural resources. Generally, added purposes were: reduce bycatch, decrease user conflict, and protect public trust resources

## **Goal 2**

Participants were asked to provide their level of individual agreement (disagree, somewhat disagree, neutral, somewhat agree, or agree) on the revised or expanded set of MPA purposes based on the results of Goal 1 of this task. By scoring their agreement-level with the purpose, it was possible to examine the range of acceptance of specific purposes within and across groups.

## **Results 2**

Overall, protecting ecology and control sites for research received the greatest amount of agreement. The purpose with the largest variation in level of agreement was protection for cultural resources. The following is a summarized list of the level of agreement demonstrated by workshop participants. For a closer look at the scoring charts by the various small breakout groups, please refer to the data in the appendix 7 and 8, listed under task four (4).

### **High Agreement, high number of votes**

- protect ecology, including restore and conserve fisheries habitat and ecosystems, as well as protect biodiversity
- research and control sites

### **High Agreement, low number of votes**

- protect vulnerable stocks
- protect spawning stocks
- sustainable fish protection
- protect public trust resources

### **Wide distribution of acceptance level, high number of votes**

- protect cultural resources, cultural practices

### **Wide distribution of acceptance level, low number of votes**

- reduce bycatch
- protect big old fat females (BOFFs)
- decrease user conflict
- protect rare valuable species

Input was also provided on areas with the greatest range of opinion. Discussion frequently surfaced regarding protecting cultural resources. Opinions on what cultural resources are ranged from artifacts and shipwrecks not including cultural practices to including resource dependent fishing communities. One view expressed was that some traditional cultural practices are harmful to the environment.

Workgroups demonstrated a wide range of opinion regarding MPAs for research and control sites. One opinion was that potential costs associated with research could be too high, and therefore goals would not be achieved, as well as the idea that areas could not be true control sites because management actions already occur in potential MPA areas. Others indicated that control sites are critical if we are to understand human impacts on marine ecosystems. A point was made that there would be an issue of competing priorities, that if non-scientist were excluded it would benefit the scientific community and be less desirable for other users. Lastly, it was indicated that the ability to make assessments and monitor must be tied to the goal of the MPA, and that scientific community oversight would be an integral part of the MPAs existence.

## **Input Session / Task 5 Analysis: Draft Policy**

Task five required participants to provide their main points on what a MPA policy should say and how it should be used. The task provided individuals an opportunity to direct their comments directly to the Council through two distinct avenues: 1. Discussion among the group which was recorded by notetakers and 2. Individual written statements prepared and submitted at the end of Task 5. The following highlighted key points provide insight into opinions voiced by workshop participants. For a greater understanding of the range of opinions, participant responses are included anonymously in appendix 4 and 5 listed under Task 5.

### **Goal 1**

Participants were asked to provide input on what the MPA policy should say.

### **Results 1**

The following list includes the main themes from the small group discussion as well as individual input sheets submitted by the participants.

#### **A MPA policy should say:**

- Marine Protected Areas shall be founded upon clearly stated goals and concrete definitions. The goals and definitions should be supported by best available scientific data as well as stakeholder input. The policy must be flexible and adaptive and address what happens once the goal or objective is met.
- MPA policy should work in partnership with federal, state, and local agencies. MPA policy should incorporate monitoring and assessment based on scientific data, and monitoring should be commensurate with funding.
- Other participants indicated that the primary role of the Council is to promote sustainable fisheries and should not be superseded by MPA policy.
- Should include language that protects ecological function and integrity, structure and habitat from debilitating extractive activities, while an opposing view indicated that the policy should include language that allows for economically sustainable use of the marine environment as well as for compensation to those who are permanently excluded from an area.

### **Goal 2**

Participants were asked to provide input on how the MPA policy should be used.

## **Results 1**

The following list includes the main themes from the small group discussion as well as individual input sheets submitted by the participants.

### How MPA policy should be used:

- Many participants indicated that Marine Protected Areas should be used as a tool to accompany other management tools already used in fisheries management. Opinions support the view that MPAs should only be used when other measures to achieve the same goal have been determined to be less effective, whereas others felt as though MPAs should be designated as permanent no take areas. It was also noted that MPAs should be used on a case-by-case only basis, as opposed to those who felt an overarching, standardized policy was more relevant.
- Used in a way that limits impacts on natural resource dependent communities, so as not to put a socio-economic burden on resource dependent communities. Others indicated that MPAs should be used primarily to protect ecological structure and function, to protect fish species and habitat, and lastly as a fishery management tool.
- Should be used with an ecosystem approach in an adaptive and flexible manner
- MPA policy as well as MPAs should be used with a foundation based on communication and collaboration. Workshop attendees indicated a need for communication and collaboration between researchers, managers, and stakeholders. Research should be explained in lay terms, and should be communicated to all. Websites as well as an online public forum for questions/comments/postings would be beneficial.

## Conclusion

Workshop participants demonstrated a wide range of opinion regarding issues associated with marine protected areas. It was acknowledged that there are many different types of managed areas serving different purposes that act like MPAs. Workshop participants most often identified larger closures in New England as areas that could possibly be considered MPAs, however the data collected also reveals peoples knowledge of smaller, more localized areas.

It is evident that the definition of MPAs would benefit from more clearly defined terminology. The way in which the terms in Executive Order 13158 are interpreted by fishery managers, fisherman, and others will influence the purpose and goals of MPA policy. Workshop participants indicated that in order to develop strong policy, terminology and associated concepts need to be addressed.

There was a large range of opinion determining best management practices. Workshop attendees indicated success depended heavily on the goals of the management, and noted determining success relied on evaluation and monitoring. Participants indicated that this needed to be considered in order for MPA policy to be effective.

In regard to the purposes of MPAs, when participants were asked to score their agreement or disagreement in a range from “highly agree” to “highly disagree”, the number of votes and level of support varied. Protecting ecology received a high number of votes and high agreement as a reasonable purpose, as did using MPAs for research and control sites. Protecting cultural resources received a high number of votes, however there was varying level of support. Reduce bycatch received a low number of votes with varying acceptance. The varying levels of support for the different purposes indicate the importance of considering the different options for MPAs.

A handful of key points surfaced from the wide range of opinion provided by the participants. From this handful, two themes appear to be influential to the development of MPA policy. The first is that MPA policy requires clearly stated terminology and clearly stated goals in accordance with purpose, supported by best available science. Second, the use of MPA policy, as one tool in the fishery management toolbox, will benefit from communication and collaboration between stakeholders, scientists, and fishery managers.

The input provided by workshop participants will be a valuable asset to the Council in the development of MPA policy.

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# Appendix 1: Workshop Agenda



New England Fishery Management Council  
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116  
Frank Blount, *Chairman* | Paul J. Howard, *Executive Director*

## *Marine Protected Areas Education and Outreach Workshop*

### *Agenda*

#### DAY ONE

- 12:00 p.m.     *Registration*
- 1:00            *Welcome and Statement of Purpose*  
Paul Howard, Council Executive Director
- 1:15            *Review Agenda and Ground Rules*  
Leslie-Ann McGee, Council staff  
Jay Vogt, Lead facilitator
- 1:30            *Input Session #1: Prior Knowledge*
- 2:15            *Report: Prior Knowledge Input*
- 2:30            Break
- 2:45            *Presentation #1: Executive Order and  
MPA Center/Federal Advisory Committee Overview*  
Kate Smukler, NOAA Marine Protected Areas Center
- 3:30            *Input Session #2: Working Definition of MPAs*
- 4:00            *Report: Working Definition Input*
- 4:15            *Presentation #2: MPAs in New England*  
Leslie-Ann McGee, Council staff
- 5:00            *End of day one*
- 6:00            *Welcome Reception*

**DAY TWO**

- 8:00 a.m.     *Workshop Convenes / Review Agenda*
- 8:45           *Input Session #3: Best Practices*
- 9:15           *Report: Best Practices Input*
- 9:30           *Presentation #3: Ecology of Northeast United States*  
Dr. William Overholtz or Dr. Michael Fogarty, NOAA/NMFS Northeast  
Fisheries Science Center
- 10:30          Break
- 10:45          *Presentation #4: Understanding MPA Science*  
Dr. Lisa Wooninck, NOAA Marine Protected Areas Science Institute
- 12:00 p.m.    Lunch
- 1:00           *Input Session #4: Purposes of MPAs*
- 1:30           *Report: Purposes of MPA Input*
- 1:45           *Input Session #5: Draft Policy*
- 2:45           Break
- 3:00           *Report: Draft Policy Input*
- 3:30           *Recap: Range of Public Input*
- 4:00           *Next Step: Using Input to Develop MPA Policy*  
Sally McGee, NEFMC Habitat/MPA Committee Chair
- 4:30           *Workshop Adjourns*

## Appendix 2: Workshop Participants

1. Allyson Jordan, Commercial fishing boat owner, Portland, ME
2. Barry Gibson, Recreational Fishing Alliance, Beverly, MA
3. Ben Cowie-Haskell, Stellwgen Bank National Marine Sanctuary
4. Bill Humm, Environmental Settlements
5. Bonnie Spinazzola, Atlantic Offshore Lobster Association
6. Bruce Munson, Recreational Fishermen
7. Capt. Bob Liston
8. Chris Littlefield, The Nature Conservancy
9. Chris Powell, RI Division of Fish & Wildlife
10. Chuck Casella, Coastal Conservation Association
11. Craig Pendleton, North Atlantic Marine Alliance
12. David Goethel, NEFMC Council member
13. David Pecci
14. Dennis Heineman, Ocean Conservancy
15. Dick Allen, Consultant
16. Geoff Smith, Ocean Conservancy
17. Heather Deese, North Atlantic Marine Alliance
18. Jackie Odell, Northeast Seafood Coalition
19. John Sowles, ME Dept of Marine Resources
20. John Williamson, NEFMC member
21. Jud Crawford, Conservation Law Foundation
22. Kate Killerrain Morrison, MA Office of Coastal Zone Management
23. Mary Beth Tooley, East Coast Pelagic Association
24. Michael Bucko, RI Saltwater Anglers
25. Michael Sosik, Jr., NE Charter Service Inc.
26. Olivia Free, Massachusetts Fisherman's Partnership
27. Patrick Paquette, recreational fisherman
28. Paul Perra, NMFS Northeast Regional Office
29. Peter Cooper, American Pelagic Association
30. Priscilla Brooks, Conservation Law Foundation
31. Reede Bohne, Grays Reef National Marine Sanctuary
32. Rip Cunningham, NEFMC member
33. Ron Smolowitz, Coonamessett Farm, Falmouth, MA
34. Sally McGee, NEFMC member
35. Scott Maguire, Northeast Charterboat Captain's Association
36. Stephen Robbins III
37. Steve Edwards, NMFS Northeast Fisheries Science Center
38. Steve Perrin
39. Steve Welch, Commercial fisherman, Scituate, MA
40. Susan Farady, Ocean Conservancy

41. Ted Hoskins

## Appendix 3: Facilitator List

### *Lead Facilitator*

Jay Vogt  
Peoplesworth, Inc.  
166 Hubbard Street  
Concord, MA 01742  
(978) 371-3134  
(978) 287-5431 fax

[jay@peoplesworth.com](mailto:jay@peoplesworth.com)

### *Workshop 1: May 5-6, 2005 West Greenwich, Rhode Island*

Kathy Castro, Ph.D.  
R.I. Sea Grant Fisheries Extension Program  
University of Rhode Island  
Fisheries Center  
East Farm, Building 83  
Kingston, RI 02881  
[kcastro@uri.edu](mailto:kcastro@uri.edu)

Dave Beutel  
R.I. Sea Grant Fisheries Extension Program  
University of Rhode Island  
Fisheries Center  
East Farm, Building 83  
Kingston, RI 02881  
[dbeutel@uri.edu](mailto:dbeutel@uri.edu)

Laura Skrobe  
R.I. Sea Grant Fisheries Extension Program  
University of Rhode Island  
Fisheries Center  
East Farm, Building 83  
Kingston, RI 02881  
[lskrobe@uri.edu](mailto:lskrobe@uri.edu)

Glenn Ricci  
R.I. Sea Grant Sustainable Coastal Communities Extension Program  
University of Rhode Island

Graduate School of Oceanography  
Coastal Resources Center  
Narragansett, RI 02882  
[gricci@crc.uri.edu](mailto:gricci@crc.uri.edu)

Robert S. Pomeroy, Ph.D.  
University of Connecticut-Avery Point  
Agricultural and Resource Economics/CT Sea Grant  
380 Marine Science Building  
1080 Shennecossett Road  
Groton, CT 06355  
[robert.pomeroy@uconn.edu](mailto:robert.pomeroy@uconn.edu)

*Workshop 2: May 10-11, 2005*  
*Ogunquit, Maine*

Tracy Hart  
Marine Extension Associate  
Maine Sea Grant Program  
Bowdoin College Coastal Studies Center  
240 Bayview Road  
Orr's Island, ME 04066  
Phone: (207) 833-6521  
[thart@maine.edu](mailto:thart@maine.edu)

Dana Morse  
Darling Marine Center  
193 Clark's Cove Road  
Walpole, ME 04573  
(207) 563-3146 x205  
[dana.morse@maine.edu](mailto:dana.morse@maine.edu)

Sherman Hoyt  
Cooperative Extension/Maine Sea Grant  
235 Jefferson Street, PO Box 309  
Waldoboro, ME 04572  
(207) 832-0343  
[shoyt@umext.maine.edu](mailto:shoyt@umext.maine.edu)

## **Appendix 4: Speaker List**

Ms. Kate Smukler  
NOAA Marine Protected Areas Center  
New England Regional Office

Ms. Leslie-Ann McGee  
New England Fishery Management Council  
Newburyport, MA

Dr. William Overholtz  
Dr. Michael Fogarty  
NOAA NMFS Northeast Fisheries Science Center  
Woods Hole, MA

Dr. Lisa Wooninck  
NOAA Marine Protected Areas Center Staff  
Santa Cruz, CA

## **Appendix 5: Task Sheets**

### **INPUT SESSION TASK SHEETS**

*Marine Protected Areas  
Education and Outreach Workshops  
May 2005*

# TASK #1: PRIOR KNOWLEDGE

YOU HAVE FORTY-FIVE (45) MINUTES FOR THIS TASK

**Purpose:**

Share your prior knowledge and experience of closed areas.

