



FUTURE *of* COASTAL MANAGEMENT

KEY FINDINGS OF MANAGER INTERVIEWS



noaa NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
csO COASTAL STATES ORGANIZATION

I. INTRODUCTION

The Office of Ocean and Coastal Resource Management of NOAA's National Ocean Service and the Coastal States Organization (CSO) are engaging stakeholders to find innovative ideas for improving coastal zone management in the U.S.¹ The goal of the project is to develop a suite of options for revising the Coastal Zone Management Act in its pending reauthorization. The project is divided into three distinct phases. This paper describes the methods and outcomes of Phase II.

Background

The release of landmark recommendations for improving ocean and coastal management by the U.S. Commission on Ocean Policy and Pew Oceans Commission have prompted discussions within the coastal management community on ways to improve NOAA's Coastal Management Program. In response, NOAA's National Ocean Service, with leadership from the Office of Ocean and Coastal Resource Management, and CSO have embarked on a project to engage coastal managers and stakeholders to envision the future of coastal management.

The goal of this visioning process is to gather feedback on priority issues and innovative ideas for improving the Coastal Zone Management Act (CZMA) and the National Coastal Management Program. It is being executed in three phases:²

- In Phase I, NOAA and CSO prepared an initial discussion paper that identifies some current issues, constraints, and opportunities in coastal management. The document, completed in September 2006, is not intended to be comprehensive, but instead identifies topics and questions to be examined in subsequent phases.
- In Phase II, NOAA and CSO interviewed state coastal program managers, estuarine research reserve managers, and other state-level officials to gain a better understanding of managers' perspectives of current and emerging state coastal management priorities and solicit recommendations for how coastal management might be improved.

¹ The Coastal States Organization represents the interests of the Governors of the thirty-five coastal states and territories on legislative and policy issues relating to the sound management of coastal, Great Lakes, and ocean resources.

² Information about the visioning project, including materials from Phases I and II, can be found at www.coastalmanagement.noaa.gov/czm/czma_vision.html

- In Phase III, NOAA and CSO will engage the broader coastal community for their input on coastal management priorities, issues, and suggestions for improving the CZMA and the National Coastal Management Program. Stakeholders will come from state, local, and federal government; industry; academia; and recreational and non-governmental interests.

The final outcome will be a set of core principles, a suite of options for revising the CZMA, and suggestions for other techniques that NOAA and the states may consider implementing.

Phase II Surveys

In August 2006, CSO convened a steering committee to develop interview questions and identify participants for the Phase II interviews.³ Interviews were conducted with a total of 58 individuals: 35 coastal managers from 33 of the 34 approved state coastal programs, 13 national estuarine research reserve managers, and 10 additional individuals with significant regulatory authority or other influence over state coastal resources.⁴ The interviews were not intended to be a scientifically rigorous survey of managers' perspectives, but rather to provide an overview of common viewpoints and stimulate innovative thinking about solutions.

In preparation for the interviews, CSO and NOAA distributed to participants a brief description of the visioning initiative, the Phase I discussion paper, and the interview questions, so that participants could consider their answers in advance of the interview. In addition, presentations and round-table discussions were held at the 2006 CSO Annual Meeting, the 2006 National Estuarine Research Reserve Annual Meeting, and separately at regional meetings held in the OCRM-designated regions of the Northeast, Great Lakes, Southeast, Pacific, and All Islands.⁵

³ The steering committee consisted of representatives from CSO, NOAA, the National Estuarine Research Reserve Association, and CSO's Coastal Zone Management Reauthorization committee.

⁴ This group of ten included select representatives from state fishery agencies, state governors' offices, natural resources agencies, and public lands agencies, among others.

