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## ECOSYSTEM-BASED MANAGEMENT STRATEGIC ACTION PLAN COMMENT

April 29, 2011

### FIVE KEY ACTIONS FOR THE EBM ACTION PLAN

The Environmental Law Institute (ELI)<sup>1</sup> submits this comment to highlight key opportunities for meeting federal agencies' statutory and regulatory obligations during federal permitting and decision-making, by building on the national ocean policy, stewardship principles, ecosystem-based management priority objective, and accompanying information established in response to Executive Order 13547, "Stewardship of the Ocean, Our Coasts, and the Great Lakes."<sup>2</sup>

**Specifically, ELI recommends an Ecosystem-Based Management Strategic Action Plan (EBM SAP) that links ecosystem-based management (EBM) approaches<sup>3</sup> with environmental impact assessments conducted under the National Environmental Policy Act (NEPA) and other laws and policies that call for environmental analysis and decision-making.**

**Table 1. Summary of Actions to include in the Ecosystem-Based Management SAP**

**Action 1.** Adopt the ocean EBM definition advanced by the Scientific Consensus Statement on Marine Ecosystem-Based Management.

**Action 2.** Develop methods and agency guidance to enable the integration of EBM approaches with NEPA analysis.

**Action 3.** Encourage regional ocean governance bodies (and *require* regional planning bodies under the coastal and marine spatial planning framework) to establish plans that contain concrete goals and measurable objectives that can be used to inform project-level NEPA analysis.

**Action 4.** Establish methods and guidance to enable adaptive management.

**Action 5.** Ensure that the EBM SAP is appropriately integrated with other SAPs developed pursuant to the Interagency Ocean Policy Task Force's recommendations and National Ocean Council mandate.

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<sup>1</sup> ELI's comment is based on several years of research focused on law and policy mechanisms to implement ecosystem-based management for the oceans, including coastal and marine spatial planning. For more information, see ENVIRONMENTAL LAW INSTITUTE (ELI) AND CENTER FOR OCEAN SOLUTIONS, COASTAL AND MARINE SPATIAL PLANNING: LEGAL CONSIDERATIONS (2010); ELI, MARINE SPATIAL PLANNING IN U.S. WATERS: AN ASSESSMENT AND ANALYSIS OF EXISTING LEGAL MECHANISMS, ANTICIPATED BARRIERS, AND FUTURE OPPORTUNITIES (2009) (included here as an appendix); ELI, OCEAN AND COASTAL ECOSYSTEM-BASED MANAGEMENT: IMPLEMENTATION HANDBOOK (2009); ELI, EXPANDING THE USE OF ECOSYSTEM-BASED MANAGEMENT IN THE COASTAL ZONE MANAGEMENT ACT (2009). Additional information and reports are available at [http://www.eli.org/Program\\_Areas/ocean\\_projects.cfm](http://www.eli.org/Program_Areas/ocean_projects.cfm).

<sup>2</sup> Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* (July 19, 2010).

<sup>3</sup> EBM approaches include state and regional ocean governance programs as well as coastal and marine spatial planning (CMSP). For further recommendations on CMSP, see ELI's CMSP SAP comment.

According to Executive Order 13547 (Ocean Policy EO), it is now the national policy to “protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources.”<sup>4</sup> To achieve this national ocean policy, President Obama has established a new National Ocean Council (NOC) and mandated all federal agencies to:

- implement the national ocean policy, the stewardship principles, and the national priority objectives;
- participate in the coastal and marine spatial planning (CMSP) process; and
- comply with certified coastal and marine spatial plans

“... to the fullest extent consistent with applicable law.”<sup>5</sup> This includes following the detailed final recommendations developed by the precursor Interagency Ocean Policy Task Force (Task Force), which the Ocean Policy EO incorporates by reference.<sup>6</sup>

The NOC is developing nine Strategic Action Plans (SAPs) to support implementation of the nine national priority objectives identified in the Ocean Policy EO. Each SAP should “identify specific and measurable near-term, mid-term, and long-term actions, with appropriate milestones, performance measures, and outcomes to meet each [national priority] objective.”<sup>7</sup>