**Tasks:**

**1. Introductions (10 - 15 minutes):**

Take a minute or two to share your name, where you live and work and your experience with area-based closures.

**2. Identify functional MPAs in New England (10 minutes):**

Ask: "What are one or two areas - in the marine and coastal areas of New England where you personally work, live, travel, recreate, etc. - that you feel function like an MPA?"

List one or two areas per person.

Number	Area name
1.	
2.	
3.	
Others...	

**3. Identify impacts (20 minutes):**

Ask: In your opinion, how have these areas either positively or negatively affected fisheries, habitat, jobs and the overall economy?

Pick one and discuss its impacts, both positive and negative. Move on to others as time allows.

	Fishery		Habitat		Jobs		Economy	
Areas	+++	---	+++	---	+++	---	+++	---
1.								
2.								
3.								
Others								

**SMALL GROUP REPORT**

**Reporter presents highlights to large group (2-3 minutes):**

Present one area and a range of opinions about impacts.

## TASK #2: WORKING DEFINITION OF MPAs

YOU HAVE THIRTY (30) MINUTES FOR THIS TASK

### **Purpose:**

Give input on how to interpret Executive Order 13158's working definitions of MPA.

### **Tasks:**

**1. Briefly review the Executive Order's working definition of MPAs and identify those key words that need further definition (5 minutes):**

Refer to the Executive Order's working definition of MPAs (below, and on poster) stating that "Any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein" (Executive Order 13158).

**Briefly identify those words needing further definition or interpretation.**

**Circle words on the definition poster.**

For example...

"marine environment"      "reserved"      "lasting"      "cultural resources"

**2. For the words you've identified, ask: "What do these terms mean to you?" (15 minutes):**

Pick one key term and discuss the meaning of that term as a group.

Move on to others as time allows.

**3. Have individuals write their definitions for key words on index cards, one to a card (10 minutes):**

Give individuals an opportunity to write their own definitions of key terms.

Ask: "What do these terms mean to you?" or "How do you recommend the Council interpret or define this term?"

Facilitator collects all cards for the public record.

### **SMALL GROUP REPORT**

**Reporter presents highlights to large group (2-3 minutes):**

Identify words needing further definition.

Read a few sample definitions.

# TASK #3: BEST PRACTICES

YOU HAVE THIRTY (30) MINUTES FOR THIS TASK

**Purpose:**

Give input on successful regulations and practices from existing marine-managed areas that might be suitable for use as templates for Council policy.

**Tasks:**

**1. Identify best practices (30 minutes):**

Ask: "What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?"

Start with a first example:

Record the area where the regulation or practice is in effect.

Record the regulation or practice.

Record why it might be useful as a template for Council policy.

Move on to others as time allows.

Existing Areas	Regulation/Practice	Why useful as template?
1.		
2.		
3.		
Others...		

**SMALL GROUP REPORT**

**Reporter presents highlights to large group (2-3 minutes):**

Present sample areas, regulations/practices and reasons why they might serve as templates.

# TASK #4: PURPOSES OF MPAs

YOU HAVE THIRTY (30) MINUTES FOR THIS TASK

**Purpose:**

Give input on the appropriate purposes of MPAs in New England.

**Tasks:**

**1. Briefly review the list of potential purposes for MPAs in New England (5 minutes):**

Ask: Would you add any others?

List additional purposes.

**2. Gauge support for various purposes for MPAs in New England (10 minutes):**

Ask participants to judge their level of agreement with the appropriateness of each of these purposes --- (strongly disagree, disagree, agree, strongly agree).

Give them adhesive dots, one for each purpose per person.

Have them quickly place their dots to indicate their level of agreement or disagreement with each potential purpose.

PURPOSES	- -	-	+	+ +	REASONS
Protect ecology					
Establish control sites for scientific research studies					
Conserve habitat					
Protect vulnerable stocks					
Protect cultural resources					
Other purposes					

**3. Discuss areas where there is the greatest range of opinion (15 minutes):**

Pick one area of great diversity of opinion.

Ask: "What are the reasons for? Reasons against?"

Record reasons.

Move on to others as time allows.

**SMALL GROUP REPORT**

**Reporter presents highlights to large group (2-3 minutes):**

Present highlights of group preferences and a range of reasons for them.

# **TASK #5: DRAFT POLICY**

YOU HAVE SIXTY (60) MINUTES FOR THIS TASK

**Purpose:**

Give input on what the policy should say and how it should be used.

**Tasks:**

**1. Discuss main points of what the policy should say (20 minutes):**

Ask: "What are the main points, in your opinion, of what the policy should say?"

Record main points.

**2. Discuss main points of how policy should be used (20 minutes):**

Ask: "What are the main points, in your opinion, of how the policy should be used?"

Record main points.

**3. Have individuals record their personal main points in answer to both these questions (20 minutes):**

Use worksheet that asks:

**SMALL GROUP REPORT**

**Reporter presents highlights to large group (2-3 minutes):**

Present range of opinion for main points on what policy should say, and how it should be used.

(And, or alternately):

Read individual statements.

Facilitator collects individual statements.

## **Appendix 6: Supplemental Handouts**

## Executive Order 13158

### Definition of a Marine Protected Area:

“Any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein”

## Supplemental Handout 2: Task #2



New England Fishery Management Council  
50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116  
Frank Blount, *Chairman* | Paul J. Howard, *Executive Director*

### TASK #2: WORKING DEFINITION OF MPAs

#### Final Criteria and Data Fields for an Inventory of Existing Marine Managed Areas and Response to Comments

**AGENCY:** NOAA MPA Center

**SUMMARY:** NOAA and the Office of the Secretary, Department of the Interior (DOI), on July 23, 2003, jointly proposed criteria, definitions, and data fields that will be used in development of an Inventory of U.S. Marine Managed Areas (MMAs). The MMA Inventory will provide information that will lead to the fulfillment of requirements of Executive Order (E.O.) 13158 on Marine Protected Areas (MPAs). This action provides the final criteria and data fields that will be used to develop and complete the MMA Inventory and summarizes and responds to comments received on the notice of July 23rd.

#### **Final criteria and data fields for building an Inventory of *Marine Managed Areas* (MMA):**

**Area:** Must have legally defined geographical boundaries, and may be of any size, except that the site must be a subset of the U.S. federal, State, commonwealth, territorial, local or tribal marine environment in which it is located. Application of this criterion would exclude, for example, generic broad-based resource management authorities without specific locations and areas whose boundaries change over time based on species presence.

**Marine:** Must be: (a) ocean or coastal waters (note: Coastal waters may include intertidal areas, bays or estuaries); (b) an area of the Great Lakes or their connecting waters; (c) an area of lands under ocean or coastal waters or the Great Lakes or their connecting waters; or (d) a combination of the above. The term “intertidal” is understood to mean the shore zone between the mean low water and mean high water marks. An MMA may be a marine component part of a larger site that includes uplands. However, the terrestrial portion is not considered an MMA. For mapping purposes, an MMA may show an associated terrestrial protected area. NOAA and DOI intend to use the following definition for the term “estuary”: “Part of a river or stream or

other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage, and extending upstream to where ocean derived salts measure less than 0.5 parts per thousand during the period of average annual low flow.” Application of this criterion would exclude, for example, strictly freshwater sites outside the Great Lakes region that contain marine species at certain seasons or life history stages unless that site is a component of a larger, multiunit MMA. However, upon request the agencies will work with individual states, commonwealths and territories to examine unique conditions which may affect applicability of the term “estuary”. Estuarine-like sites on tributaries of the Great Lakes will be considered for inclusion if they are located within the eight-digit U.S. Geological Survey cataloging unit adjacent to a Great Lake or its connecting waters.

**Reserved:** Must be established by and currently subject to federal, state, commonwealth, territorial, local or tribal law or regulation. Application of this criterion would exclude, for example, privately created or maintained marine sites.

**Lasting:** Must provide the same protection, for any duration within a year, at the same location on the same dates each year, for at least two consecutive years. Must be established with an expectation of, history of, or at least the potential for permanence. Application of this criterion would exclude, for example: Areas subject only to temporary protections, such as areas protected only by emergency fishery regulations under the Magnuson- Stevens Act, which expire after 180 days.

**Protection:** To be included in the MMA Inventory, the site: Must have existing laws or regulations that are designed and applied to afford the site with increased protection for part or all of the natural and submerged cultural resources therein for the purpose of maintaining or enhancing the long-term conservation of these resources, beyond any general protections that apply outside the site. Application of this criterion would exclude restricted areas that are established for purposes other than conservation. For example, the term would not include areas closed for navigational safety, areas closed to safeguard modern man-made structures (e.g., submarine cable no-anchor zones), polluted shellfish-bed closure areas, areas closed to avoid fishing gear conflicts, and areas subject to area-based regulations that are established solely to limit fisheries by quota management or to facilitate enforcement.

**Cultural:** In addition, the Executive Order uses the term cultural resources. NOAA and DOI interpret this to mean any submerged historical or submerged cultural feature, including archaeological sites, historic structures, shipwrecks, and artifacts in the marine environment. Taken together, these six definitions and criteria provide the basis for selecting sites to be included in the MMA Inventory.

### **MMA Inventory Data Fields**

The MMA Inventory database consists of 35 main fields divided into 5 main topic sections. These inventory fields are used to gather site-specific information including (but not limited to)

site description, legal authorities, management tools, habitat information, species information, location, and size. Please refer to MPA.gov "inventory database description" web page at <http://www.mpa.gov/inventory/database@description.html> for full list and explanation of the data fields.

Dated: December 29, 2004.

[FR Doc. 05-1262 Filed 1-24-05; 8:45 am]

## *Supplemental Handout 3: Task #5*



### New England Fishery Management Council

50 WATER STREET | NEWBURYPORT, MASSACHUSETTS 01950 | PHONE 978 465 0492 | FAX 978 465 3116  
Frank Blount, *Chairman* | Paul J. Howard, *Executive Director*

## **TASK #5: DRAFT POLICY**

**What should the MPA policy say?**

**How should the MPA policy be used?**

---

Name:

Contact Information:

## **Appendix 7: Raw Data, West Greenwich, R.I. MPA Workshop**

# TASK #1 PRIOR KNOWLEDGE

**Purpose:** Share your prior knowledge and experience of closed area

Group 1:

## Identify Functional MPAs in New England

What are one or two areas – in the marine and coastal areas of New England where you personally work, live travel, recreate etc. – that you feel function like an MPA?

- Stellwagen Bank National Marine Sanctuary (SBNMS)
- Groundfish Closed Areas Special Access Programs
- Western Gulf of Maine Closed Area
- Nantucket Lightship Closed Area
- Overlap/"Sliver" of SBNMS and Western Gulf of Maine Closed Area
- Great South Bay (LI)
- Waquoit Bay -National Estuarine Research Reserve
- Natural MPAs western side of Great South Channel and the northern edge of George's Bank
- Groundfish and scallop habitat areas
- Habitat Areas of Particular Concern (HAPC) designations for cod and salmon
- Monkfish coral protection areas / canyon closed areas (Lydonia and Oceanographer Canyon)
- 12" Roller Gear Restricted Area
- Closed Area I and II
- Caches Ledge Closed Area

## Identify Impacts

In your opinion, how have these areas either positively or negatively affected fisheries, habitat jobs, and the overall economy?

## Stellwagen Bank "Sliver"

Fishery (resource): Possible future confusion may be an issue due to redundancy/overlaps in policy, For example Magnuson-Stevens Fishery Conservation and Management Act and the National Marine Sanctuaries Act

Habitat: benefits from restricted oil and gas exploration.

Jobs/economy (fishery all)

+ Public Education

+ ecotourism

- Mining dredging etc,

### Western Gulf of Maine

Fishery: +ground fish resources, - lobster

Habitat: +within boundaries, - outside boundaries

Jobs: – inshore fleet displaced to complex habitat, + Recreational and other fisheries (positive)

In general in regards to fishery habitat difficult to simplify not enough data, tradeoffs +/-

## Group 2:

### Identify functional MPAs in New England

What are one or two areas – in the marine and coastal areas of New England where you personally work, live, travel, recreate, etc. – that you feel function like and MPA?

#### Around the world

15-20% functional, 80% non functional

If good fishermen participation, they work well

Seen dramatic recovery of stocks and impact on lives

Seen total closure resulting in negative to peoples lives

Issue-sustainability, different definitions of sustainability

- Biologically?
- Economically?