⁵ OCRM delineates these regions as follows:

Northeast: Maine, Massachusetts, Connecticut, Rhode Island, New Hampshire, New York, New Jersey, Delaware, Maryland, Virginia, Pennsylvania

Southeast: North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas

Great Lakes: Ohio, Indiana, Illinois, Wisconsin, Michigan, Minnesota, New York, Pennsylvania

Pacific: California, Oregon, Washington, Alaska

All Islands: U.S. Virgin Islands, Puerto Rico, Hawaii, Commonwealth of the Northern Mariana Islands, Guam, American Samoa

Experts in coastal management conducted the interviews in October and November of 2006.⁶ Most interviews were held with only one manager at a time, but occasionally several managers from a state or territory participated. Interviewers maintained an informal tone in order to encourage creative thinking and openness. After the interviews, transcripts were distributed to participants for review in order to ensure that responses had been accurately recorded.

II. MAJOR FINDINGS AND INNOVATIVE IDEAS

This section summarizes the major findings and ideas that emerged from the Phase II interviews and meetings described above. Major findings and ideas represent those interview responses and trends in results that seem most important to the organizers of the visioning process. They are organized by the following sections:

- Current Resource Pressures
- Program Tools and Priorities
- Emerging Resource Threats
- CZMA: The Law
- A Voluntary Partnership
- Champions
- Innovative Ideas
- Comparisons among Results

Current Resource Pressures

Participants were asked to identify the most pressing issues facing coastal managers today, the agencies with lead responsibility for those issues, and the activities that managers' programs are implementing to address them. As indicated in the *Table of Most Commonly Identified Pressures*, the most frequently cited issue was growth and associated land use changes. Habitat and water quality were also frequently identified, followed by hazards, societal factors, and lack of internal capacity.

⁶ Debra Hernandez of Hernandez and Company, LLC and Cheryl McClary, an independent consultant.

Table of Most Commonly Identified Pressures

This table reflects the responses of 58 participants who were each asked to identify the top three pressures on coastal resources in their state.⁷

| Pressures | Number of Responses |
|-------------------------------|---------------------|
| Growth | 56 |
| Habitat | 29 |
| Water Quality | 25 |
| Hazards | 17 |
| Societal | 13 |
| State/Local Internal Capacity | 13 |
| Water Quantity | 4 |
| Oceans | 4 |
| Public access | 4 |
| Fisheries | 3 |
| Energy | 2 |
| Sediment Mgt | 2 |
| Marine Transport | 2 |

The category of *growth* reflects responses related to land development and conversion, sustainable development, population increase, and urbanization. Participants identified local governments as having lead agency responsibility for addressing growth-related issues, even though state agencies were credited with having some capacity as well. Managers of coastal programs most often use technical and financial assistance for local governments, state regulations, and the CZMA’s federal consistency provision to address this issue. National estuarine research reserve managers most often use the Coastal Training

⁷ The following categories are not otherwise defined in the narrative. (See page 4 for *growth*, *habitat*, and *water quality*.) They capture responses as outlined below:

- *Hazards*: global climate change, sea-level rise, coastal hazard mitigation
- *Societal*: social, cultural, and political factors such as lack of awareness, community involvement, and political will; poor relationships with key stakeholders; lack of enforcement
- *Internal Capacity*: lack of funding, appropriate staff resources, inter-agency coordination, and technical assistance for local governments; fragmented management approach; poor understanding of the resource
- *Water quantity*: water conservation, water supply
- *Oceans*: ocean uses, energy, ocean policy, aquaculture
- *Public Access*: public beach access, issues for working waterfronts
- *Fisheries*: stock recovery
- *Energy*: energy development
- *Sediment Management*: dredging, shoreline management
- *Transport*: marine transportation, ports

Program, educational programs, technical assistance, and research to support management. Land acquisition and conservation were mentioned as useful tools as well.

The *habitat* category captures responses related to invasive species, habitat loss and fragmentation, ecosystem restoration and conversion, and wetlands loss. Respondents maintained that management is highly fragmented and that no one agency or entity has a clear lead on addressing habitat issues. They identified species-based management as a reason for this fragmentation. State coastal program managers most often use regulation and restoration, and national estuarine research reserve managers use external capacity building for state and local managers, restoration, education, control of invasive species, and research to address habitat issues.

