

ZONING WORKING GROUP (ZWG)
Stellwagen Bank National Marine Sanctuary (SBNMS)
Boston, MA
9:30 am to 5:00 pm
13 January 2010
MEETING SUMMARY

ACTION ITEMS

ACTION: A regulatory subgroup will meet to develop a comprehensive review of cumulative impacts.

ACTION: A science subgroup will meet to review cumulative impacts and assess benefits and gaps.

AGREEMENT: **ZWG developed a working statement on the adequacy of existing zones and regulations. The statement will be revisited at the next meeting after a cumulative impacts assessment is done.**

Working Group Attendees:

Members Present:

John Williamson	Chair - The Ocean Conservancy
Ben Cowie-Haskell	Staff Lead - SBNMS
Jennifer Anderson	Government- NOAA Fisheries
Peter Auster	Academic - University of Connecticut
Ed Barrett	Mobile Gear - MA Fishermen's Partnership
Priscilla Brooks	Conservation - Conservation Law Foundation
David Casoni	Fixed Gear - Mass Lobstermen's Association
Deborah Cramer	At Large - Science Writer
Lew Incze	Academic - University of Southern Maine
Les Kaufman	Academic - Boston University
Patrick Paquette	Recreational Fishing
Allison Rosner	Government - NOAA Fisheries
Mary Beth Nickell-Tooley	Pelagic Commercial Fishing
John Weber	Coastal Zone Management
Mason Weinrich	Conservation - Whale Center of New England

Members Absent:

Tom DePersia	Recreational Fishing-Charter - Stellwagen Bank Charterboat Association
Dave Pierce	Government - MA Division of Marine Fisheries
Gib Brogan	Conservation - Oceana

Others Present: Mike Thompson, SBNMS

Welcome and Review of Agenda

John Williamson, ZWG Chair, opened the meeting and welcomed everyone. The meeting agenda was reviewed and accepted.

Charge of the Day. Review the Zone Evaluation Matrix (Appendix A) that staff prepared then conduct a cumulative impacts analysis to evaluate whether all the existing zones together adequately protect ecological integrity. Goal for the day is to reach a consensus recommendation on the adequacy of the existing zones for protecting ecological integrity for consideration by the SAC. Again, this is a consensus based process. Everyone needs to contribute viewpoints and understanding to this. We will attempt to arrive at a consensus recommendation for the SAC; however, if a consensus recommendation is not possible, any dissenting view will require a minority report, which will also be conveyed to the SAC. The SAC will ultimately be the arbitrator of the consensus. Final recommendation will be made by the SAC to the Sanctuary Superintendent.

Review and Approval of past meeting summaries (24 August 2006 and 30 September 2009).

1. 24 August 2006 Meeting Summary. No changes.
2. 30 September 2009 Meeting Summary Revisions and Changes to:

Jennifer Anderson wants more detailed wording added to the report. She will confer with Allison to add more wording. They have problems with the Matrix. Lew Incze agreed that more details need to be given to the Meeting Summary that tie into Matrix.

Page 3, Criterion #2: Strike the question mark, following “No Change”.

John addressed the criteria that were drafted to evaluate each of the nine zones in the Zone Evaluation Matrix (Appendix A). At the Sept. 09 meeting, these criteria were modified. Criteria were reworked and were applied to each of the nine zones as ways to analyze the efficacy of each of these zones. He then discussed how these criteria will be tied into the cumulative analysis along with how the regulations overlay into these zones.

Also during this meeting, need Ed Barrett’s assistance on how unfished and fished areas in the sanctuary contribute to the analysis.

Discussion of ZWG Charge

Discussion ensued about working group’s charge and the need to stay focused on the charge in the EBSM Action Plan which is to (1) evaluate the adequacy of existing zoning schemes in the SBNMS, (2) address the scientific requirements to meet the goals of EBSM and, if needed, (3) develop a modified zoning scheme including consideration of fully protected reserves. The goals of EBSM are to “protect the ecological integrity of the SBNMS including that the sanctuary contributes to the healthy functioning of the larger GoM ecosystem. Effective implementation should: consider ecological processes that operate both inside and outside sanctuary boundaries; recognize the importance of genetic, species, and habitat diversity; and accommodate human uses with the sanctuary to the extent compatible with the primary goal of resource protection. EBSM will integrate knowledge of ecological interrelationships with societal values to minimize human impacts to sanctuary resources” [from the SAC EBSM WG report and Sanctuary DMP].