Include different kinds of uses

### Marine Protected Areas in New England

Not really any in Rhode Island

- Bay Island Estuarine Reserve – permanent

Spawning closure area – Block Island

Areas functioning as MPAs (not on paper)

- people have stopped fishing there
- only recreational/lobstermen

areas with healthy ecosystem areas that sustains fair amount of fishing, e.g. Southwest ledge

Strategy: pick least controversial areas to build support

Areas mostly closed to bottom tending gear – Bird Islands, Maine – Habitat closure areas that just came out.

Recent habitat closures

- Western Gulf of Maine
- Stellwagen Bank
- Cashes Ledge

Closures to fishermen get bigger and longer

Historically, MPAs

- outside of New England
- large scale
- design for sustainable ecosystem role
- best examples outside of New England

Ideally MPA protects all biodiversity, not just commercial fishing

Georges Bank Fisheries Closure Area 2

Estuarine reserves nursery

Impact of MPAs outside the MPA

- Interesting area research
- Re-supplies other areas biologically

“export” from MPAs

- Larval fish or eggs increased
- density leads to population migration
- examples in Puerto Rico

Need more sustainability from regulations

- Not boom / bust cycle
- Average age of fishermen - 40

### **Identify Impacts**

In your opinion, how have these areas either positively or negatively affected fisheries, habitat, jobs and overall economy?

Pick one and discuss its impacts, both positive and negative.

<b>Purpose</b>	<b>Fishery</b>	<b>Habitat</b>	<b>Jobs</b>	<b>Economy</b>
Stellwagen Bank	Strong Ecosystem  More protection on oil & gas	Not protected from much  Saved from sand/gravel and casino	More sustainable fisheries due to regulations  Without regulations we would have fished ourselves to	Long run benefit compared to likely crash if they did nothing

	Less fishermen		extinction	
Georges Bank	Fish Closure	Big bounce back on all scallops  Yellowtail came back  Problem: Scallops dying off  Study looking at bottom structure now	Heyday when they opened  Boom/bust  Better to spread it or need balance	Negative on shut down  Closed down boats
Western Gulf of Maine	Recreational fishery improved	Cod, Pollack, Haddock & Flounder recover	Recreational & Tourism  commercial ground fish	Recreational Fishery and Tourism

### Group 3:

#### Identify Functional MPAs in New England

What are one or two areas – in the marine and coastal areas of New England where you personally work, live travel, recreate etc. – that you feel function like an MPA?

- Buzzards Bay (net fishing)
- NB species specific flounders clams
- Georges Bank #1#2 Georges Bank Closed area ½
- 450 fathoms to EEZ
- EEZ species specific (Strippers)
- SBMS
- i.e. National Parks, State Reserves, NERRS
- Defacto UN fished Areas

#### Identify Impacts

In your opinion, how have these areas either positively or negatively affected fisheries, habitat, jobs and overall economy?

Pick one and discuss its impacts, both positive and negative. Move on to others as time allows

Buzzards Bay Fishery - don't see visual difference

Habitat -predict MPAs have positive affect, need to research

Georges Bank II Fishery - positive when accessed closed, positive when closed to protect spawning biomass, positive recruitment, less increase in catch vs. mid Atlantic

Habitat fishing the line due to spill over

Economy Overall- short-term loss long-term gain

General Concern - Consider safety Issues: Location Times Weather Conditions

### 3. Reporter Highlights

Representative of full range of views

Well managed fishery good MPA / over capitalized bad MPA

No one quite sure comes to habitat, recognized a need for more science.

No one seemed to want to voice his or her opinion

# TASK #2 WORKING DEFINITION OF MARINE PROTECTED AREAS

**Purpose:** Give input on how to interpret Executive Order 13158's working definitions of MPA.

"Any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein." (Executive Order 13158)

## Group 1:

Briefly review the Executive Order's working definition of MPAs and identify those key words that need further definition

*Terms Identified: area, reserved, lasting, protection, natural, cultural*

### What do these terms mean to you?

#### **Cultural**

- Traditional small scale fisheries

#### **Lasting Protection**

- Science based, data based, measurable
- Of a resource, not location
- Needs flexibility
- Categories for MPA
- No guarantees from other sources i.e. LNG

#### **Area**

- Designated by specific scientific criteria
- Needs *narrow* definition with national standards
- Zoning for purpose – other than fishing i.e. mining, windmills

#### **Reserve**

- Noun - Verb

### Participant index card definitions

### Lasting

- greater than one year
- Intended to be established on a permanent basis
- provides continuous level or increasing level of protection
- is established by law
- does not move geographically to follow resources
- lasting as long as necessary to achieve desired results
- depends on the purpose for the MPA, if for given fish species should consider *fish age*, or life cycle, or a specific period of time deemed appropriate for the “purpose.” Some *flexibility* or time-frame needs to be considered *because* of the dynamic nature of the marine environment. Evaluation, monitoring, time-frame and re-evaluations need to be considered (based on *good science*).

### Area

- area should be designated according to specific scientific criteria developed with stakeholder input

### Protection

- scientific, data-based protections that have measurable results that can be altered as needed
- “maintaining or enhancing long-term conservation?” What does this mean? How would this change management, for example, closed area II? This needs clarification
- identify specific natural or cultural resources for protection
- restricts significantly exploitation of resources designed for protection
- protects from multiple threats
- if looking at a fishery closure or protection from fishing effort to protect a fish stock, management needs to consider the predator/prey relationships, habitat needs of the species, and *must* consider all impacts (natural or man, ocean or land-based) on this given item (MPA).

### Reserved

- MMA definition misleading
- saved for future use

Need to add to Definition:

A phrase that says “established based on national standards.” Obviously they will need to be developed, but all agencies with development authority should follow same standards.

## **Group 2:**

Briefly review the Executive Order’s working definition of MPAs and identify those key words that need further definition

*Terms Identified: reserved, lasting protection, natural, cultural*

### What do these terms mean to you?

#### Reserved

- by laws and regulations
- set aside for something special, like a conservation easement
- strikes a universe of possible uses
- reserved in fact, not just in words
- must mean something physically, need set of boundaries
- that reserve something through implementation and enforcement, within those boundaries there are principles and guidelines that regulate activity
- should have consequences if intent of reservation is not being honored
- should be accountability to original intent of reservation
- must have enforcement, legal right to enforce
- ability to enforce

#### Lasting protection

- period long enough to restore ecological functions
- equal to recovery time for ecological function
- must be able to maintain sustain resource
- use cautionary principles
- depends on purpose...e.g. juvenile spawning areas need indefinite protection
- Lasting = permanence over time
- Aim to avoid boom & bust cycles of recovery and harvesting
- Protection that allows recovery & keeps it in a recovered state for an extended period of time
- Must allow provisions for "acts of god" / natural disasters that permanently change/transform ecosystem that was previously protected
- Should protect entire ecosystem, not just an area
- Use MPAs within MMAs to protect entire ecosystem
- Create transitional zones
- Identify and permanently close fish aggregating areas
- Closed to EVERYBODY
- No take / no impact
- Areas benefit adjacent areas

#### Protection

See role for single species MPAs (two roles)

1. Specific uses of MPAs to promote sustainable fisheries, also,
2. uses of MPAs to promote overall health of ecosystem
  - MPA that protects habitat

Cascading preserves with in a larger preserve

- Specific no take zones set in a larger multi-use zone
- Examples in Australia

### **Group 3:**

Briefly review the Executive Order's working definition of MPAs and identify those key words that need further definition

*Terms Identified: marine environment, reserved, lasting protection, part or all, cultural*

Participant Note: "safely" added before provides lasting protection in the definition

(Executive Order not a legal proceeding – should congress establish a law? Only use as a guiding principle, require executive office to write into law)

#### **What do these terms mean to you?**

##### Part or All

A fish stock? Within and between

Not comprehensive

##### Cultural

Generational fishing only areas, right to fish

Should Council influence shipwreck protection?

##### Lasting Protection

Geographic, not level of protection (similar to national parks area should be set aside)

## TASK #3 BEST PRACTICES

**Purpose:** Give input on successful regulations and practices from existing marine-managed areas that might be suitable for use as templates for Council policy.

### **Group 1:**

#### **Identify Best Practices**

What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?

Notes:

**Nantucket Lightship Closure:** good sets of scallops, closed to scalloping increase catch CPUE

Find bed of small scallops

Closed area

Open in high meat yields

#### **SNEYT**

Rebuild southern New England yellowtail

Effective seasonal closure to west industry shifted in to the east no evidence

#### **Closed area I**

Haddock up

No evidence of impact or spillover

If Council has a policy, might have missed opportunity to see scallop recovery

Cod HAPC 10 years, no report, video surveys, no improvement in habitat

No-take zones North Sea

access is sporadic, for scallop and sea scallop management

#### **Gear MPA**

12" Rollergear restricted area

Protect rocks (habitat)

Keep larger vessels off bottom - effort

Allocation to keep big vessels out

Still doesn't help other resources.

Incentives to change gear - since otter trawl is damaging

Access by gear type / level

MMA – specific gears, times, and seasons

Monkfish canyon closures/Deep-water coral canyon

-protect large marine resources (monkfish EFH)

-spawning area

stakeholder input

(Restricted to monkfish trawling and allows lobster traps)

Goal: protect EFH for managed species (monkfish): no harvesting of coral too long, no monkfish fishing occurring there anyway

\*no agreement among stakeholders/science.

Positive incentive, get increase production

Negative incentive either do it or else

Current input controls negative

If quota negative positive incentive would work better

Voluntary incentives IFQs CO-ops

5 oyster company lease

nature conservancy blue point oysters buy out

6 Breeding distrust on deep water coral, lack of transparency, more science behind it?

- measurement is important!!

White board results

Existing Areas:

Restricted area for rockhopper habitat gear

Deep water coral canyon=monkfish, lacks transparency

Nantucket Lightship scallop access program

Great Barrier reef.

Regulation / Practice

As name implies – to protect habitat

Protect monkfish EFH (protect EFH for managed species), no monkfish fishing  
Grow out of a sedentary species no fish until grow out to certain point then limited access  
Divers damage coral

Why useful as template

1. gear incentive
2. science stakeholders buy in
3. good scallop template, scallop yield with minimal bottom time

Why not useful

1. Help fish resources
2. Lacks transparency distrust other fisheries damage coral
3. Accidental benefit

Stakeholder input and control

Nantucket Lightship Closed Area wasn't designed for scallops, accidental was that scallops grew out.

## Group 2:

### Identify best practices

What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?

Eel grass policy in Rhode Island (similar to salt marsh policies) has not yet been embraced by fisheries management people. Should be embraced by everybody that has regulatory authority.

- Doesn't include pesticide use from land
- Written
- Implemented
- Used for coastal protection by CZM people for clocks, etc.
- Purpose: habitat protection based on HABITAT not species
- Been successful
- Could be model for Council

Should include best available spatial data on where species are

- Best case – **Australia**
- ecology different but principles similar
- largest MPA in world
- **multi-zone** based on careful analysis

Good process for development, learn from their **process**

- Successful, failures

Multi-zone philosophy

- Have clear intentions
- Clear management plans linked to intentions
- No take / no impact areas for research

Shouldn't let objectives go...

- if objective is to reduce mortality, don't allow "acceptable" form of mortality while prohibiting others
- regulate commercial and recreational industries together

Beware single species management

- does not take into account health of ecosystems
- very difficult for fisherman to follow, so complex
- hard to enforce

In contrast – Australia model

- What set of areas (that are as small as possible) meet largest set of goals?
- Then permanently close those and seek same outcome
- How we do it in New England is much more complex than elsewhere in the world

Have to do both

- Ecosystem approach
- Single species approach

Current system

- Adding layers on top of layers
- Pushing fishermen around from one

Must examine existing MPAs / MMAs

- Do they still make sense?
- Can we optimize this?
- Should we change/eliminate some in a comprehensive review

Dry Tortugas / Florida Keys

Channel Island – California

- great process (early stakeholder input)
- MMA in MPAs within it
- Comprehensive approach to ecosystem management
- Whole designated process with a clear timeline to do it

Beginners mind / blank slate...clear out all regulations and design ideal system

- start from "time zero"
- result of incremental changes since 1969 is haphazard
- do it fresh, do it right

- would take a few years to do this
- Council may not have authority to do it, but could possibly convene Council of regulatory authorities

We know what critical fish habitat is, but we don't know where it is

- Need much more better research
- Fishermen know where fish spawn but have no incentive to share information

Australia authority body

- Have body whose purview is bigger than fishing
- Best practice – over teaching body that coordinates...broader authority than just fisheries
  1. Ecosystem
  2. Fisheries
  3. LNG citing
  4. Wind farm citing
  5. Water pollution
  6. Sand and gravel

Take “comprehensive regional land use planning” tools from land and apply to dreams

- Ideal situation: Ideally such plans are made in huge broad context
- Current situation:
  1. tunnel vision
  2. crisis management
  3. narrow focus

**Group 3:**

Identify Best Practices

What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?

