



UNIVERSITY OF WASHINGTON

SCHOOL OF MARINE AFFAIRS

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Dr. Jane Lubchenco
National Oceanic and Atmospheric Administration
Room 6811
14th Street & Constitution Avenue, NW
Washington, DC 20230

Re: Development of Guidelines for Integrated Ecosystem Assessments

The NOAA Science Advisory Board's Ecosystem Sciences and Management Working Group [ESMWG] has focused a substantial portion of its last three meetings on investigating the status of Integrated Ecosystem Assessments in NOAA. The ESMWG has prepared advice on the development of IEAs which the NOAA SAB has approved and I am now transmitting to you for your consideration.

As you know, developing regional IEAs was a major recommendation of the External Ecosystem Task Team of the NOAA Science Advisory Board in 2006. The ESMWG has reviewed the NOAA Technical Memorandum on IEAs, considered key scientific papers on the topic, received briefings on IEA development in Puget Sound and the California Current system, and undertaken its own investigation of similar types of ecosystem assessments conducted by NOAA and other entities. In addition, through the ESMWG co-Chairs we solicited from NOAA staff input on good examples of IEAs that we might include in our evaluation. At our February 2010 meeting we were briefed on the initiation of IEAs for the Northeast Shelf and the Gulf of Mexico, and heard from local NOAA scientists on their plans for a Kona Coast IEA. The evolving California Current IEA is providing an instructive example and when coupled with experiences from its other regional assessments and IEAs, NOAA should be able to assemble a general approach for IEAs that can inform a diverse array of coastal and ocean management issues.

The ESMWG considers IEAs to have enormous potential in providing a sound scientific foundation for ecosystem-based approaches to management of our coasts and oceans. By embracing ecological, economic and social dynamics to inform multi-objective management decisions (e.g., fishery, hazard mitigation, conservation, and energy development) they offer value-added to NOAA's core science, service and stewardship missions. However, our investigations have failed to identify a clear NOAA methodology to guide the development of IEAs. Moreover, the current approach, although undoubtedly being undertaken by qualified experts working in good faith, appears somewhat ad-hoc to the Working Group. The lack of both a pre-identified consistent framework to apply in these assessments and clarity on when and how

to engage stakeholders are likely to lead to confusion and false expectations. It is also unclear if and how these IEAs are different from NOAAs other recent and planned regional assessments.

For IEAs to inform ecosystem management decisions they must provide fundamental information including baseline data, status and trends assessments, evaluations of likely impacts of existing and future human activities based on ecological, economic, and socio-political process studies (including cumulative impacts and possible trade-offs among human uses), and scenarios for both ecosystem trends and alternative human uses. This information has to be both reliable and relevant, and accessible to all engaged in the decision making process. This is best achieved through a more formal internal and external structure allowing scientists and stakeholders to work together toward clear goals, and enabling more effective leveraging of funding that may be available to support research crucial to IEA development and application. In addition, IEAs should be developed within a framework that either is or can be directly developed for decision support.

ESMWG recommends that NOAA develop guidance for scientists, managers and their partners to develop timely and effective IEAs. This should include a generalized work plan for the development of IEAs that guides a balance between consistency in approach and flexibility to regional differences. Guidance to regional teams should describe appropriate methods and approaches to be used and the nature of IEA outputs related to the following essential elements of IEAs:

- Unambiguous goals for the IEA and early identification of the array of policy and management objectives the IEA is expected to inform. This, in turn, defines the
 - geographic scope of the assessment process,
 - data needs,
 - decision makers and stakeholders who need to be engaged in scoping the problems, opportunities, needs and constraints associated with the management of the subject ecosystem,
 - scientists with information to contribute to the process, from within NOAA, other agencies, NGOs and academia who need to be engaged early in the process, and
 - relationships of the IEA to other ecosystem based management processes, e.g., watershed plans, for adjacent systems.
- Identification of ongoing methods for stakeholder engagement including a transparent process for deciding how their data and input can be incorporated into the analysis
- Broad consideration of the key interactions among ecosystem components, including both market and non-market ecosystem goods and services, and between human activities and the ecosystem components
- Explicit consideration of ecological, social and economic processes driving the current system and how they are likely to change in the future
- Quantification of trade-offs among ecosystem services potentially resulting from current and future management decisions
- Identification of data gaps and key risks and uncertainties

- The development of a Decision Support System that uses the data and models to make tradeoffs, future conditions, and/or alternative scenarios transparent and accessible.
- A process for external peer review and routine updates of the assessments

The ESMWG is willing to assist as necessary in the development of this guidance and members are interested in reviewing draft guidance as it is developed. The Working Group will continue to track the IEA and related regional assessment efforts currently underway, e.g., California Current, and those just beginning in other areas.

Sincerely,

A handwritten signature in black ink that reads "David Fluharty". The signature is written in a cursive style with a large, stylized 'D' and 'F'.

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