Discussion of Zone Evaluation Matrix

Concerns were raised about the Zone Evaluation Matrix. Some members felt the definitions were contradictory and criteria too subjective. The evaluation needs to be more objective and based on science.

There was confusion arising over the difference between the whether the zone was adequate for its intended purpose and is it adequate for protecting ecological integrity in the SBNMS.

Discussion ensued over whether the last criterion in the matrix was necessary because some members felt our purpose was not to evaluate the reasons the zones were put in place but rather their adequacy in protecting ecological integrity.

Consensus was reached to drop the last criterion in matrix.

More discussion ensued on how to go about evaluating the zones singularly and cumulatively. One suggestion was to evaluate the elements of ecological integrity that are not encompassed by zoning or regulations.

A straw poll was conducted by John to see where each member stood on the following questions: Do you think that ecological integrity (EI) is adequately protected currently in the sanctuary? If not, where do you think we should be concentrating or focusing on how to deal with shortcomings?

Mason: No, ecological processes need greater protection.

Priscilla: No, based on the report in the DMP . Need to protect representative habitats (the Sliver does not protect mud) and forage species need better protection.

David Casoni: Yes. We all have different levels of expectations of EI. I would say EI is protected, and everyone else would say no. We know where the extremes are, and maybe shoot for the middle level of protection.

Jennifer: I struggle because matrix is too subjective and not based on science. I can't really answer the question without more scientific rigor.

Allison: agrees with Jen. What are we protecting? Federal statutes are in place and out there to provide various types of protection. We should go through these to see what type of protection is already out there.

Peter: No. Protection and conservation are different. Despite the protections afforded by the Sliver there are still human activities going on inside it. Layer on top of that the need to decide within the sanctuary what we need to do to address activities that go on outside the sanctuary. Doesn't believe that what is being done now is adequate. Need to further look at what's going on in the Sliver. It's the place that has the highest level of protection. Need to focus there as a starting point.

Les: No. Five things that require attention: (1) processes need protection (predator/prey interactions); (2) forage base (need enough herring at the right time); (3) old stuff (i.e., big fish that provide ecological resilience, mature bottoms (late successional stage habitats); requires absolute no take areas and slot limits; (4) critical to sustain fishermen's and other livelihoods and fishing communities but it must be done sustainably- fishermen are ecologically a part of the sanctuary and there needs to be a way to sustain them; and (5) fulfillment of non-extractive values that people have enough information and education to act responsibly.

Ed Barrett: Yes. We need to go back to the designation document and the reason that the sanctuary came about. It came about as a compromise. It was never meant to be no-take zones, it wouldn't exist right now because the user groups would not agree. Should get some protection, there will be some activities that we cannot change (i.e., LNG terminal; the MWRA outfall). We've been working on the DMP for 10 years and in the meanwhile fisheries mgmt. has gone through incredible changes and it will change again -- it's a moving target. Don't think we can adequately analyze. My constituents would say we are not ready to accept any new restrictions. I think it is adequately protected.

John Weber: No opinion to offer. Wrestled with 17,000 different management scenarios in the Mass. Ocean Plan. For a given management approach, do we have the science background? That's my only observation.

Patrick: Doesn't know. As a member of the ZWG does not have the answer yet. Can go back and forth on this. Fishing wants their area and science wants their area. Everyone wants their territory. Need to go at by identifying where the problems are.

Lew: No. Ultimately we will need to make a judgment based on knowledge? We have a lot of knowledge to guide us and come up with a judgment on whether more proactive action needs to be taken. Human use should not be excluded out of the equation. Don't think we know what the system could do. Is the sanctuary doing its part to contribute to the GoM ecosystem? Matrix: there a lot of regulations in place. Do these regulations offer enough protection for the sanctuary? Can't avoid answering those questions. Need to evaluate the matrix and evaluate what needs to be done.

Mary Beth: Yes. From a fishing perspective - federal mandates in place are effective. Need to wonder about productivity in the sanctuary and human activity. Age stocks have value. Need broader protection in regard to forage base and herring. Broaden beyond the zones in the matrix, cumulative impacts is a much bigger discussion.