Area	Purpose	Best Practice
Channel Islands	Ecosystem Protection	Comp model optimization , habitat economy w/ stakeholders
CA (closed area)	Fisheries Production	Controlled access corridors (benefits from fisheries are not gained if people don't get access at a later time, doesn't suit purpose of sustainable fisheries)
EEZ	Single species restoration	Species specific closures
CA		Evolution of allowable use

Dry Tortugas	Multipurpose	Scientific monitoring assessment,
Great Barrier Reef		Scientific Monitoring Assessment/adaptive management
G.B Reef, Tortugas, Closed Area I/II		Zoning within MMA
CA	Enforcement VMS	

## TASK #4: PURPOSES OF MARINE PROTECTED AREAS

**Purpose:** Give input on the appropriate purposes of MPAs in New England

### Group 1:

**Briefly review the list of potential purposes for MPAs in New England**

“would you add any others?”

**Gauge support for various purposes for MPAs on New England**

“Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate.”

Purposes	Very Negative	Somewhat Negative	Neutral	Somewhat Positive	Very Positive
Protect Ecological Function				●● (2)	●●● (3)
Establish Control Sites for Scientific Research Studies		●● (2)	● (1)		●● (2)
Conserve Vulnerable Habitat		● (1)		●● (2)	●● (2)
Conserve Non-Vulnerable Habitat	● (1)	●●●● (4)			
Protect Vulnerable Stocks	● (1)	●● (2)	● (1)		● (1)_
Protect Cultural Resources		●●●● (4)		● (1)	
Protect “Big Old Fat Female” Fish	● (1)		● (1)	●● (2)	●● (2)
Sustainable Fish Protection	●● (2)		●● (2)	● (1)	
Biological Diversity and Species Richness	● (1)	● (1)		●●● (3)	

## Group 2:

### Briefly review the list of potential purposes for MPAs in New England

“would you add any others?”

### Gauge support for various purposes for MPAs on New England

“Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate.”

Purpose	Very Negative	Somewhat Negative	Somewhat Positive	Very Positive
Protect ecology Protect biodiversity Insurance against potential future threats Potential uses of biodiversity, present future generations Conserve habitat			● (1)	●●●● (4)
Restore fisheries, habitat ecosystems Biodiversity ecosystems, fisheries				●●●●● (5)
Protect Vulnerable stocks			●●●● (4)	● (1)
Sustainable fisheries protection			●●● (3)	●● (2)
Protect Cultural resources Wrecks Physical			●● (2)	● (1)
Cultural practices Indigenous practices	●● (2)	● (1)	●● (2)	
Establish control sites for specific research studies Control sites to monitor impact No take / no impact areas			●● (2)	●●● (3)

Protect public trust resources Big picture, natural heritage beyond uses Intrinsic value in natural areas			• (1)	•••• (4)
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## Discussion

- Targeted MPAs for single species appropriate in cases of vulnerable stocks
- Sustainability of fishing communities is included / assumed in many purposes referencing fisheries
- Some traditional cultural practices are harmful to the environment and shouldn't be allowed

## Group 3:

### Briefly review the list of potential purposes for MPAs in New England

"would you add any others?"

### Gauge support for various purposes for MPAs on New England

"Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate."

Purpose	Very Negative	Somewhat Negative	Neutral	Somewhat Positive	Very Positive
Protect Ecology <b>2Y</b>					•••• (4)
Reduce By-catch	• (1)	• (1)			•• (2)
Control Sites – Research <b>1Y</b>				••• (3)	••• (3)
Protect Spawning				• (1)	•••• (4)
Conserve Habitat <b>1Y</b>				•• (2)	••• (3)
Protect Stocks <b>1R</b>	•			••• (3)	•• (2)
Protect Cultural/Ecotourism		•• (2)	•• (2)		• (1)
Decrease User Conflict <b>1Y</b>	•• (2)			•• (2)	•• (2)

Protect Rare/Valued Species			• (1)	• (1)	••• (3)
Bio-prospecting		•• (2)		•• (2)	

## TASK #5 DRAFT POLICY

**Purpose:** Give input on what the policy should say and how should it be used.

**Group 1:** (turned in individual responses only)

**Group 2:**

### DRAFT POLICY

Current efforts waste of taxpayer dollars

Government built up fleet should buy it out

Average of fishermen in 40's

Should clear board – square one

No big buyout

Design system that makes sense

Giant money pit – poorly spent

Fisheries crisis – pot of gold for

- Research
- Universities
- Regulations
- science

Problem is we are over capitalizing addresses

Addresses capacity reduction then look at other tools, including MPAs

Have perfect world

Shift of resources from

- Research to buy-outs (could save money)

Must be properly controlled

- Current 1100 permits
- Need 300 or 500 permits
- Buy out permits and finish

Could cost \$1M a boat

- Buying out 600-800 permits
- Permit for Steve Welch's boat worth \$300k / boat \$700K
- Plus admin cost

- Plus unemployment
- Plus training
- Addressing capacity issues directly

### One alternative

Start from ground zero

- MPAs that makes sense
- Fleet vision that makes sense
- Develop best solution
- Put MPAs only where they should be from biological standpoint

Do thought exercise

- Assume no fishing
- Do scenarios from there
- Model economics from various scenarios
- Figure out where you want to go
- Sustainable fisheries
- Restoration goal 10%, 80%

Policy should recognize several district purposes we have recognized here

- Must take broad view
- Must detail diverse purposes
- Must say how to fulfill purposes

Council has responsibility to address public trust resources in a responsible way

- Present and future generations (this is awesome responsibility and resource of great power)

Council must take responsibility for broader view (not just fisheries) sincerity with larger view does not exist

Council should have clear statement of goals for MPAs

- What we want to accomplish and why

Recognize that MPA is

- **Important** tool
- Not **only** tool

MPAs should be held to similar standard to other controls

- E.g. "days at sea" don't meet such rigorous tests / standards and yet we use them commonly

Council should include broader representation of greater public

- E.g. science community to fulfill this broader mandate (public trust, ecosystem, etc...)
- Policy must be fair and equitable to all (very hard to do this)

## **Group 3:**

(turned in individual responses only)

**Individual personal main points – Written Responses – All Participants**

1.

- Should recognize that MPAs are *one* tool for protecting and managing marine ecosystems
- Policy should be based on the best available science
- Policy should be *risk adverse*
- Should be fair and equitable to all user groups from consumptive to non-consumptive users
- Should recognize that the goal of an MPA if used to protect preserve and restore marine public trust resources for the present and future

It should be used to protect, preserve and restore public trust resources for all users both consumptive (fisherman) and non-consumptive (beach combers).

2.

- A. A NEFMC policy must provide for either (1) a redefinition at the scope of responsibility at the Council to include broad biodiversity and ecosystem conservation applications at the MPA tool or (2) foster the establishment over and overarching administrative/regulatory body to that ensures the Councils use of MPAs for strict fisheries management objectives and the establishment of a NE Ecosystem conservation Council that achieves goals set out under #1 in coordination with the Council
- B. NEFMC Policy should explicitly recognize that fisheries resources are a product of a biologically diverse and healthy ecosystem, and should strive to use MPA as on of the tools to achieve this.
- C. NEFMC should embrace systematic, science –based , methods to implement a new system of areas that achieves multiple conservation objectives to meet fisheries and ecosystem goals and fulfill public trust obligations
- D. NEFMC policy should strive to replace some of the highly complex, single species focus, spatial management? with a simpler system of permanent closures sited based on best available science. Areas should follow zoning practices including fully protected core areas.
- E. Considering the broader definition of the Councils role a revised policy should seek to draw from a broader community of science and public sectors in filling NEFMC seats
- F. MPA policy must recognize the function of fully protected areas for science – reference areas-studies of marine ecosystem function

3. The Council MPA Policy should incorporate the levels of protection as developed for recent amendment dealing with EFH.

Maintain the purpose in the name of a management area – do not call fishery management areas the such and such MPA

Periodically review marine managed areas to determine whether simplification is possible

Council should approach spatial management as a means to address fishery management objectives, not for the purpose of creating MPAs for their own sake

Councils should consider the creation of biomass reserves

4. MPAs Policy should incorporate the existing managed areas to a comprehensive regrouping with level of manage goal for the fishery. The same science must be tied to the specific goal in the assessment of the regrouping. The EEZ should *have* a marine reserve in any current fished areas. Only areas that are un-fished could have a marine reserve.

The MPA policy to be used is only one tool in the box of tools. MPAs *should not* be used as the *only* tool. Control site MPA with sunset provision to achieve scientific research.

5. What should MPA Policy say?

- Council recognizes MPAs, including no take reserves are and important for protecting habitat, increasing fishery productivity and improving health of ocean ecosystems.
- Council recognizes MPAs can provide important areas for scientific research
- Council will consider use of MPAs including No take Reserves and other management tools to achieve specific objectives
- Council will consider use of MPAs equally with other management tools and will not hold them to a higher “burden of proof”
- Council supports effective monitoring and enforcement of MPAs
- Council will evaluate effectiveness of MPAs on a timeline that is consistent with objectives of the MPA
- Council will coordinate with other agencies to help ensure goals and objectives of MPAs are achieved
- Councils should provide an open transparent process for input from all stakeholders

How should MPA policy be used?

- Council should use MPA policy to consider and evaluate MPA proposals in a consistent, predictable and transparent manner

6. What should the MPA policy say?

- “Area” designation, needs to be based on specific scientific criteria, needs to be smallest areas possible to achieve stated purposes
- “lasting” needs to be in place long enough to achieve objectives and no longer
- Must have clear purpose to protect ecological function and the habitat of vulnerable species
- Must be science-based and managed adaptively
- Must provide for ongoing monitoring and have measurable goals.
- Must have stakeholder buy in
- Should be used as several tool

7. What should the MPA policy say?

- Should define MPAs
- Should indicate specific purposes (sustainable fisheries, refugia)
- Should differentiate from EFH policy, including habitat closures
- Should differentiate from EBFM policy, including habitat closures
- Should state it’s an alternative to traditional management

8. NEFMC policy is to utilize area based management (e.g. marine management areas) for sustainable production by minimizing adverse impact to habitat, reducing by catch, protecting artisan fisheries, and increasing CPUE. These will be considered levels I, II, III.

The NEFMC will also consider no take refugia (e.g. MPA reserves) (a level I closure) closed to all fishing and any human activity that may impact ecological function. The purpose of these MPAs is to provide controlled research areas undisturbed by human impact, and to determine the value of MPAs to sustainable fisheries production by protecting habitat and “Big Old Fat Females” IT should be adaptive and flexible.

9. What should the policy say?

- Should focus on vulnerable *fish species* (spawning large fish) (highest priority)
- Second priority should be given to habitat types for these species (even water quality)
- Should consider the life cycle of a given-vulnerable fish species i.e. should be very careful to consider the goal/purpose and *place*. Aside from the boundaries of the MPA, the place should consider oceanographic conditions
- *Adaptive Management* should be key (monitoring flexibility) rather than “lasting protection” which is quite vague and in a few years, with better science, and may be considered inappropriate or conflicting with the ultimate goal.
- It should be made clear that MPAs are a *tool*, one of the *tools* that can be used to achieve an intended result. Not the only *tool*.
- Should also, to the best extent practical (the place selected), reduce (if it is a no take zone) the *economic* loss while having the greatest possible benefit to the resource

10. What should the MPA Policy Say?

- Each restricted area should have a clearly stated purpose

- Each area should have a major monitoring and assessment component
- Management should be adaptive to allow access to fish resources when sustainable for a period of time (the period of time should be clearly stated)
- Should address fishery issue only
- Should only be employed when benefits are clear

**Appendix 8: Raw Data, Ogunquit, M.E., MPA Workshop**

# TASK #1: PRIOR KNOWLEDGE

**Purpose:** Share your prior knowledge and experience of closed areas

Group 1:

## Identify functional MPAs in New England

“What are one or two areas – in the marine and coastal areas of New England where you personally work, live, travel, recreate, etc. – that you feel function like an MPA?”

Any time you close a clam flat = MPA

- For pollution, clam management – any reason

MPA understanding is more permanent, MMA broader and more inclusive

Buzzards Bay

Restricts mobile gear for commercial fishing and has for long time

Federal Horseshoe crab reserve

- Off Delaware Bay
- Can't take horseshoe crabs

Rolling closure in New England

- More with spawning or cod
- Western Gulf of Maine closed area
- Restriction on bottom fishing on Jeffries Ledge

Closure of federal zone – EEZ against taking of striped bass on Atlantic Coast

Taunton Bay closure dragging ban

- Can't drag for scallops, mussels, urchins, etc...
- Doesn't ban hand-harvesting

Great Salt Bay – interesting

- Some opposition from clam draggers
- End of Damariscotta River

Herring Fisheries – three areas

- Inshore area 1A
- Areas 2 & 3

Network or areas in state of Massachusetts designated

- Massachusetts conservation area
- Mass Division of Marine Fishery responsible for designation areas?
- Inner Quincy Bay
- Designated
- 33 total

- Targeted as MPAs by Ocean by ocean consumer
- Billsgate etc.
- Stellwagen Bank
- Many programs not making restrictions
- Protected from industrial use

Cod spawning closure area off Nahant

- Fairly small
- Seasonal areas – month of December usually

Restrictions off one mile in MA for trawling

Winter flounder spawning area – recommendations to prohibit dragging

- Niantic River
- No dredging

**Identify Impacts**

In your opinion, how have these areas either positively or negatively affected fisheries, habitat, jobs and overall economy? Pick one and discuss its impacts, both positive and negative.

