

John Williamson presented the ZWG update and provided the following summary for the 30th SAC Minutes:

A quick summary of the Zoning Working Group for new SAC members.

The ZWG was convened by the SAC in 2005, with a very specific membership of represented interests, in response to the Ecosystem-Based Sanctuary Management Working Group recommendations for protecting Ecological Integrity (EI) in the Sanctuary. The EBSM Objective 4 which pertains to the ZWG can be found on page 211 of the Draft Management Plan:

**EBSM.4 Objective—Protect Ecological Integrity**

**Background.** The primary goal of EBSM is to protect the ecological integrity of the sanctuary. No single action is sufficient to protect the integrity of the system short of making the entire sanctuary a no-take wilderness area, which is not the intention. The purpose of this objective is to implement a set of complementary strategies that together will ensure the integrity of the ecosystem.

**Strategy (1) To Protect Ecological Integrity (4.1) Continue to convene the zoning working group of the advisory council established in 2005 to: (1) evaluate the adequacy of existing zoning schemes in 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 zoning working group will review and evaluate data and information, as it becomes available through various venues (e.g., Omnibus Essential Fish Habitat process, sanctuary efforts) and will make recommendations to the advisory council. The advisory council will evaluate the recommendations and advise the sanctuary superintendent regarding the adequacy of existing zoning measures. The working group will be asked to make its recommendations within two years of the publication date of the Federal Register Notice notifying the public of the availability of the final management plan. [See Strategy EA 2.1] Appendix Q provides details on the membership and charge of the zoning marking group. Appendix R provides information on existing marine resources management zones that overlap the sanctuary.

*Priority:* High  
*Status:* Ongoing

Therefore, the tasks the ZWG has been asked to address are:

1. Evaluate adequacy of existing zoning in the Sanctuary
2. Address scientific requirements to meet the goals of EBSM
3. Develop a modified zoning scheme including consideration of fully protected reserves.

The work of the EBSM and the ZWG are central to the Sanctuary Program's mission. The National Marine Sanctuary Act places high importance on preservation and restoration of EI in National Marine Sanctuaries. The SAC agreed on a vision statement which appears on pg. 182 of DMP that states that ecological integrity is protected and

fully restored. Furthermore, NOAA made a definitive statement in the DMP that a higher standard of conservation should apply to the SBNMS than may apply broadly throughout the Gulf of Maine.

The first ZWG was held in May 2005. It has done a lot of work over the period with members wrestling with difficult, fundamental issues. There was a hiatus of 2 years while staff was consumed with DMP. It was reconvened about a year ago. In its first year the ZWG reached agreement on a working definition of EI which appears on page 209 of the DMP.

**Ecological Integrity Definition** (adopted July 2006)

*“Ecological integrity is defined as the degree to which the system is structurally intact and functionally resilient within the context of historical baselines. Structurally intact means the native parts of the system are maintained as well as their relationships. Functional resilience is the system’s ability to resist changes caused by human or environmental perturbations, or should change occur, to recover over time.”*

At the January 2010 SAC meeting I reported that the ZWG had been looking at existing fishing regulations affecting the Sanctuary and existing zones, and were analyzing their contribution to EI in the Sanctuary. However, I also reported that we were close to an impasse on agreeing whether and how to proceed to a next step – which was to make recommendations for additional measures to protect EI. The ZWG had agreed to the following statement as a working hypothesis:

**Working Hypothesis** (from January 13, 2010 ZWG)

*“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 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.”*

Here, I must state for the record, that NMFS has subsequently withdrawn from this consensus statement, pending further review of the cumulative impacts analysis. More on that later. In advance of our April 16 meeting, the ZWG convened two sub-groups.

First sub-group was of SBNMS and NMFS staff to provide a synthesis of existing fishery management actions, sanctuary regulations, and other actions relevant to the Sanctuary. They compiled an extensive inventory of the predicted effects and benefits of these actions. The intent was that the ZWG scientists would review these materials and report on their adequacy in protecting EI. This is what has not yet been done that NMFS would like to see done.

Second. A science sub-group was convened that carried out extensive discussion by email, phone and in-person. With limited time they agreed not to conduct detailed analysis of the cumulative benefits of existing “zones” (but to visit that a later date). They chose instead to focus on what EI might look like in the Sanctuary and what measures might be developed to augment existing regulations, to achieve greater EI. They put several strategies on the table

for the ZWG consideration, which Les will report on in detail. These are best summarized by three objectives and a range of five alternatives.

**ZWG Science sub-group proposed objectives for additional measures to protect EI:**

1. Protect the full range (or representative examples) of community types, currently based on what is known between species, composition, and particular habitat types based on grain size.
2. Protect and enhance size class composition for all species.
3. Protect key ecological patterns indicative of community and ecosystem processes.

**ZWG Science sub-group proposed list of alternative ways to meet those objectives:**

1. Full protection of SBNMS. (No extractive uses and managed access for tourism, observational research, etc.)
2. Sanctuary-wide actions to reduce human disturbance but allow multiple uses.
3. Modified border of the WGOM Closed Area “sliver” to ensure adequate habitat (community) representation and minimize human disturbance.
4. Minimize human disturbance in the WGOM Closed Area "sliver".
5. Status quo (management at regional scale).

The ZWG had a difficult afternoon discussion examining the science sub-group’s approach. The ZWG did reach consensus on two things:

First, that Alternative 1, calling for full protection of the Sanctuary, is unrealistic. It is inconsistent with the sanctuary’s mandate to facilitate uses compatible with the primary objective of resource protection. The consensus recommendation is that this alternative should not be further developed.

Second, the ZWG reached consensus that Alternative 5, the protections afforded by the status quo, which are the existing mix of fishery and other regulations overlapping the Sanctuary as well as sanctuary regulations – that these protections should not be diminished.

The ZWG was not able to reach any consensus on Alternatives 2, 3 and 4. One or a combination of these approaches would require development of new, Sanctuary-specific regulations.

The fishing industry interests in attendance clearly felt that further regulations are not called for or desirable. They made the point, repeatedly, that current restrictions on fishing effort, which have gone into place fairly recently, are enough to ensure EI in the future.

The scientists, in general, did not agree with this. They argued that there were some gaping holes in EBSM and that there are fairly simple measures that could be taken to achieve those ends. As an example, they raised the possibility of a “slot limit”, a maximum size for some species of groundfish to go along with the existing minimum size, to enhance age class structure.

Some people felt that, at a minimum, an area of the Sanctuary should be set aside as a research “reserve” – an area with no fishing or other activities – to allow comparative studies of human impacts and ecosystem recovery in controlled scientific research.

The day ended with no hint of agreement in sight. The science sub-group requests that, for them to continue, the SAC must provide guidance on the extent of additional protection for EI to target.