Water quality issues are those related to nitrogen loading, nonpoint source, toxic sediment, and other forms of water pollution. State agencies such as state water quality boards, coastal programs, or state-level agencies that issue water quality permits were frequently identified as being the lead. Local governments were only cited as lead entities on nonpoint source pollution. Coastal managers address water quality problems through funding, technical assistance, and interagency coordination while national estuarine research reserve managers use research, the Coastal Training Program, and education. Other participants added permit review as a frequently used tool.

A number of societal factors were identified as detrimental to efforts to address the major resource pressures. The most common, particularly among state coastal program managers, were a lack of awareness and lack of political will to address difficult issues. Other factors mentioned frequently were (a) weak relationships between state and federal management agencies and key stakeholders and (b) low community involvement and local stewardship ethic.

Emphasis on these societal factors indicates a need for tools and strategies to address a range of social, cultural, and political barriers to effective management. Potential solutions that emerged from interviews included:

- Improved communication between local, state, and federal agencies
- Marketing to increase public understanding of the value of the coastal zone and coastal management to society
- Marketing to cultivate coastal champions among local governments, public citizens, and regulatory agencies so that they become active in coastal management solutions

Program Tools and Priorities

Participants were asked to describe the frequency with which they use specific categories of management tools. When responses are evaluated by participant type, they indicate that all managers employ a range of tools, but that incentives-based mechanisms and local government permitting are used infrequently by both coastal program and estuarine research reserve managers.⁸ They also indicate clear differences in usage between coastal program and estuarine research reserve managers. Coastal managers tend to use pass-through grants, planning, and program guidance relatively more frequently while national estuarine research reserve managers focus more on training and technical assistance, outreach and education, and scientific studies. These patterns reflect the missions and goals of the programs.

Coastal program managers were asked to identify one thing that would most contribute to their ability to effectively address coastal resource problems. They most frequently cited political will, followed by increased internal capacity and funding for additional staff and enhancement of services. Respondents also discussed a need for improved communication among agencies and levels of government, increased public awareness and local government buy-in, and better information for decision making.

Participants were asked to identify specific priorities of their programs. The top priorities cited for state coastal programs were growth, habitat, and hazards. Also mentioned were ocean management and energy siting, as well as programmatic priorities such as educating the public about coastal and ocean issues, and improving internal capacity. National estuarine research reserve managers identified activities of research, education, and stewardship, as is consistent with their mission. Their priority resource management issues are habitat restoration, coastal nonpoint source pollution, watershed management, sustaining biodiversity, and reducing invasive species. Of note, while water quality was identified as a pressing issue, neither group of participants cited it as a program priority. Their view of other state agencies and water quality entities as the lead on water quality may explain this inconsistency.

When asked to describe the processes their programs use to set priorities, most respondents identified a combination of formal and ad hoc methods, with some seeking guidance from NOAA. When asked whether their program priorities align with the top pressures currently threatening coastal resources, almost all respondents said their program priorities did align.

⁸ An example of an incentive-based tool is expedited administration of permits and grants in exchange for more rigorous management.

Emerging Resource Threats

Participants were asked to identify the most critical emerging resource pressures, respond to ideas about how states could address emerging threats, and identify the most important partners for doing so. When asked to imagine the greatest challenges they would face in the future, participants stated that current issues would continue to confront them, particularly those related to growth and habitat. The most frequently cited emerging issues were the effects of climate change, inundation, and coastal hazards. Others mentioned were habitat issues such as invasive species; water quality issues, particularly nonpoint source pollution and eutrophication; ports issues; and energy development.

Managers generally felt that states should address emerging coastal resource threats by working further up the watershed and engaging more with local governments and state political leaders. Participants explained that partnerships with local governments would allow agencies to better address the linkages between land use and coastal and estuarine water quality and to improve and expand management throughout coastal watersheds. Additional outreach to the general public was also identified as important.

CZMA: The Law

Participants were asked a series of questions regarding their perspectives on the CZMA and the coastal management program as currently implemented by the states and NOAA. Participants generally viewed them as a governance model, different from most other resource protection programs in its emphasis on partnerships, government coordination, and a balance of resource use and protection. They expressed support for the current structure of the Act, specifically, (a) the flexibility the Act provides that allows states to address their individual needs and (b) the broad and balanced construction of the CZMA that requires consideration of environmental, social, and economic factors.