Area	Positive Impacts	Neutral impacts	Negative Impacts
Stellwagen Bank Sanctuary	<p>Positive for habitat fisheries – prohibition on ocean floor mining, casinos, etc</p> <p>Comes with good education program – lots of good information available for public – commitment of staff interacting with public</p> <p>Cooperation between agencies to re-route pipelines desirable</p> <p>Provides good habitat for high quality stock – could be positive for fish production – whales and tuna go there</p> <p>As advertised destination for public, it benefits economy – charter fishing, whale watching</p>	<p>Designation of sanctuary was guaranteed not to impact fisheries hasn't hurt or helped</p>	<p>Reduction in economic opportunity from loss of natural resources – oil, gas etc...</p> <p>Designation does not protect it from pollution nearby – out flow pipe impacting primary production</p> <p>Redoing sanctuary plan must involve Council changes – other sanctuaries have that authority themselves</p> <p>Potential economic loss from fisheries because it's a destination</p>

Western Gulf of Maine	<p>Fisheries, habitat, jobs, economy = more and better fish if you fish with gear that's allowed to go in</p> <p>Dragging would take us right back to where we started</p> <p>Shouldn't be degraded at all Current use protects habitat</p> <p>Good for charter</p>	Different fisheries affected different	<p>Not able to enforce against haddock takings (probably off bottom)</p> <p>Displaces effort into other areas</p> <p>Cuts off fleet from profitable fishing grounds</p> <p>Bad for commercial</p>
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Jeffrey's – older fishermen have said how rocky Jeffrey's was

- Coming back takes a long time, would not want to see it degrading again

Worried that mid-water trawler that unloads haddock by mistake

- can fish 5 ft off bottom and not catch haddock
- people saying they are catching haddock 100 ft off bottom, in water column

## Group 2:

### Identify functional MPAs in New England

“What are one or two areas – in the marine and coastal areas of New England where you personally work, live, travel, recreate, etc. – that you feel function like an MPA?”

Western Gulf of Maine (differentiation b/t habitat and mortality closure  
 Caches Ledge Habitat Closed Area  
 Sheepscol River Bay Cod Enclosure  
 Cape Cod Bay Right Whale (not sure of closure, but considered an MPA)  
 Georges Bank I/II  
 Stellwagen Bank  
 Petit Manan National Wildlife Refuge (different set of purposes of regulation)  
 Jefferies Ledge  
 Unexploded ordinance areas  
 State of Maine Waters  
 Rachel Carson Sanctuary  
 Buzzards Bay (designated area that restricts certain fishing  
 Kennebec River Stripped Bass Special regulations Area  
 Bald Eagle Nesting Areas/Critical Habitat regulations/ Endangered Species  
 Endangered Species rivers protected for Atlantic salmon identifies critical habitat  
 Wells National Estuarine Reserve

### Identify Impacts

“In your opinion, how have these areas either positively or negatively affected fisheries, habitat, jobs and overall economy? Pick one and discuss its impacts, both positive and negative.”

Area	Positive Impacts	Negative Impacts
Western Gulf of Maine	<p>Positive impact on recreational fishery, jobs and the economy</p> <p>Positive impacts for habitat</p> <p>Good tool for rebuilding</p> <p>Good for research (benthic)</p>	<p>Lack of access to commercial fisherman, particularly small fisherman hit the hardest</p> <p>Loss of fish supply</p>
Cape Cod Bay Right Whale	<p>Provides protection for right whales</p> <p>Money directed to modify gear</p> <p>Added protection for non target species</p>	<p>No set determination on where gear should be, burdensome to commercial fisherman</p> <p>Timeliness of data, real time issues, implementation with potential larger affects on fisherman that may not be indicative of hat is really happening</p> <p>Increased pressure on adjacent areas in the context of moving gear out, have to put it somewhere</p>
Ground Fish Rolling Closures	<p>Protects aggregations of migrating codfish</p> <p>Recreational fisheries not excluded from closure</p>	<p>Results in unsafe fishing practices by making small boats go further and further from shore</p> <p>Efficiency, regulations/closures may not coincide w boundaries, regulation schedules differ from fish schedules</p> <p>Economic difficulties, hardships on onshore processors, loss of supply to processors</p> <p>Expense, cost of accessing open areas</p> <p>Day-At-Sea used up as steaming time.</p>
Stellwagen NMS	Restrict offshore industrial activity	

	Educational opportunities, research opportunities	
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### Group 3:

#### Identify functional MPAs in New England

“What are one or two areas – in the marine and coastal areas of New England where you personally work, live, travel, recreate, etc. – that you feel function like an MPA?”

- Stellwagen NMS
- Ground fish Closed Areas I/II
- Nantucket Lightship (NLSCA)
- WGOM Closed Area (including Jeffrey’s) (in areas highest cod catch rates)
- Cashes Ledge
- Rolling Closures
- Seasonal Area Management Area (Whales)
- Coastal Land Trusts Rachel Carson (marsh, intertidal)
- NERR’s (Wells etc.)
- Habitat Closed Areas
- HAPC’s
- Cable Areas
- Clam Closures (shellfish conservation areas)
- No discharge zones (SA Waters), Petit Manan
- Natural Refuge areas (too deep, type of bottom, weather undesignated)
- Harbor Porpoise Measures

#### Identify Impacts

In your opinion, how have these areas either positively or negatively affected fisheries, habitat, jobs and overall economy? Pick one and discuss its impacts, both positive and negative.

Area	Positive Impacts	Negative Impacts
Western Gulf of Maine -permanent ground fish -habitat closure -rolling closure	Spawning protection, migration  Stock rebounds  Biomass protection for cod  Corridor for cod distribution inshore/offshore-north /south	Displace efforts, need other measures too  Mass inshore cod take, heavy hit when come in too feed  Closed wrong half  Critical to understand displacement to quantify positives/negatives of closed areas

	Feeding of breeding population Feeding area for juvenile haddock	(ex habitat closures)  Displaced effort can be on a fishery as well as on an area, need to explore motive of displacement  Need data on impact to the environment  Increased opportunity for whale entanglements b/c buffer wasn't created, lobstering allowed  Economic impact
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Notes: Notes on why people are here were provided,

Functional MPA's. Consider both areas protected by regulation. Those protected naturally (ex uncontrolled and untrollable bottom etc., however with advance of technology the natural refugia are no longer protected – can result in stock collapse, MPAs could provide protection to the newly threatened areas

Notes on Chart, Closed areas in General:

Negative-

Displace efforts, need to close hardest hit areas, stock rebounds may or may not be due to closure (appears as though people feel that cause and effect relationships have not been established, there needs to be some demonstration of c/e, results may be good or bad)

There is a need for data on displacement efforts to document impacts of MPA's

Need to consider impacts on species not only area

Data may exist; need to document and notice fishermen for displacement

Licensing?

Positive-

Protection, to capture highest catch rates for cod in spring

# TASK #2 WORKING DEFINITION OF MARINE PROTECTED AREAS

Purpose: Give input on how to interpret Executive Order 13158's working definitions of MPA.

Briefly review the Executive Order's working definition of MPAs and identify those key words that need further definition.

"Any area of the marine environment that has been reserved by federal, state, territorial, tribal or local laws or regulations to provide lasting protection to part or all of the natural or cultural resources therein." (Executive Order 13158)

## **Group 1:**

*Terms Identified: area, marine environment, lasting*

### What do these terms mean to you?

#### **Marine Environment**

- Pin it down, pretty broad even down to differing times of the day

#### **Area**

Current/defined, but not very descriptive/useful when identifying specific areas

- e.g.: change rock or ledge
- what about U.S. EEZ

Definition specifies geographic coordinates: lat/long, etc...

Has to define an area as Taunton Bay, which is hard to define by lat/long only. Tidal sill affects area of Taunton Bay

Moving areas are problematic, e.g. tidal region, bay, river, etc...

Determining other ways to define would be useful: If you were to designate change "Gulf Stream MPA"

- WATER MOVES

Defining by geographic area is a big part, but need room for other means to set boundaries to areas...

- For example: if protecting a wreck, information on location and depth is needed, think three dimensionally

- Lat/Long vs. GPS is either better

Tidal boundaries included in deeds – wouldn't be that difficult to give coordinates

Depends what you want to protect and how you want to protect it

We define other systems – children have names, can't we import these ideas into how we think and define MPAs

'Area' needs to encompass *what is being protected* and will be specific to each such as protecting a fixed resource (wreck) vs. a moving resource (fish, water)

Changeable by the weather, difficult to plot

Consideration of when an individual would know whether he/she is in an area closure

- Based on temperature
- Difficult to know if not geographically defined and static

Even with protection for an MPA things can happen: pollution coming in from outside the MPA...so: how far should definition go?

People behave differently based on their position according to line, not achieving goal of protecting characteristics or set of characteristics

Defining things is somewhat defensive: Thinking about who might use a definition against you...

In the case of a moving boundary, ask what would enable a person to provide a satisfactory boundary?

Drawing of lines may have the effect of causing other problems: e.g. change fishing pressure on the 'open' side of a line

Species that need protection in habitats other than marine environment – anadromous, for example, MPA definition should include protection in fresh water that would benefit anadromous species

### **Lasting**

Protection for one day, year to year not lasting protection

Depends on purpose of area – if purpose is to rebuild stock, may not need area to be "lasting"

For purpose of stock recovery, should be mechanism that allows for expiration of areas

Once proven stock reestablished

MMA – anything goes

MPA – areas protected in some way year round

None of us can go back and say what the intent of the law is, and it was written vague for this purpose

Short vs. long term closures = MPA vs. MMA

For specific stocks, sunset pates are need, to allow sustainable harvest on other management approach...

### **Participant index card definitions**

**Area:** definition is confusing or problematic as it may be difficult to define an area entirely with geographic coordinates. For example, perhaps a place like Taunton Bay would be best

described by a set of geographic points and tidal conditions. For the purposes of enforcement, there must be clear geographic coordinates that allow users to know when they are within boundaries

**Lasting:** Is a short term (say 1 day) but repetitive area regulation really and MPA? This definition seems problematic. We ought to reserve the term “MPA” for those areas that provide year round protection to all or part of the natural or cultural resources therein. The NEFMC’s habitat closed areas provide “lasting” protection which in the case of these areas, mean year round

(MPAs require System Thinking MPAs are inherently dynamic)

**Marine Environment:** geology, bedrock, surficial geology, algae, sponges, corals, water moving by tidal/wind-driven currents, inhabited (temporarily) by various species, crossed by boats, interacting with weather/climate.

Protect a geographical area what about currents and species that come and go?

I see a need to have a fuzzy boundary that acknowledges the dynamics of marine environments. These are changeable systems, not places. How to define a system or process? Input any outflow must be taken into account.

Drawing a line on a map with fixed coordinates creates a class of problems resulting from the definition itself.

No protection is truly lasting in the sense of “permanent.”

### **Types of MPAs**

**Place-based:** defined by 2-D area, characterized by long-term protection, either indefinite or permanent

Problem:

Usually refers to bottom area protection (habitat) but, Marine “areas” are 3-D including the water column from bottom to surface, and that column changes with tides, winds, season, day/night – so what is really being protected, that which stays put, or that which passes through?

**Quota-based management:** for the short term (day trip season), Also, this is a kind of species or resource management, which is very narrow in focus

**System-based:** MPA which is ecosystem-based, includes management focusing on ecological processes, time-series events and relationships, energy flows, cycles, inputs and outputs. This allows for adaptive management based on trends and expected states

**Threat-based:** MPAs to confront the dangers of pollution, contamination, over harvesting, invasive species and disease.

**Research/education-based:** MPA to learn how humans impact marine ecosystems. Allow activities if monitored to increase understanding, may lead to more vigorous/restricted forms of protection.

## Group 2:

Briefly review the Executive Order's working definition of MPAs and identify those key words that need further definition.

### What do these terms mean to you?

#### Lasting

- important part of defined areas (MMA & MPA)
- is it something that happens every year for months does this apply (example rolling closures for GF)
- areas where research can be conducted for 10 plus years and be unfetter (not in perpetuity)
- depends on the purpose of the site
- may not be necessary for all kinds of research
- could be interpreted as "event specific" e.g. spawning areas
- deep sea corals are complex habitats with long recovery times. This may lead towards a different purpose
- maybe "lasting" isn't a good word, maybe use as perpetual
- the term lasting could be the strength of the definition because it is not too specific?
- should say in your goal statement what the term "lasting" means e.g. mortality closure vs. habitat closure
- greater access to the process for working class people-more personal approach needed
- concept of natural heritage MPAs including traditional fishing communities e.g. Monhegan Island, ME
- every law policy and regulation was meant to be changed at sometime – which goes to the use of the term "lasting" – this generates difficulty in using the term such as "lasting"
- a long term MPA needs to be re-evaluated at regular intervals to ensure that it is serving its purpose
- sustainable use MPAs may use dynamic interpretations of "lasting"
- adequate and effective regulations to push an issue through quickly e.g. skate FMP put a plan through quickly to get something on the books
- research critical
- essential to definition
- 10 year for research
- depends on purpose of the site
- event specific

"Perpetual" might be best definition

- flexible specificity may a good strength to allow for future interpretation
- greater access to process is needed to give fisherman more input now and in policy implementation, definition
- all regulations are made to be changed which conflicts with "lasting"

- evaluation on regular interval to evaluate goal achievement-periodic review
- must be adequate and effective

### **Cultural Resources**

- What does cultural include?
- Includes natural resource dependent communities

### **Index card definitions**

#### Lasting

- not rigidly defined, but flexible to be interpreted on a case by case basis, BUT the limitations need to be reviewed on a periodic basis. For rebuilding a sustainable resource, the review should occur no less frequently than every five years.
- a marine area reserved to provide for sustaining protection to any resource or habitat in the marine ecosystem, the length of which can be variable based on identified goal
- continues for the period of time necessary to achieve the goals of the protected area
- long enough to achieve the goals or objectives of the MPA
- the term lasting could be defined as: ensuring, community sustaining, ecosystem solidifying
- adequate and effective for a period of approximately 10 -15 years
- means a sufficient amount of time, usually long term, to achieve a certain purpose, means something with an expectation of permanence or renewal, not subject to automatic expiration?