Deb Cramer: No. Need to think about the National Marine Sanctuaries Act. Never really discussed how much we want to restore. Think about restoration along the whole range of things discussed. There are plenty of protections for right whales, is forage base adequately protected, is benthic community adequately protected. Productivity of the sanctuary is really important and central over the next 5, 10, 15 years. Does not feel that the big old fat fish (BOFF) are adequately protected and need to protect production that the BOFF needs to survive. Need to acknowledge that human activities outside the sanctuary also needs to be addressed.

Ben: No. The sanctuary is not adequately protected and this is documented in the draft mgmt. plan. Sliver is a starting point and we should focus on that. Shortcomings for example, deep mud habitat below 85 meters only disturbed by fishing activity and under represented by the Sliver. Sliver is lacking full protection of fish through trolling and recreational fishing. Is there a place in the sanctuary that is truly undisturbed where we can look at the system and say this is a area that is undisturbed and can be compared to other areas of the sanctuary that have activity? Answer is no. We need a reference area within the sanctuary and large enough to address issues in criteria and protect all habitats in sanctuary and sufficient regulations behind it to provide comprehensive protection including a buffer. Do we have an area that is a true reference area? No, therefore I conclude that we do not have adequate protection. We are getting there with the Sliver but not quite there yet (lack of mud habitat, impacts from recreational fishing).

John Williamson: Summarize: Small group says that sacntuary is adequately protected and larger group says no that we need to go beyond status quo. Human uses are part of ecological integrity of the sanctuary and this is consistent with what we drew up with goals in mission statement.

Fisheries Management

The question was raised, "can we proceed without affecting fisheries management?" Some working group members said no, while responding that we have to succeed. Some activities can be addressed without affecting fisheries management such as development of LNGs which are entraining and killing fish larvae and generating huge amounts of warm water. Need to make a recommendation to the sanctuary that we need more science to go forward. How do you discuss zoning with affecting fisheries management? There are large gaps in data and therefore a great opportunity to collaborate to fill those gaps.

No Take Area Discussion

Some members feel strongly that a no-take area is necessary; others feel the opposite. Some members point out that there are plenty of issues that need to be addressed other than creating a no-take area such as LNG development, cruise ship pollution, other non-fishing impacts. However, group was reminded that the charge is to evaluate zoning and consider additional zoning.

- Should the Sliver be altered to address some of the gaps in protection?
- In a no-take area why is it necessary to ban trolling for pelagic species like bluefin tuna?
- There is no point to catch and release fishing for groundfish because it isn't a trophy fishery.

More Discussion on Revising the Matrix

Considerable discuss ensued on problems with the Zone Evaluation Matrix and how to revise it. After extensive discussion some members suggested that reaching consensus on the matrix was not going to be possible. Therefore, the three factions in the group (enough protection, not enough protection, and don't know) should develop separate recommendations for the SAC to consider. Other members did not want to give up and that consensus was reachable but that the matrix was broken.

Moved to open discussion over lunch on how to move forward.

A suggestion was made that the only way to move forward is to define where the bar lies, in other words, develop a recommendation for the SAC that specifies alternatives with different levels of protection. For example the two extremes would be to do nothing or don't allow anything but somewhere in the middle gives the SAC and public an idea of what the sanctuary could be.

- Who sets the bar: ZWG, SAC, SBNMS?
- Should ZWG punt this problem to the SAC? They are no better prepared than ZWG to address this issue.

Cumulative Impacts

There are many actions that are not captured in the matrix such as striped bass prohibition in federal waters. The cumulative impacts analysis must consider the full suite of actions that are impacting the sanctuary and must be done with as much scientific rigor as possible.

After lengthy discussion the following working statement was agreed to by the group:

Existing zones and regulations were designed to address specific issues and to the extent that they are successful they contribute to the protection of ecological integrity; however, no single existing zone or regulation currently protects the ecological integrity (as defined in the sanctuary management plan pg. 209) of the SBNMS. Neither does the cumulative effect of these zones and regulations ensure the protection of ecological integrity. We recognize that ecological integrity is compromised by multiple stressors, and the protection of EI depends on factors inside and outside the SBNMS.

As the next step, the group will have a more robust discussion of cumulative effects shall be done to identify gaps and to make recommendations on how to address the gaps.

It was agreed that John would present this to the SAC as a working draft statement by the ZWG contingent on a full assessment of cumulative impacts at the next meeting. As the next step, we anticipate a more robust discussion of cumulative effects to identify gaps and to make recommendations on how to address the gaps.