The CZMA does not lay out clear priorities and instead leaves priority setting to the states. When participants were presented with the possibility of priority development under the Act, they generally expressed support, but with some concern about what process would be used to establish priorities and how they would be implemented. Common ideas for national priorities included:

- Mitigating coastal hazards
- Sustainable communities
- Ecosystem-based management
- Management of offshore energy development
- Habitat protection and restoration
- Watershed management and water quality

Reasons given for opposition to national priority setting included concerns that national priorities would not align with state priorities and would result in burdensome requirements. Participants stressed that priorities should be developed either by the states or collaboratively among the states, NOAA, and other stakeholders and that they be established administratively rather than through legislation. Many suggested the creation of a regional process for priority setting. Some participants felt that, rather than prioritizing substantive issues, the CZMA should focus on the enhancement of state capacity, on supporting the process of place-based ecosystem-based management, and on getting effective tools and science into the hands of state and local of decision makers.

The structure of the CZMA requires managers to strike a balance between resource protection and economic development. Participants were asked whether they agree that this balance is the correct definition of success in coastal management, and if they disagree, to offer alternative definitions. Most respondents support this balance as a goal, but many would prefer a definition that describes win-win scenarios as opposed to trade-offs, believing that the current definition “creates a false dichotomy of economic development and (environmental) protection.” The most common alternative definitions offered during the interviews can be grouped into three categories:

1. Sustainable development / sustainable communities
2. Measures of the structure or function of ecosystems
3. Positive feedback from key stakeholders

The goals of the CZMA as currently written are broad and cover many coastal management topics. Most participants oppose the establishment of narrow goals, with concern that these would limit their ability to focus on state priorities and result in the exclusion of issues particular to certain regions or states.

Managers generally stated that they do not believe the CZMA is an obstacle to better coastal management, but rather, that lack of political will and political support for coastal management are the key problems. However, when participants were asked to describe ways in which the CZMA and coastal management program could be strengthened, they provided many suggestions, including:

- Provide more funding
- Improve federal agency coordination
- Strengthen federal consistency provisions
- Support regional coordination
- Improve communication to better articulate the National Coastal Management Program’s value and benefit to decision makers at the local, state, and national levels

- Address the lack of political support for the CZMA by employing communications experts to help agencies craft more effective messages
- Include sustainable communities, ecosystem-based management, or watershed-based management as a new component of a reauthorized CZMA

A Voluntary Partnership

Partnerships are a cornerstone of the National Coastal Management Program, so participants were asked to describe the key characteristics that the federal-state partnership under the CZMA should possess. The most common responses related to flexibility; open lines of communication; support, cooperation, and responsiveness; shared goals; and mutual understanding and respect.

When asked to identify organizations with which NOAA's National Ocean Service should build relationships to better leverage coastal program assets, participants most frequently identified the U.S. Environmental Protection Agency (EPA), the Department of Interior, and other parts of NOAA. They also mentioned the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, the National Science Foundation, and the U.S. Department of Agriculture.

Participants were asked to identify new relationships they could build at the state level to leverage their programs' assets and address priority projects. Many responded that local governments would be the top priority. Others identified were state agencies that implement EPA-supported programs such as water quality permitting, academia, state fish and wildlife agencies, land trusts, the development community, and the marine and boating industries.

Champions

Participants were asked to speculate on why the National Coastal Management Program suffers from a shortage of visibility and support in Congress, suggest ways to address this shortage, and identify who should take action. Many respondents stated that the program lacks visibility and support because it is:

- Process-oriented
- Established
- Not seen as linked to 'hot' issues
- Requires relatively low levels of appropriations
- Seen as an impediment to development

In order to cultivate champions for coastal management among high-level stakeholders and decision makers in government, participants suggested employing marketing professionals to help improve messaging around coastal management and develop a strong identity for the program. Some suggested that a national message should convey the importance of coastal zone management to economic sustainability and emphasize that money goes back to the districts. Many also identified a need for increased buy-in from the states, believing that states are more likely to support enhanced funding for implementation of the CZMA if they are confident that the federal government is willing to address their needs and work in partnership toward their objectives. Most of the managers interviewed believe that the states, CSO, NOAA, and key stakeholders should work together to improve the image of the program.