#### Cultural Resources

- areas or resources that provide sustained participation for communities for jobs, recreation and in particular livelihoods dependent on natural marine resources for viability.
- should not include traditional uses unless they are also religiously based
- human activities or artifacts of it tied to a specific area or natural resource
- historical artifacts, historic communities, natural resource dependent human communities

- should include coastal fishing villages, humans, children, families, nuclear families
- natural resource Dependent communities and industries
- means certain aspects of the human component of and / or footprint upon the marine environment that may warrant certain protection, without putting natural resources at risk

### Group 3:

Briefly review the Executive Order's working definition of MPAs and identify those key words that need further definition.

*Terms identified:* area, to, provide, lasting, protection, part, natural, cultural, resources

#### What do these terms mean to you?

##### Area

Not just any area will work. MPAs have associated purposes; areas need to be consistent with those purposes

- size shape duration, location, numbers level of protection, other characteristics
- must link to purposes
- good one should move in space and time if consistent with purpose
- should be re-locatable or movable or flexible according to purposes (e.g. Rolling closures)
- areas should have flexibility built in depending on purpose
- should be as dynamic as the oceans
- "area" should be "volumes" implication is 2D, volume is 3D, area implies a single space, volumes can be moving
- highly dynamic (fisheries mobile species-----permanent areas (coral)
- adaptability along a continuum (related to purpose)

##### To

- setting up areas for education research does not fit with this definition (to provide lasting protection)
- could and should be broadened
- research is big part of Executive Order so perhaps it is not restricted after all
- should find way to include research, by protecting natural and cultural resources using research and it does fit
- research reserves should be included

##### Provide

- to fisherman, this means “allocate,” allocation of the resource

### Lasting

- lasting equals permanent
- lasting equals as long as it takes to accomplish task or purpose
- lasting varies case by case
- should be scales to purpose, equals “purposeful”
- provide purposeful protection, data should tell you how long to be lasting
- one individual commented that this doesn’t include a “temporal” aspect that “lasting” does
- data should tell you how long lasting should be
- NEED GOOD DATA TO MAKE THESE DECISIONS
- need data first to make decisions, must stand with data
- “purpose limited” duration lasting (conservation sufficient to achieve its objectives purposes)

### Protection

- recognize many levels of restriction which are possible
- not “protected for me” like some fisherman see it but “protected for public trust”
- possible use: MMA =all else MPA=not take
- different communities use these terms in very different ways at present
- from these processes, hopefully, we can come to an agreed upon use for MPA as a term
- should identify threshold of environmental impact based on vulnerabilities

3 steps in defining protection:

1. should understand vulnerabilities of area
2. should establish threshold of use below harmful impact
3. should limit control uses below that threshold

## **Participant index card definitions**

### Lasting

- an MPA is an area or areas of the marine environment that has been reserved by.....laws to provide protection to all or some parts of the areas or regions ecosystem habitats, biodiversity, species and or natural or cultural resources lasting for a period sufficient to meet the purpose of the MPA, or to create opportunities for research or education within an at least partially unexpected area.
- needs to be defined as lasting as long as the need is present. Not lasting *forever!*
- “lasting protection” must be defined in such a way to indicate the correct amount of time in accordance with the protection provided to achieve the original purpose of the specific MPA. “Lasting Protection” must also be determined on a case by case basis; according to each MPA.

If an MPA is established as the result of a primary conservation goal, the word “area” must be changed to show that it is not necessarily a state location.

Definitions set forth in final criteria and data fields for MMAs are too restricted and will be counter productive to MPA operation, success, and be a disincentive to prospering MPAs. We all agreed that terms such as lasting should be scaleable to purpose yet MMA definition doesn't allow for this due to expectation of permanency. Another example, area does not include areas whose boundaries may change over time in response to change of resource (i.e. biological changes). This needs to be able to adapt in response to these changes.

- Definition of "Protection" should include:
  1. an understanding of the vulnerability of an areas or functions
  2. recognize a threshold of unacceptable impact
  3. move human use towards uses or activities or cumulative use below that threshold

What I sense is missing in the definition is the adaptive nature which is required by a changing reality (natural resource), not to mention changing values (i.e. what are value, and its "relative" value)

## TASK #3 BEST PRACTICES

Purpose: Give input on successful regulations and practices from existing marine-managed areas that might be suitable for use as a template for Council policy.

### Group 1:

#### Identify best practices:

“What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?”

#### **Buzzards Bay**

Regulation/action: restrict to set mobile fishing gear

Why: Protected benthic habitat, protect nursery, biodiversity leads to greater fish populations.

Should lead to greater fish populations and to healthier ecosystems

#### **Western Gulf of Maine** – restriction on bottom-tending mobile gear

Action/Regulation – closure to mobile gear, oil for midwater

Why: its working, fishing improved bottom habitat improved...keep it going

#### **Canyon closures**

Action: closed to protect sensitive non-fish species

Why its good/positive: Good because a protection of non-commercial species, first example in New England

Protect corals

Benefit from fish?

#### **Striped bass** (prohibition in EEZ)

Best practice is that just one part of overall management plan

Action: closure to take

Benefit: This was *part of a total plan*, one piece of a puzzle. “The MPA was 1 tool used in the plan”, not always the only tool.

#### **Taunton Bay**

Action: No dragging (scallops)

Benefit: Continued habitat protection, originally given by a bridge. Community action as a benefit.

Designed specifically to protect eelgrass, but eelgrass dies back = shows that complex system

Increasing pressure on resources if protected because only ones left

General Trends: If had commercial fishermen here might have different perspectives on benefits from areas closed to bottom tending mobile gear; although mobile gear sector has been supportive of closing some areas.

### **Nahant Cod Closure**

Action: **Temporary**. Prohibition on fishing for certain periods of time

Areas not well defined – it's based on an aggregation of fishing

Dynamic, able to respond quickly to the situation

Closure spawning related, difficult to pinpoint exact timing of closure

Benefit: Defined space, short duration: It opens back up after the need to close it passes. The closure responds to the need – DMF was nimble in their action on this...

\*Important to note that once objective was achieved closure was opened

Observation: completing users getting together can potentially arrive at creative solutions:

Example: Submersible mussel raft.

Example from aquaculture – good to let opposing views/competing users get together and work out compromise

**Monomoy NWR** – example that looked at broader principles ecosystem-wise rather than just individual species management

Action: Closed to taking horseshoe crabs, also, no boat landing

Benefit: The action is toward a larger, ecosystem approach, there are some other examples (bird protection), the regulations also allow for some other uses.

Identified what the primary purpose and designed regulations to achieve that purpose

As a general rule toward best practice:

Identify the problem

Space

Time

Species

Identify a **specific objective**: the reason for the MPA (implies responsibility to monitor and measure the effects of the action), Georges river clam harvest cooperative.

Natural **responsibility** to monitor whether sites are meeting their objectives, must measure

## **Group 2:**

### **Identify best practices**

“What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?”

### **Stellwagen**

Specific gear modification/prohibitions

Sand and Gravel prohibitions oil and gas, keeping out industrial use prohibited in sanctuary  
(Research overlap in WGOM with Stellwagen)

### **Western Gulf of Maine**

1. What's effective depends on who you are asking – the benefit of prohibiting commercial ground fish gear has been reduced mortality. However, is this a good template? Designed to reduce mortality, it could result in increased biomass; there is some monitoring, but not a direct Are large closed areas a good tool?

Question, as a template perspective are MPAs to reduce mortality? MPAs as a tool to reduce mortality

2. Habitat Closed Area within mortality area within the western gulf of Maine effective protecting habitat

Monitoring a big part of templates.

Question/debate over effectiveness

Prohibition of commercial ground-fish gear

Habitat closure has been effective for protecting habitat

Specific targeted measures may have positive or negative consequences/prohibitive measures may have unintended bonuses

Debate targeted information, depends on goal, debate over effectiveness and goals

Research and monitoring could be tailored to area and goal of area

Effectiveness needs to be measured on the areas purpose

### **Rolling Closures**

Practice- commercial gear prohibited by time and area results in codfish closer to shore

Protecting migrations of cod

Rolling closures, debatable increase in biomass, have some sense that they have increased biomass and spawning stock, have a sense that it increases but the cause effect is not proven

Rolling closures seasonal and vary in time, not direct results at the same time, may help in the future, but there is no proof.

(Unintended consequences are not a good template; you should not manage based on an unintended consequence. If you believe one's areas unintended consequence will happen in your area, may not actually be the case and your management may not works towards you goal.)

### **Bald Eagle Nesting Site**

An example of an area with well defined targets (nesting sites). Having a solidified target is effective for protected areas.

### **Closed Area 1**

#### Mortality Closure

Best practice special access programs to target special species allows harvest of abundant biomass

Encourages gear modifications to be species selective (to increase selectivity)

Marked economic benefit for shore side facilities

## **Group 3:**

### Identify best practices

“What are examples of successful regulations and practices for existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?”

1. Barrier Reef marine Park Authority
  - Re-evaluated management plan for science, stakeholder, politics,
  - Great example of best management practices and a wholesale review of how they manage great involvement by the public
  - Cross referencing of keywords of comments
  - Thanking participants for comments and give them a link to comment database
  - Managing all the different uses doing it in a transparent process
  - Science parts were good too
    - technical details were apparent
    - used MARXAN
2. Florida Keys
  - Comprehensive set of regulations for all potential uses- not just fishing-related impacts
  - Recognize the need to integrate coordination and planning of all uses (MPA policy should)
3. SBNMS
  - Multi-tiered representation structure
  - Process doesn't cut off feedback loop
  - Harbor porpoise plan has produced good results
    - set of measures more than successful
    - gillnet closure and use of pingers
4. Haddock SAP's
  - Have to try to develop and take advantage of technology to solve problem, e.g. separator trawl

- If any way can build in performance based standards-evaluate and modify as a result e.g. Manomet CCS developing gear technology and conservation engineering
  - Have areas met their pre-ordinance goal? Ask wider public for input here
  - Goal or measure of success has never been stated in area closures of NEFMC and should be stated at the outset
  - Greater risk in some areas than others need a clearly stated measurable goals
  - Is there a re-assessment point or continue reassessment?
5. Atlantic Right Whale Take Reduction Plan (TRT)
- closed areas when whales are seen
- dynamic process
  - areas are too big
  - by the time areas are closed to protect whales, whales may be moving out of the area (DAMs)
  - SAMs seasonal areas more successful
6. Western Gulf of Maine and Rolling Closure
- Goal clearly stated and successful
  - There are fish left to get in area for charter fleet
  - Not spawning closures
  - Closures to protect "big old fat females"
  - Limit fishing effort
  - Issue specific closure
  - Need layering, different regulations for different purposes target solution to the problem
  - MPA planning for biodiversity is different than planning for fisheries

## Group 4:

### Identify Best Practices

What are examples of successful regulations and practices from existing marine-managed areas that the Council could possibly use as templates in developing policies for MPAs?

### **Groundfish and Habitat**

Permanent closures

Seen values

Like to see activities allowed reduced, limit any extractive activity theme

Potential for spillover out of Canyon closures

### **Rolling closure**

Value of closure negated by heavy harvesting

Needs government research in these areas

Determine should they increase or decrease

If they are closed to some should be closed to all, habitat closures should be closed to everybody

### **Closure Areas**

May be appropriate to close the bottom while leaving top open to activity

Really important to figure out impacts of various gears

Gear is what needs to be controlled as opposed to everyone shift from higher impact gear to lower impact gear

Best Practice: **Habitat is not just the bottom of the ocean**: Jeffrey's ledge

Should be closed to everything to protect habitat

Must have very clear specifications or what the **objectives** are

Seems ridiculous to allow some uses while current management is oriented to ecosystems management

### **Cashes Ledge closure**

- First one we were allowed to draw in an **odd shape**
- Included cashes basin
- In old system had to be boxes/squares for coast guard enforcement

Marine protection should mean no take/no impact/no access (except government research)

### **Jeffrey's Closure/Cashes Closure**

- Cover variety of depths
- Best practice
- Fish do vast movements based on temperature
- Have value because they cover multiple areas in which fish live

In many cases we have substituted one sort of extraction for another

Dead fish is dead fish

Recreational fishing supplanting commercial fishing in many areas

Modify radical idea by

**Implementing sunset legislation** to reconsider change at a future date

Best practice: **design closures based on the science** rather than politics

What is politically accepted

Best Practice:

**Think beyond fisheries management and abundance**

**Coral** is an example

We should step up and close it based on its value – natural heritage

### **Monkfish canyon closures**

- Industry support
- Strong science
- Political support

Best Practice:

Should extend our concept of marine protected areas to the land

- Eliminate land based poisons
- Eliminate chemical applications that drain into ocean
- Eliminate building on coast
- No progress at present in this area (we see it in fishing)

- Creating a toxic that kills them

**Pew Commission/US Ocean** – ocean report recommendation integrated ocean management plan

- Fisheries is one sector
- Goal: protect the ocean

Best Practice:

- Given how political it all is
- Do what Council can do
- Try to coordinate with other agencies as best as they can

Best Practice:

- **Designate** “essential fish habitat” – be a **voice**
- Has impact on others
- Active habitat protection program is a must

## **TASK #4 PURPOSES OF MPAs**

Purpose: Give input on the appropriateness of MPAs in New England

### **Group 1:**

#### **Gauge support for various purposes for MPAs on New England**

Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate.