**This comment focuses on SAP development for the Ecosystem-Based Management national priority objective.** To achieve this national priority objective, the Task Force recommends development of an SAP that: “[a]dopt[s] ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.”<sup>8</sup> Among other required elements, the Task Force calls for this EBM SAP to address:

- “‘Best Practices’ for developing and implementing EBM systems;
- Identification and prioritization of geographic areas of special sensitivity or in greatest need for ecosystem-based management;
- Establishment of a process for working with States, tribal and local authorities and regional governance structures to apply the most successful approaches in these areas of the greatest need; and
- Measures to ensure that decisions about ocean, coastal, and Great Lakes activities, uses, and goals are made based on the best available science and incorporate principles of ecosystem-based management.”<sup>9</sup>

Ecosystem-based management has been advanced as an important tool for minimizing the cumulative impacts of ocean and coastal uses and activities over time, across the ecosystem, and within and across management sectors. Unlike traditional management approaches that consider the ocean activities on a sector-by-sector or issue-by-issue basis, EBM recognizes that activities and ecosystems are interconnected: the management of one sector, resource, or issue can affect management of another. At its core, EBM considers the **cumulative impacts** of human uses and takes a place-based, holistic, and proactive approach to manage human uses and activities.<sup>10</sup>

<sup>4</sup> Executive Order 13547, *Stewardship of the Ocean, Our Coasts, and the Great Lakes* (July 19, 2010) § 2.

<sup>5</sup> *Id.* § 6.

<sup>6</sup> *Id.* § 1.

<sup>7</sup> *Id.* at 7.

<sup>8</sup> Interagency Ocean Policy Task Force, *Final Recommendations of the Interagency Ocean Policy Task Force* at 32 (July 19, 2010).

<sup>9</sup> *Id.* at 32.

<sup>10</sup> In this context, “cumulative impacts” refers to the net effect of all human activities – a broader definition than the typical legal definition, which considers cumulative impacts that are alone insignificant but together result in a significant impact.

**This comment provides recommendations to the NOC for preparing an ecosystem-based management SAP that ensures that ocean and coastal decision-making will be based on the best available science, minimizes cumulative impacts, and preserves important ecosystem services.**

**EBM SAP ACTION 1. Adopt the ocean EBM definition advanced by the Scientific Consensus Statement on Marine Ecosystem-Based Management.**

Created by consensus of more than 200 experts, this definition appropriately highlights the importance of marine EBM as a tool for managing human impacts, protecting ocean and coastal ecosystems, economies, and communities, and maintaining critical ecosystem services.

The Task Force's Final Recommendations state that the NOC will adopt a definition for ecosystem-based management as it develops the EBM SAP.<sup>11</sup> **We strongly recommend that the NOC adopt the definition for EBM advanced by the *Scientific Consensus Statement on Marine Ecosystem-Based Management*.**<sup>12</sup> This definition reflects the consensus of over 200 U.S. scientists and policy experts on the meaning of marine ecosystem-based management, and appropriately highlights the importance of marine EBM as a tool for managing human impacts, protecting ocean and coastal ecosystems, economies, and communities, and maintaining critical ecosystem services.

**EBM SAP ACTION 2. Develop methods and agency guidance to enable the integration of EBM approaches with NEPA analysis.**

This action will help to increase understanding of ecosystem processes and human use impacts, better predict potential cumulative impacts, and support and inform management and decision-making at the project and regional levels.

In developing the EBM SAP, the NOC has an opportunity to develop a comprehensive management approach that builds from and integrates with the current system of laws and policies, rather than create a new layer of government bureaucracy. A critical component of EBM is identifying the many human impacts on oceans and coasts, understanding their effects on the environment, and managing these impacts so that key ecosystem services are preserved. In order to best address cumulative impacts and develop an effective EBM framework, **the NOC should appropriately integrate EBM approaches with various decision-making and implementation activities, to ensure that decisions about ocean and**

<sup>11</sup> Interagency Ocean Policy Task Force, *Final Recommendations of the Interagency Ocean Policy Task Force*, C-III (July 19, 2010).