A regulatory sub-group of the ZWG (Jen, Allison, and Ben) will do a more thorough compilation of existing regulations and statutes that apply to the SBNMS identifying both regulatory purposes and the predicted direct and indirect effects from the associated EIS' on different aspects of the physical and biological environments.

A science sub-group (Peter, Lew, Les, Mason and David Pierce), will:

1. Conduct an analysis adequate to identify the likely benefits of direct and indirect effects;
2. Identify, as a strawman, what additional protections are needed to fully protect environmental integrity (what would EI look like for SBNMS);, and

3. Identify the gaps with the existing set of statutes and regulations that would be required to implement the required level of protection.

Summary

A lot of progress was made. The ZWG made brave attempt at making cumulative analysis, and decided it would not reach a full consensus so we stepped back to take another look at how to get the job done. We decided that a more comprehensive cumulative impacts analysis needed to be prepared. At the next meeting, the two subgroups will have met and will bring back a straw man of indirect and direct effects, as well as benefits derived from the actions and gaps in protection and some guidance as to how the full ZWG should proceed with the analysis so that we can give a thorough briefing to the SAC in June.

Next meeting will be on April 16.

Adjourned at 4:20.

Appendix A. Zone Evaluation Matrix.

Zone Name	Zone Purpose	Does it contain a sufficient area of each of the four main habitat types (mud, sand, gravel, Boulder) such that each can support a viable ecological community and be monitored adequately? Consider each habitat type separately, with the means of monitoring and management. Resilient means it has a strong tendency to maintain its structure and function, including returning to a prior state after a strong perturbation and adaptable refers to the capacity to adjust to a change such as ocean warming.	Is it sufficiently protected from human disturbance for the intact biological communities to be considered as a natural or unimpacted state? Invertebrates are present and occur in abundance and patterns of distribution and interact in ways found in undisturbed environments.	Is it of sufficient size to adequately restore and protect biological communities within the zone?	Conservation Criteria Does the zone, and the restrictions that accompany it, provide functional resilience to the rest of the sanctuary meaning does it enhance the ecosystem's ability to recover from human or natural perturbations? Functions refer to ecosystem services such as recycling of nutrients, primary production, prey, reproduction, etc.	Is it of sufficient size to provide spillover of fish and invertebrate biomass to neighboring areas? Spillovers are extra-zonal are attributable to the zone. This may be due to local production and dispersal, (propagules) or attraction of mobile/migrating species	Is it of sufficient size to provide a buffer for biological communities inside the zone from surrounding human activities?	For its designed purposes, is it adequate?
1. Right whale critical habitat	Critical habitat is a designation under the Endangered Species Act for habitat that is critical to the survival of right whales. The designation does not confer any immediate protections and is not focused on benthic habitat. A critical habitat designation directly affects only those actions authorized, funded, or carried out by Federal agencies. Designation of critical habitat enables NMFS to undertake special management measures if necessary.	No, this zone does not directly protect benthic habitats. It is intended to protect RW foraging habitat which consists of the plankton in the water column.	No, this zone does not confer any immediate protections on habitats.	No, the zone offers no protection to benthic and fish communities.	No, the zone confers no immediate protection to habitats and therefore provides no functional resilience.	No, the zone offers no protection to invertebrate and fish communities.	No, this zone does not confer any immediate protections on habitats.	Probably not because transport of water column particles (e.g. plankton) is N to S
2. Cape Cod Bay Restricted Area	Restricted areas were designated under the Atlantic Large Whale Take Reduction Plan and are intended to reduce interactions between whales and fishing gear, principally gillnets and lobster traps. Fixed gears are subject to certain restrictions depending on the size of gear, the water column habitats. Minor indirect benefits to water column habitats result from fewer vertical lines. The requirement for sinking groundlines and multiple traps on each trawl may increase disturbance of benthic habitats.	Yes (?)	No, the zone confers no direct protection to benthic or water column habitats.	No, the zone confers no direct protection to benthic or water column habitats.	No, the zone confers no direct protection to benthic or water column habitats and therefore does not enhance functional resilience.	Not applicable	Not applicable	Yes
3. Stellwagen/Jeffreys Ledge Restricted Area- SBNMS area	same as above	Yes (?)	No, the zone confers no direct protection to benthic or water column habitats.	No, the zone confers no direct protection to benthic or water column habitats.	No, the zone confers no direct protection to benthic or water column habitats and therefore does not enhance functional resilience.	Not applicable	Not applicable	Yes
4. Herring Area 1A	Area 1A overlaps the entire sanctuary and is intended to limit the catch of herring. It confers no direct protections for water column or benthic habitats.	Yes (?)	No, the zone offers no protection to water column or benthic habitats.	No, it provides no protection to benthic habitats but it provides some protection to forage species	It may provide some resilience to the sanctuary ecosystem in terms of foraging available as forage for marine mammals and fish.	Not applicable	Not applicable	Yes