Yellow (Y) most appropriate purpose

Red (R) least appropriate purpose

<b>Purpose</b>	<b>Very Negative</b>	<b>Somewhat Negative</b>	<b>Neutral</b>	<b>Somewhat Positive</b>	<b>Very Positive</b>
Protect ecology			• (1)	• (1)	•• (2)
Control sites		•• (2)			•• (2)
Conserve habitat				•• (2)	•• (2)
Protect vulnerable stocks				•• (2)	•• (2)
Protect Cultural resources				••• (3)	• (1)
Target or limit a practical sector	• (1)			•• (2)	•• (2)
To have wild places				•• (2)	• (1)

**Wild places** easy to support in concept but the “where”\ is difficult

**Ecology**

Neutral for: lack of clarity in definition such as “what does **protect** mean? Points up need to be **specific** with each particular MPA

Very positive: Because area-based management allows people to get at **ecological** effects/issues

The ecology of an area **is** the resource

Addresses full ecology of an area “comprehensive approach”

**Wild places**

Neutral: should fall under research control category

Strong believe in protecting wild places – biggest concern is WHERE wild place is

Depends on definition of “Wild”, just being able to enjoy?

Answer allows fishing but is still 2 wild places

Difficult to put dots on purposes

**Control sites**

Slightly negative because...establishing controls and assessments cost money, just be sure that closures not don't just for sake of doing them

Also, slightly negative: some proposed control sites are not really control sites: - management actions are already underway in those areas

Ability to do assess and monitoring must be tied to decision to establish MPA (or not)

**Control Sites**

Critical, if we are to understand human impacts on marine ecosystems

Have ongoing closed areas that have bottoms in 2 recovery stage

Why go out and limit additional user groups on establishing new areas

Look at existing sites potential control measures

**Group 2:**

**Gauge support for various purposes for MPAs on New England**

Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate.

Yellow most appropriate purpose

Red least appropriate purpose

<b>Purposes</b>	<b>Very</b>	<b>Somewhat</b>	<b>Neutral</b>	<b>Somewhat</b>	<b>Very</b>
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	Negative	Negative		Positive	Positive
Protect Ecology <b>1Y</b>		• (1)		•••• (4)	•• (2)
Scientific Research Control Sites	• (1)	• (1)	• (1)	• (1)	•• (2)
Conserve Habitat		• (1)	• (1)	• (1)	•• (2)
Protect Vulnerable Stocks				•••• (4)	• (1)
Protect Spawning Stocks				••••••• (7)	
Protect cultural resources		• (1)	•• (2)	•• (2)	• (1)
Protect biological diversity <b>1Y</b>				••• (3)	•• (20)
Protect special ecological feature			• (1)	•• (2)	•• (2)
Promote Sustainable Resources <b>2Y</b>			• (1)	•• (2)	• (1)
Sustainable Gear Use <b>2R</b>			• (1)	•• (2)	•• (2)
Use Zoning <b>4R</b>		••• (3)		•• (2)	
Protecting Fish Communities <b>2Y</b>			• (1)	•• (2)	••• (3)

### Group 3:

#### Gauge support for various purposes for MPAs on New England

Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate.

Yellow most appropriate purpose

Red least appropriate purpose

Purpose	Very Negative	Somewhat Negative	Neutral	Somewhat Positive	Very Positive
Protect ecological structure and					••••••

function 4Y					(6)
Establish control sites for scientific research 2 Y				•• (2)	•••• (4)
Conserve Habitat				••• (3)	••• (3)
Protect Un-harvested Populations			•• (2)	• (1)	•• (2)
Fishery Management Increase biomass, protect vulnerable stocks, protect nursery areas, spawning areas, controlling mortality 3R		•••• (4)	•• (1)	•• (2)	
Protect cultural resources 1R		• (1)		••• (3)	•• (2)
Manage Multiple Activities 2R	• (1)	•• (2)	••(2)		•• (1)

## Group 4:

### Gauge support for various purposes for MPAs on New England

Ask participants to judge their level of agreement with the appropriateness of each of these purposes -- (strongly disagree, disagree, agree and strongly agree). Each dot indicates the level of agreement or disagreement with each potential purpose. In some groups, a yellow (Y) dot was used to demonstrate which purpose, if the participant could only vote for one, would be the most appropriate. A red (R) dot was used to demonstrate which purpose is the least appropriate.

Purposes	Very Negative	Somewhat Negative	Somewhat Positive	Very Positive
Protect ecology understand predator prey relationship		• (1)	•• (2)	• (1)
Establish control sites/science research	• (1)	• (1)	••• (3)	
Conserve habitat			••• (3)	•• (2)
Protect vulnerable fish stocks Juveniles vulnerable life stages		• (1)	• (1)	••• (3)
Protect cultural resources	• (1)	•• (2)	• (1)	• (1)
Control fishing pressure impact gear type, types of fishing		••• (3)	• (1)	• (1)

## Review the list of potential purposes for MPAs in New England

Would you add any others?

Control fishing pressure

Protect spawning stock areas

All of these purposes are important

Cultural resources =artifacts, shipwrecks *not* including cultural practices

Cultural resource if it is a shipwreck

Most people think existing MPAs are all these things even though they are not called MPAs

Understand predator prey relationship

Need control sites/DHRAs

Protect juveniles, spawning stock, vulnerable life stages

Greats range of opinion on protecting cultural resources

Coral is a good example of vulnerable stock that could be protected

Recreational sector would want buoys monitoring MPA so it is clear where they can't go especially wrecks

Sensitivity needs

Opposed to allocating DHRA's to research community

Someone what's to have sunset on DHRA's wants to move on to other areas in subsequent years

Wants intensive study area smaller scale than a place like all of Jeffery's ledge, smaller scale could be longer time frame.

One person doesn't view as allocation of science need monitoring in outside in order to get a before and after picture. You could learn more from a dedicated research area, it may be worth the costs b/c scientific questions answered

Should Council determine Closed Area's or should scientists propose to Council?

More likely to get support if it doesn't involve total exclusion but, only exclude activities that need to be excluded

MPAs are okay as long as there is a good reason to close an area

Once it receives historic designation, then it becomes more important be wary of making these zones too big (otherwise due to allowances for mobile gear it becomes huge) 500 feet from radar reflector would be enough

Vulnerable stock coral is good example, should be protected.

Control sites science.

-Opposed to allocation of area to science community by calling it an MPA.

+can't see any other way for science to get baseline other than through science allocation

-Stellwagen Bank experience of allocation to science of area

Popular w. charter boats

What is the time frame for science work?

When would you surrender your baseline?

Science should establish its baseline and then more on, not stay indefinitely

Beware keeping science area just to further careers of scientists.

Science and study

I want to see: intensive study in small area

Small area with smaller scale

Cooperation with fisherman

Smaller scale could be longer time frame in this instance

Science can have role for monitoring

Get good "before picture"

Get good view of what's "inside" and what's outside: closed area

(Allocation to science community) Do you set up areas for scientists and say: go study it!

Handle or specific requests for specific experiments

Would need scientific community oversight

Competing priorities with in scientific community

Do you need exclusive use or site for science study or could it coexist with other uses (absence of total exclusion)

Reality of total exclusion is also desirable (at least to science community)

## TASK #5 POLICY PROPOSALS

Purpose: Give input on what the policy should say and how it should be used.

### Discuss the main points of what the policy should say

“What are the main points, in your opinion, of what the policy should say?”

What should Policy Say?

Must address ongoing communication with stakeholders, its not enough to just set it up

Need update on a *website*

Some type of feedback on why it is worth it, more buy in / cooperation if periodically the public is updated on what is happening. What does the monitoring show?

Coordinated monitoring of MPAs essential

Must asses whether we are reaching our goals

Needs to be coordinated with complete overhaul of existing management practices and rules

MPAs could play role in doing better job protecting species

We want to protect the fish for the future, takes a lifetime to be a good fisherman

So we need to know the MPAs other value

Not everything related to the fish

If it is the right thing to do to protect coral, lets protect the coral, not cloak it in fish reasons

4 point policy –Big Four

Area should be a small a possible

If people are permanently excluded from fisheries should be compensated

Clear objectives should be agreed to before imposition of MPA

In temperate zones, areas should cover: wide range of depth, narrow geographic area and account for seasonal distributions

Should add science objective

- go in before it is closed

- scientific study linked to goal

- reasonable time frame for science study

Tie monitoring to collaboration with user groups

-should be ongoing life long learning relationship

-working closely together

-if you close areas to commercial fisherman, use commercial fishing boats to do you research, this builds collaboration, provides employment, and foster mutual learning between science and industry

-existing programs, all could be refocused for work in closed areas

- it should be mandatory to use private and commercial fishing vessels for scientific research

-the more science works with the fleet, better research will be

-cooperative research is biggest in NE and the nation

You put me out of business, you should compensate me

Implies property rights for fish

Government says permits have no value

-IRS says they are depreciable, which is correct?

-one confers right

-you take that right, you do an unjust taking, (eminent domain) should be compensated

Take a look at existing closed areas

-where has it gotten us?

-has it helped? Is it working?

Council should consider simplifying what they have

-remove what doesn't work, adjust where needed

-are they integral to fisheries management, if not how can they be adjusted?

Communication/Website

List /identify by area

What is happening with research?

What are we learning in the area?

NEFMC needs to increase effort to get the information out

Bring research scientists to fisherman groups

-make presentations direct to fisherman without filter of Council or committees

Start by getting out more information about what already and know and do in research

Please site studies that are relevant to our fisheries here in New England, in our own unique waters, *temperate studies please*

Publish in National Fisherman to talk about ecosystem approaches to management

For charter community

-salt water fisherman

-new England fisherman

Meeting board/ web technology

Better communication of what is happening would really help things

-getting academic community is very hard, even if they are funded with taxpayer money

-most don't share data without being published

Set definitions and repeat then over and over again  
It's muddy

*Notes from Group 4*

Need money for monitoring otherwise it is not worth it. MPA policy needs to be coordinated with overhaul of existing management policies

Meet goals of long term sustainability

Not everything is linked to fish. Things like coral are important to whether or not redfish spillover happens.

Need to be clear about objectives- fish management or vulnerable species protection I coral

Area should be as small as possible, people economically impacted by MPA should be compensated with money, objectives should be agreed to before implementation in temp areas should cover wide range of depth within narrow geographical area to account for seasonal distribution of fish and other species

Need clear objectives, science study linked to goal, sunset/timeframe for scientific study.

Cashes can't be proxy for the Gulf of Maine

Nedge can't be proxy for GB-show how do you determine how much is enough.

Need depth diversity-Jeffery's

The monitoring to be collaborative with user groups

Collaborative research, collaboration, buy-in, mutual learning, it should be mandatory

Cooperative research and NE consortium do collaborative research already

Research set aside could be used in MPAs

Mandatory participation should be part of monitoring all sectors-recreational and commercial

Increase in efficiency and cost savings using commercial vessels instead of university vessels, also increase relations between government and industry

Cooperative research is a priority

Must be compensated for property right taking if MPA puts someone out of business

Re-assess existing MPAs closed rolling, -habitat worked?  
Answer this question before more added

How can NMFS provide info on studies inside and outside closed areas?

Response- need web based info on closed areas

Ecosystem section of website is being developed stock assessment info will include info on CA's

Need to do public meetings on effectiveness of closed areas

Need to have regular info on NMFS/NEFSC info on assessment provided to public, more info

Need information and examples of New England specific examples

Response Mike Fogarty has article on MPAs in oceans (WHOI publication)

CFN National Fisherman should be used to update on Closed Areas

Recreational sector uses internet

Cooperative research- difficult to get info from private academic institutions-needs to be more open

Policy must set definitions to clarify misunderstanding in recreational sector about meaning of MPA, recreational sector thinks MPAs mean no-take are Amendment 13 level 1-4 definitions what should be used? Are those definitions *the* definitions? The Council has said "maybe"

### **Individual personal main points – Written Responses – All Groups**

1. What should the policy say? MPAs should be established with clearly stated goals that can be practically enforced and managed. Goals and methods should be developed through broad stakeholder involvement. Policy shall be equitable with no double standards for different stakeholders. Council shall assume that resources are available to monitor measurable targets and assess efficiency of MPA policy in achieving stated goals. Policy shall be to incorporate ability to be flexible and adaptive in response to new and emerging knowledge and information. Policy shall be revisited in x years and refined

How should Policy be used? As guidelines with ample latitude to adapt as needed

2. The policy for the establishment, management, assessment, etc. of MPAs should include all the elements of best practice (e.g. knowledge based, participatory transparent, informed of costs and benefits and adaptive ...) but the Council must apply those principles and practices to all management measures and actions (which is not done now); there should not be a double standard.