<sup>12</sup> This definition states: "Ecosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from current approaches that usually focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors." Communication Partnership for Science and the Sea (COMPASS), *Scientific Consensus Statement on Marine Ecosystem-Based Management* (March 21, 2005). The Scientific Consensus Statement may be found at the following link: [http://www.compassonline.org/science/EBM\\_CMSP/EBMconsensus](http://www.compassonline.org/science/EBM_CMSP/EBMconsensus).

**coastal uses, activities, and goals “are made based on best available science and incorporate principles of ecosystem-based management.”<sup>13</sup>**

Specifically, the **National Environmental Policy Act** is designed to evaluate the direct, indirect, and cumulative impacts of proposed activities in combination with all other past, present and reasonably foreseeable future activities that affect an ecosystem. Specifically, NEPA requires federal agencies to consider the potential environmental impacts of proposed federal (including federally-approved) actions, and to evaluate feasible alternatives. NEPA review may be required for programmatic actions, such as the adoption of a new national program or formal plan, or for more focused project-level actions.<sup>14</sup> If an agency determines that a proposed action will have a significant effect on the environment, NEPA then requires it to detail the expected impacts, alternatives, negative environmental effects that cannot be avoided, and the relationship between short-term uses and long-term sustainability in an environmental impact statement (EIS).<sup>15</sup>

By implementing an EBM approach that is integrated with environmental impact assessments under NEPA and other environmental analysis and decision-making laws and policies,<sup>16</sup> the NOC can help ensure that cumulative impacts are effectively addressed and minimized and that EBM is not simply another layer in an already complex system. An approach that integrates EBM with sector- and issue-specific environmental analysis and decision-making could lead to greater regulatory certainty, improve the effectiveness of ocean management, and decrease the burden on project proponents to conduct the large-scale and costly cumulative impact analyses.

We focus here on NEPA because this law provides significant but unrealized opportunities to integrate regional ocean plans and objectives into decision-making and to better manage cumulative impacts at the project- or action-specific level. **The advantage of integrating EBM programs with NEPA is that the NEPA process is:**

- **Forward-looking** and encompasses the goal of sustainable development;<sup>17</sup>
- The **first regulatory hurdle** in the development pathway for many projects;
- The point at which **analysis of cumulative impacts** occurs on a project level;
- In some cases, includes **mitigation requirements** to reduce significant impacts;
- The primary mechanism available to assess potential **ecosystem impacts** and conduct **baseline environmental analyses**;
- **Cross-cutting** in analysis, but linked to sector-specific decision-making;
- An existing process with large amounts of federal, state, and private **funding** used to implement it;

Further, a modern approach to environmental impact assessment could directly support and inform regional ocean governance (ROG). Done properly, this integrated approach could potentially ease the regulatory burden placed on ocean users.

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<sup>13</sup> *Id.* at 32.

<sup>14</sup> 40 C.F.R. § 1508.18.