		Conservation Criteria			For its designed purpose, is it adequate?
of	Is it sufficiently protected from human disturbance for the intact biological communities to be considered natural or unperturbed state? Intact means species are present and occur in abundances and patterns of distribution and interact in ways found in undisturbed environments.	Is it of sufficient size to adequately restore and protect biological communities within the zone?	Does the zone, and the restrictions that accompany it, provide functional resilience to the rest of the sanctuary meaning does it enhance the ecosystem's ability to recover from human or natural perturbations? Functions refers to ecosystem services such as recycling of nutrients, primary production, prey, reproduction, etc.	Is it of sufficient size to provide spillover of fish and invertebrate biomass to neighboring areas? Spillovers are extra-zonal increases in biomass attributable to the zone. This may be due to local production and dispersal, local reproduction (propagules), or attraction of mobile/migrating species	Is it of sufficient size to provide a buffer for biological communities inside the zone from surrounding human activities?
port	No, a four week closure that effects only mid-water fishing for herring is insufficient to protect benthic habitats.	No, but some benefits to spawning herring, feeding whales	Not but the zone provides some resilience to certain components of the system, eg. herring, demersal fish	Yes (?-is a four week closure sufficient to provide spillover of biomass)	Yes
	No, the gear exemption is too short in duration and too small in area to provide any long-term benefits.	No, the gear exemption is too short in duration and too small in area to provide any long-term benefits.	No, the gear exemption is too short in duration and too small in area to provide any long-term benefits.	No, the gear exemption is too short in duration and too small in area to provide any long-term benefits.	Yes
on to	No, biological communities are impacted by trawls with roller gear under 12" diameter.	No, but it relieved some pressure on complex habitat (boulder reefs) and it increased pressure on other habitats (eg. mud)	No, the structure and function of the ecosystem are still impacted by trawl gear	No, fish and invertebrates are still impacted by trawl and dredge gear.	Yes
he	No, the rolling closures do not provide long-term protection but some protection is afforded to spawning fish	No, the rolling closures do not provide long-term protection but some protection is afforded to spawning fish	No, but resilience is slightly enhanced during the closure.	No, the zones are not in effect long enough to produce invertebrate or fish biomass.	Yes.
mud	No, it is not sufficiently protected from fishing for the biological communities within the silver to be considered intact and representative of an unperturbed state.	Yes with qualifications: large, old fish, lobsters, herring, haddock, tuna, etc. are still being caught.	Yes, it provides some resilience however, sand and mud are not sufficiently protected	Yes, there are indications based on fishing effort along the edge of the silver that there is spillover of fish biomass.	Yes it protects a portion of EFH in the GOM



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AGENDA
ZONING WORKING GROUP MEETING

Coast Guard Building
408 Atlantic Avenue
Boston, MA
Jan. 13, 2010
9:00 A.M. – 5:00 P.M.

- 9:00 Welcome and Review of Agenda** (John Williamson)
- 9:15 Working Group Members – Introductions** (All)
- 9:30 Ground Rules and Charge for the Day** (Williamson)
- 9:45 Review and approval of past meeting summaries** (Williamson)
- 10:00 Review of zone evaluation matrix** (Williamson)
- 11:00 Cumulative benefits of existing zones** (General discussion)
- 12:00 Lunch** (*provided*)
- 1:00 Consensus on adequacy of existing zones** (General discussion)
- 2:30 Outline recommendation report to SAC**
- 4:30 Wrap up and Next Steps** (Williamson)
- 5:00 Adjourn**

DIRECTIONS

The Coast Guard building is at 408 Atlantic Ave. If you drive, parking is available near the Joseph Moakley Federal Courthouse across the Fort Point Channel from the CG building on Northern Ave.
South Station, the closest Metro stop (red line), is 5 blocks south of the CG building.