The Council needs to recognize that MPAs have many functions, most of which, are directly or indirectly related to MSA goals and objectives, and that in some cases they will be the best tool.

The Council should consider reversing the burden of proof for new activities, new fisheries or new ways of fishing, such that the activity is prohibited until shown to be acceptable, instead of allowed to develop unregulated until a problem is encountered.

3. MPAs should be an adaptively managed tool, among many tools, primarily to protect ecological structure and function and lastly as a fishery management tool but with clearly defined objective which have been vetted with primary stakeholders from the beginning of the process.

4. MPAs: Should be used as a last resort for a specific purpose and a defined amount of time. MPAs should not be used as an easy fix. People have been using the Atlantic in New England for generations. It should not be destroyed. But it should not be sanctioned off to make a "Virgin Oasis". If a gear type is destroying the sea bottom, eliminate it, not fishing.

5. Marine Protected Areas can serve as effective management tools for multiple (including the list on the board). NEFMC will work with stakeholders and related state and federal agencies to establish MPAs as control sites for research to inform fisheries management in New England. These areas could be subjected to different combinations of fishing or no fishing depending on research questions. NEFMC will continue active management with other entities involved with establishing and managing MPAs. NEFMC will continue to use MPAs as one of the tools for managing New England fisheries (e.g. closures).

6. Preamble: The New England is one of the world's most productive large marine ecosystems. It has high potential to sport high biological diversity and a multitude of uses including a robust fishing fleet. This potential arises largely from the unique productivity engine called Georges Bank and the oceanography of the region. Because these attributes are conducive to the use of MPAs and because existing MPAs have demonstrated many benefits, the Council shall: (Policy Should)

- Formally recognize MPAs as a legitimate fishery management tool.
- Adopt existing areas management measures as fishery MPAs
- Support the establishment of a network of MPA's with varying degrees of protection to address specific management opportunities or problems. This network may utilize existing area management measures as a foundation. It shall work with other agencies with MPA authority in establishing this network.

7. The MPA policy should say:

- Have a common sense directive
- Will use government science and apply to issue
- Will not be used to satisfy public sector organizational goals
- Provide a quantitative public benefit and clear purpose

- Involvement of stakeholders
- Include equitable and reasonable access to historic human use areas
- Identify classifications of MPAs
- Periodic assessment, monitoring and modification to ensure continuing ecological and socio-economical effectiveness of MPAs
- Design and implementation that consider issues of national and regional importance
- Validate that scientific data doesn't already exist if scientific data is an element (potential) of the MPA
- As one of the tools for management, not the first choice.
- Should apply to the scientific issue it was introduced for. (don't close entire water column for an issue that occurs on the sea bed)
- Should be used for a specific purpose and have a specific time frame
- To correct stock or habitat issues
- Used with scientific relevance to our specific marine environment
- To promote more sustainable fishing practices
- Used for multiple issues
- Build upon or utilize current areas that can be classified as MPAs already. Don't arbitrarily create new MPAs for the sake of using MPAs
- Any scientific goals should have a guarantee for funding.

Personal comment: Fishing in New England was a tremendously successful for about 350 years without the use of MPAs. Catch and recruitment wasn't a problem until the 1970's. Once effort is reduced (and capped) and the stock rebuilt, we will have a very healthy Maine environment.

8. What should it say: Any action taken to implement an MPA shall be tempered with common sense application that shall reflect the needs of the communities who depend upon access within or around the proposed area (s).

Any action taken to implement an MPA shall be demonstrated to be helpful in promoting economically sustainable use of the marine ecosystem.

Determination of the effectiveness shall be documented through long term funding of appropriate resources.

How used? The policy shall be used in a fashion that reflects the needs of the ecosystem (including human uses) to be sustainable in terms of economic harvest / benefit to communities that depend on the area

Policy use shall be accompanied with appropriate allocation of financial resources for long term, real time data gathering and monitoring to evaluate effectiveness of any discussion to implement an "MPA."

9. What should policy say?

NEFMC recognizes MPAs including not take reserves as valuable fishery management tools to restore and protect fish stocks, protect and conserve important habitat, provide research opportunities, and as an essential component of regional ecosystem-based management.

NEFMC recognizes that MPAs including no-take reserves are one of the many management tools available, and acknowledges that MPAs should not be held to a higher standard of application than other management tools (i.e. MPAs and no-take reserves are not a tool or “last resort” held to higher scientific or public input standards than other tools).

NEFMC recognizes MPAs including no-take marine reserves are an important tool to accomplish the NEFMC’s job under MSA and SFA to manage public resources for the public trust of all citizens.

How should it be used?

The NEFMC should apply its MPA policy to protect fish stocks and important habitat as appropriate when its authority under the law using the following:

- Clearly articulated purpose (s)
- Best scientific, economic and social information
- Transparent process for stakeholder communication and participation
- Clear monitoring and assessment plans
- Ensuring resources are available for MPA designation, monitoring and enforcement

The NEFMC should coordinate with other state and federal agencies to promote a more coordinated, ecosystem based approach to using MPAs.

The NEFMC should apply its MPA policy to promote scientific research to address impacts of fishery management actions, including establishing no-take areas to act as control sites.

10. What should the MPA Say?

It should promote economically sustainable use of the marine environment. It should provide a quantifiable public benefit. Provide for a transparent process for stakeholder input and involvement. It should provide for minimal displacement of human activities. MPAs should be designated only when other areas/tools have been determined to be inappropriate (i.e. pristine areas for baseline research already exist). Should promote access by the public. MPAs should have a CLEAR PURPOSE and be as small as possible.

How should it be used?

Used as one of the many traditional management tools – but only used when other measures to achieve the same goal have been determined to be less effective

12. What should the policy say?

The NEFMC should clearly define the ecological functions, history of human use and benefits to fishing communities of marine ecosystems within its jurisdictions. The Council’s primary role of promoting sustainable fisheries should not be superseded by MPA policies. MPAs can be established only when an appropriated monitoring and assessment is in place. There is a need to clearly document historical and current use of MPAs in the northeast region.

How should it be used?

- In a limited fashion to minimize negative impacts on communities
- Public involvement in the process
- MPA should be considered as one of the many available management tools
- Multi-use areas should be prioritized

13. What should MPA policy say?

- Must protect food resources
- Protect structure/habitat
- I do not want to see total closures
- Allow some fishing TechNet's that do not disturb the structured areas
- Not to consume large areas for unlimited times

How should it be used?

Not to put people out of business. Think very carefully about what will be created and communicate with the public

14. What should policy say?

- Need a consistent clear set of definitions
- Policy needs specific purposes and continual access to what is happening there
- Question – bring the capacity to optimal yield and why do we need these
- Need a place that is realistic “proxy” for a bigger area. I.e. Cashes is not a proxy of the gulf of Maine
- Policy needs to include the importance of communication of research results in English, of what research is going on in English

How should it be used?

Needs to be used to set conditions where research can produce answers to questions posed by the stakeholders. This is not an academic exercise with academic purposes.

15. What should it say?

Areas should only be large enough to be effective and meet goals. Objectives should be agreed upon before implementation. Funding for monitoring should be in place before implementation and monitoring should be collaborative with user groups. Goals should be separated into fishery enhancement and ecological protection and clarify definitions so everyone is clear about what is being suggested.

Council needs to clarify its jurisdiction over the establishment of MPA's. Clarification and designation of existing closed areas. Opportunity to establish a productive relationship with the science center and create a long term learning situation

Policy should be used correctly and effectively

16. How used?

Use clear goals.

Monitoring compensation for those excluded

Cooperative research

Cooperative research-review current program, remove or adjust

Definitions are confusing; need to finalize what definitions mean

17. What should policy say?

- Areas should be small as possible
- People who are permanently excluded from fishing because of creation of MPA should be compensated
- Clear objectives should be agreed to before installation of MPA
- In temperate zones areas should cover wide range of depth within narrow geographic area to account for seasonal fish movements

What should policy say?

- Define goal of the MPA with valid reasoning
- Look at area before MPA monitor during, have a specific realistic time frame
- Use commercial and recreational vessels to monitor – all vessels must participate on a RFP basis
- To stay in business we don't want to "take it all"

How should it be used?

Communication between science centers and all stakeholders. Need to identify what is going on in existing areas. Should *not* be used to reduce effort only.

18. What should policy say?

- Specific purpose or objective supported by clear scientific finding to start process
- Planning phase that includes actual costs, staffing, stakeholder impact etc.
- Policy should state achievable attainable goals and require reasonable monitoring system until goal is achieved
- Policy must address what happens once goal /objective is reached, prior to implementation
- A policy should be flexible with regard to MPA length to allow mechanism for temporary emerging MPAs

How should it be used?

MPA policy should be used to manage and protect a public resource. MPA policy should not be used to hold areas from *any* user group for future purposes

19. What should the Policy say?

- 1) The Council should clearly articulate its authority for establishing MPA areas for  
What purposes
- 2) Given the wide variety of MPAs/MMAs in effect in New England, the Council should focus its limited resources, at least initially, on developing a policy for long term gear round habitat protection areas. [This is not to say that the Council should not consider and employ other types of MPAs in New England]
- 3) Development and implementation of any long-term habitat protection area should require and be based on:
  - a. Articulation of the clear objectives of the specific MPA
  - b. Best available science and other expertise
  - c. Fair and inclusive public process
  - d. Effective and ongoing monitoring and assessment with stated process for reviewing the MPA and adjusting, if necessary, the management plan for and MPA
  - e. Management plan to achieve objectives of MPA
- 4) The Council should work in partnership with other local, state and federal (US and Canada) resource agencies and other stakeholders to establish a network of MPAs which ensures the recovery and ongoing protection of the greater Gulf of Maine ecosystem
- 5) One size does not fit all when it comes to MPAs. Therefore, each site's management must be guided by its site-specific objectives. The level of human activity should be based in stated objectives of a particular MPA and associated management requirements

19. What should policy say?

- Identify a specific problem
- Obtain science based data that is user group accountable for resolution
- Establish clearly defined goals and consider socio-economic impacts of all alternative solutions
- *If* MPA is clearly indicated as a preferred solution.
  - a. Set time limit to review progress towards goal
  - b. Be prepared to make appropriate adjustments if results are ineffective or inadequate

Establish provisions for the dissolution of MPA when goals are reached

Funding *must* be available for all paths of MPA program

Control areas can not be established and not utilized

Stakeholders should be part of process from proposal to dissolution

MPAs require and demand extreme public outreach

20. Tradition is not a reliable guide to the future. Doing something for three generations doesn't make it right. MPAs must be based on new information (science or not). MPAs are a tool of long term protection against short term pressures to consume one resource or another.

The healthy marine ecosystem is the ultimate resource, which incorporates the totality of individual species

MPAs are meant to make human behavior consistent with sustainable ecological functioning and specific volumes (not “areas”) of the marine environment

The purpose of MPAs is to emphasize long-term ecosystem production over short-term desires to consume that production. Science at base level, is skewed to the interests of the scientist. Open minded, reasonable people must be convinced

How should policy be used?

- Primarily, MPAs should facilitate long term protection of key areas of the marine ecosystem. Quotes are short term management tools. MPAs go beyond that term to strive for long-term marine ecosystem functioning
- Damaging gear should be excluded from MPAs. MPAs should allow non-consumptive research to fill in gaps in our understanding of marine ecosystems
- Every MPA will be tailored to a unique area. No one policy can cover every detail. Individual differences must be allowed so not all fit one mold.
- MPAs promote good stewardship by protection our short-term needs from destroying the resiliency of long term systems.
- MPAs emphasize ecological health over economic gratification. MPAs stress commitment to sustainability and long term environmental health. MPAs must emphasize process thinking, not rigid points of view. MPAs need to protect marine ecosystems against human threats (over fishing, pollution disease, contamination, habitat damage, etc.)

21. Development of an MPA should attempt to define specific goal up front. That goals be measurable is desirable but not necessarily a requirement. More important is that a monitoring program be incorporated in the design to tell us information about what the MPA function over time. An MPA should be developed in the context of a scientific suite of management measures.

22. The policy should be used to direct a public process for MPA development. MPA development can not be directed from? The governance process that is used in its development, process should include all effected stakeholder groups in a balanced negotiation that includes adequate opportunity for notification by stakeholder communities. An investment in informing the stakeholder communities with relevant information is needed upfront. Adequate time for negotiation, development and notification should be scheduled up front.

Notes - Closing Remarks/Overall feelings

Councils need to work with other agencies

Urge the Council base on knowledge, science ecosystem structure and function, but recognize that there are different levels of understanding, peoples levels of understanding, and to recognize that in accessing the pros and cons that we have different levels of understanding, but the idea that the MPA will seed areas based on models and theory, and on the other side is the displacement of effort, this is not based on data but it is an assumption, so be conscious of this.

Be a bit more strategic in we should empower the fishery scientist and have experimental areas in the ocean to have research design on how you are fishing and how you are getting things don relative to

Communicating with everyone in the area what is being done; why the area needs to be protected, communication has not been quite right, instead of going to fishery managers, involve the people.

Emphasize the needs of long term ecological systems, as opposed to short term. Be uniquely clear of our motivation, another thing it the term the resource.....the resource is the ecosystem is the resource that provides all those species out there. MPAs should be for all species, for all areas adopt long term goals over immediate short term goals. Long-term ecosystem production should be the focus. MPAs are an example of good stewardship. We need to regulate ourselves.



New England Fishery Management Council

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