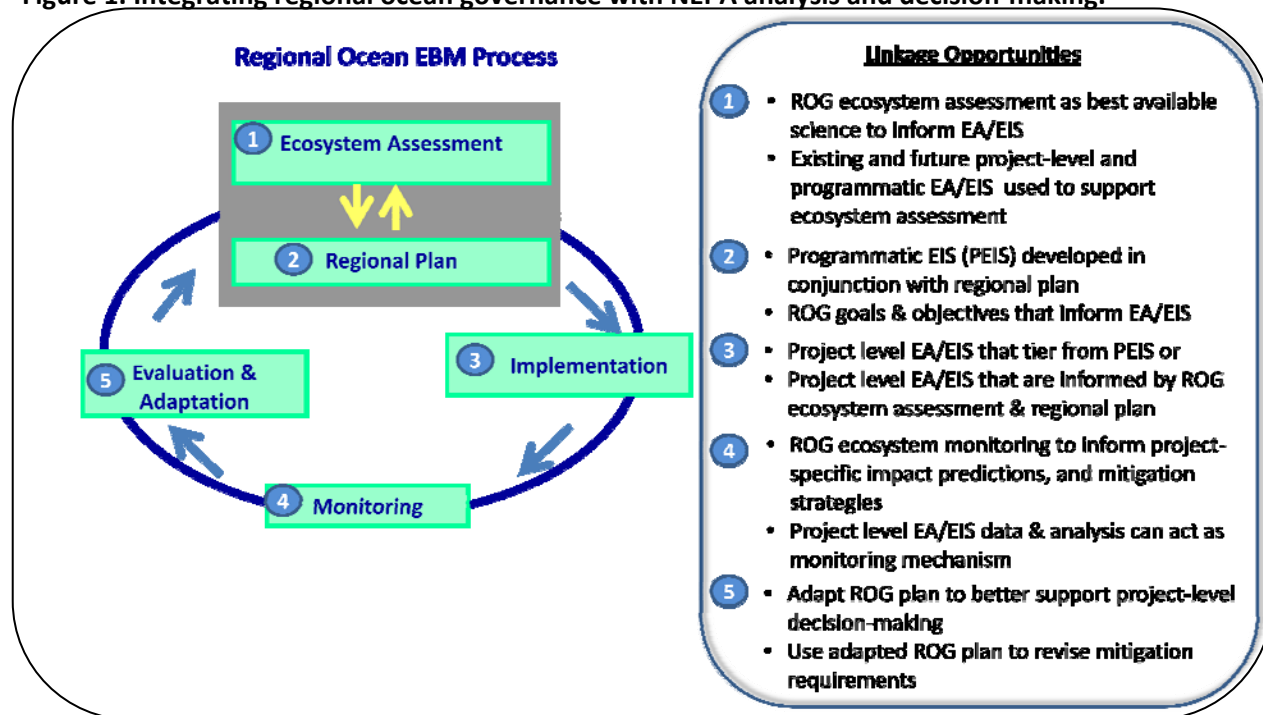
<sup>15</sup> 42 U.S.C. § 4332(c).

<sup>16</sup> Although this comment focuses on NEPA, the EBM SAP also should be designed to encourage federal agencies to link EBM with the suite of other mechanisms that may be used to implement regional EBM, including agency consultation, environmental permitting, enforcement, preservation, education, research, and outreach.

<sup>17</sup> For example, it requires analysis of today’s actions based on cumulative impacts of reasonably foreseeable future actions, among others.

To create a truly integrated system of regional ocean EBM, and not simply a regional layer on top of an existing sector-based management system, environmental assessment under NEPA should build from, align with, and inform regional ocean EBM. Figure 1 shows how this could be done. This approach could be applied to existing state and regional program processes (e.g., the Gulf of Mexico Alliance or the California Ocean Protection Council) as well as the newly created regional planning bodies established to implement coastal and marine spatial planning.

**Figure 1. Integrating regional ocean governance with NEPA analysis and decision-making.**



There are several opportunities throughout the regional ocean governance process where EBM and NEPA can be integrated. Each step of an EBM process can support and influence environmental impact assessment processes, and vice versa.

In particular, regional EBM assessments and plans could supply valuable baseline data and information to predict the direct, indirect, and cumulative impacts of specific proposed projects or actions under NEPA, ideally improving the accuracy of those predictions. Improved baseline information established in the EBM process also could reveal gaps in existing information, highlighting where further analysis, focused monitoring, mitigation, and the precautionary approach are most needed for a particular project-level NEPA analysis. Information collected at each stage of EBM planning and implementation could support and influence a NEPA assessment of the significance and magnitude of impacts of a proposed project. In addition, EBM monitoring at the ecosystem scale could frame and supplement project-level NEPA monitoring plans, by identifying issues of particular concern, gaps in existing monitoring, and the broader impacts of more localized events. Project-level NEPA analysis could utilize regional objectives as a basis for evaluating the significance of impacts, mitigation requirements and other decisions. Finally, information from project-level NEPA analysis can support and influence other activities undertaken to implement regional EBM.

**This approach works within the context of CMSP—one of the primary tools for EBM—as is also discussed in ELI’s comment on the CMSP SAP.**

**EBM SAP ACTION 3. Encourage regional ocean governance bodies (and *require* regional planning bodies under the coastal and marine spatial planning framework) to establish plans that contain concrete goals and measurable objectives that can be used to inform project-level NEPA analysis.**

As programs and plans are adapted and new programs emerge, goals and objectives should be designed with an eye toward informing decision-making at the sector- and issue-specific levels.

Ecosystem goals and objectives are important elements of regional planning that commonly articulate the desired future state of resources of the ecosystem. Concrete goals and measurable objectives are critical for accountability in an EBM program and help ensure that regional EBM goals are being met. In addition, concrete goals and measurable objectives can inform the regulatory process and other activities, including preservation, restoration, mitigation, and enforcement.

In the long term, as new EBM programs emerge, goals and objectives should be designed with an eye toward informing decision-making at the sector- and issue-specific levels. In order to best inform decision-making during environmental permitting and decision-making, regional goals and objectives should be concrete, quantitative, and measurable.

The EBM SAP should specifically encourage federal agencies and regional bodies to build from existing programs or develop new plans that contain concrete goals and measurable objectives that can be used to inform environmental impact assessments under NEPA. Managers and practitioners could use regional goals and objectives in the NEPA process to:

- provide information related to regional and state priorities that can be used to identify potential cumulative impact issues;
- serve as politically established limits on environmental impacts, which could signal the point at which impacts are considered “significant” and have reached unacceptable levels under the environmental impact assessment process; and
- support the agency’s decisions related to mitigation, monitoring, and adaptive management.

By integrating regional goals and objectives into decisions under NEPA, managers can help ensure that ecosystem objectives are realized.

***Box 1. A Hypothetical Example: Harmful Algal Blooms***

Assume nutrient loading from land-based sources were leading to harmful algal blooms in a region. The regional plan might have a goal of eliminating such human-caused blooms, with a measurable objective of limiting nutrient discharges to a specific amount. The plan could also indicate priority activities that should be allowed to continue discharging at some rate. This plan could inform project-level environmental impact analysis in several ways. First, the goal to eliminate harmful algal blooms would be an indication to agencies that activities that lead to nutrient loading may alone or in combination significantly impact the environment. Second, the agency conducting the analysis would have an indication of the target above which the cumulative nutrient loads would be excessive and therefore significant. Finally, this knowledge could lead project proponents or agencies to develop appropriate mitigation measures or conditional permits to avoid exacerbating the problem.

In addition, as a near-term action, the NOC should encourage managers and regulators to identify and integrate concrete goals and measurable objectives contained in *existing* regional EBM plans into their environmental decision-making. Sustainability goals and objectives are included in many of the existing regional and state ocean governance plans. These include goals and objectives developed under the West Coast Governors Agreement, the California Ocean Protection Council's Strategic Plan, and for coastal and marine spatial planning in Massachusetts. These regional goals and objectives can, and should, be used to support and inform environmental decisions and actions.

**Box 2. Existing Regional Goals and Objectives – The West Coast Governors Agreement Action Plan**

In May 2008, California, Oregon, and Washington released an Action Plan to guide implementation of the West Coast Governors Agreement on Ocean Health. The West Coast Governors Agreement Action Plan establishes seven action priorities to protect West Coast ocean and coastal ecosystems and economies. One of the seven priority areas is to protect and restore ocean and coastal habitats to advance a vision where: “Estuarine, marine, and coastal habitats are ecologically healthy and allow for public enjoyment and sustainable use.”<sup>18</sup> This vision is supported by three goals, which are: (1) to identify key West Coast habitats for protection and restoration; (2) to restore habitats and function of West Coast estuaries; and (3) to eradicate the invasive *Spartina* cordgrass coast-wide.<sup>19</sup>

Each of these three goals is connected to action objectives. For example, one objective is to “[d]ocument, describe, and map marine and estuarine ecological communities throughout West Coast waters, characterize existing human uses of those area, and establish measures to ensure effective habitat protection.”<sup>20</sup> Another is to “[r]estore estuarine habitats, including coastal wetlands, to achieve a net increase in habitat and their function by at least 10% over the next 10 years.”

Although the Action Plan does not directly link coast-wide visions, goals, and objectives with project-level implementation, the specificity of the objectives could assist decision-makers in making project-level decisions by supporting or suggesting project conditions, necessary mitigation, or focused monitoring. For example, if the goal of achieving a 10% net increase in habitat and function is taken into account, the agency could require a project proponent to mitigate environmental impacts on habitat connectivity, habitat value as spawning habitat, or vegetation coverage. This policy goal could also lead the agency to prioritize cumulative impacts on those resources and functions when those impacts are scoped during the environmental review process.

**EBM SAP ACTION 4. Establish methods and guidance to enable adaptive management.**

Adaptive management should ensure that lessons learned during project-level permitting and decision-making will feed back into and inform evolution of the EBM approach.

Effective EBM, including coastal and marine spatial planning, should include adaptive management as a key element in order to adapt regional ocean plans as knowledge, conditions, and circumstances

<sup>18</sup> Office of the Governors of Washington, Oregon & California, *Final Action Plan for the West Coast Governors' Agreement on Ocean Health* (May 2008) at 60-61.

<sup>19</sup> *Id.* at 44.

<sup>20</sup> *Id.* at 49.

change. Adaptive management allows managers to “routinely assess management actions to allow for better informed and improved future decisions.”<sup>21</sup> With an adaptive approach, data gaps can be filled and information can be consistently collected, analyzed, and integrated to support management decisions.

The EBM SAP should include adaptive management as a key element in developing and implementing an EBM system. An adaptive EBM system should incorporate monitoring to: (1) ensure compliance with the EBM plan; and (2) assess the status and condition of resources and the ecosystem to assess progress towards achieving regional goals and objectives. It should also be flexible enough to allow amendments to the plan if monitoring reveals that the objectives of the plan are not being met, and to respond to new policies, technologies, conditions and understanding.

In the long term, existing and emerging adaptive EBM approaches should integrate with project-level permitting and decision-making, so that these processes feed into and inform evolution of the EBM approach. Information collected during project-level permitting and decision-making can supply a level of detail that an ecosystem assessment cannot, and can provide focused information related to the actual impacts of projects or actions within a geographic region that can be used to inform broader scale management decisions.

Linking project-level data and information with a regional EBM approach will require improved methods for sharing, managing and storing data and information, and potentially new mandates for considering information gathered at the project level. Ideally, this information would be stored in a common, central database that would be available to the public, managers, and practitioners. The information would also be scalable and searchable by geographic area to inform evolution of the EBM plan.

**EBM SAP ACTION 5. Ensure that the EBM SAP is appropriately integrated with other SAPs developed pursuant to the Interagency Ocean Policy Task Force’s recommendations and National Ocean Council mandate.**

Since CMSP is a major tool for EBM implementation, it will be especially important to link the EBM SAP with the development and implementation of coastal and marine spatial planning.

In addition to the EBM SAP, the NOC is developing strategic action plans for eight other priority objectives. These are: (1) Coastal and Marine Spatial Planning; (2) Inform Decisions and Improve Understanding; (3) Coordinate and Support; (4) Resiliency and Adaptation to Climate Change and Ocean Acidification; (5) Regional Ecosystem Protection and Restoration; (6) Water Quality and Sustainable Practices on Land; (7) Changing Conditions in the Arctic; and (8) Ocean, Coastal, and Great Lakes Observations, Mapping, and Infrastructure. As a “foundational principle,” the concepts, objectives, and actions taken to effectively implement EBM may inform, influence, or affect implementation of the other national priority objectives. The NOC should, accordingly, ensure that all strategic action plans are appropriately aligned and integrated.

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<sup>21</sup> Interagency Ocean Policy Task Force, *supra*, note 11.