Other suggestions were:

- Communicate more effectively with elected officials
- Support CSO's lobbying efforts
- Reinvigorate the program with new initiatives
- Become more involved with the Congressional Coastal Caucus
- Partner with the development community
- Encourage local governments and developers to express support for coastal management
- Visually map performance measures for presentation to Congress

Participants generally maintained that their governors are aware of state coastal programs and currently support them in state budgets and congressional lobbying efforts. When asked to identify what the public, primary stakeholders, and their states' political leadership seem to value most about their program, managers felt that all parties most value funding and grants to local governments.

Innovative Ideas

Innovative ideas are those that address emerging issues or present new solutions for ongoing challenges.

The list below represents some of the more innovative suggestions that emerged from Phase II:

- Consider a *tiered approach to coastal management* by allowing states to opt-in to new program initiatives. States pursuing these additional initiatives would be eligible for increased funding and authorities.
- Use a *social marketing approach* to more effectively discuss the value of coastal management.
- Use *stakeholder surveys* as indicators of success in coastal management.

- Conduct a *critical analysis* of the federal programs that have developed since the passage of the CZMA. Identify and address areas of program overlap and *remove unnecessary* components from the current scope of the CZMA.
- Move towards an *ecosystem-based strategy* for land acquisition that accounts for linkages among coastal and ocean systems. Increase coordination between NOAA and federal land management agencies.
- Promote a *flexible regional approach* to priority setting. Conduct priority assessments and reevaluations periodically.
- Dramatically *increase science-to-management* efforts. Specifically, translate more ocean observation data into information that is useful to managers.
- Add language to the CZMA that *emphasizes the importance of sound local land use planning* and management and encourages or requires states to develop strategies for engaging local governments to achieve coastal management objectives. Enable formal *partnerships with local governments* in recognition of local jurisdiction over coastal land use decisions in most states.
- Develop a *competitive fund* for land or facilities acquisition and special projects.
- Improve and provide *information about climate change* and its potential impacts to policy-makers at all levels in order to enable adaptive planning and preparations.
- Provide a *forum or authority for increased communication and coordination* among relevant state and federal agencies.

Comparisons among Results

Interview results were analyzed for trends among geographic regions and participant types. In general, more similarities than differences emerged in both analyses.

Similarities and Differences among Regions

In general, many similarities emerged among regions in terms of the management approaches they use, the challenges they face, and the solutions they propose. The few regional differences that did emerge include:

- The Gulf of Mexico and Great Lakes states were the only regions to identify water quantity issues as a top challenge.
- All of the Great Lakes states cited water quality as a priority issue, as opposed to 50 percent or less of states in other regions.
- Managers from the Great Lakes and Islands regions were the only to comment on difficulty in hiring technically qualified staff.

Similarities and Differences among Participants

Among the three participant groups (coastal program managers, national estuarine research reserve managers, and other state participants), noteworthy similarities included:

- Issues related to growth were identified as the primary threat to the coast.
- The impact of fragmented habitat management across a number of both federal and state agencies caused concern among participants.
- Participants expressed a desire for improved partnerships between state and local governments on a range of resource issues.
- Awareness that upland watersheds are integrally linked with nearshore and oceanic systems leads participants to strive to manage beyond the artificial boundaries often drawn between these systems.
- Managers appreciate the diverse range of priorities among states and believe that any national priorities established should allow flexibility for regional and state level priority setting. They generally advocate for reevaluation of priorities every three to five years.
- Participants recommended improving vertical and horizontal coordination among federal agencies, particularly among NOAA and the coastal programs of the U.S. Environmental Protection Agency and the Department of Interior.

While there were few differences among the three participant types, they did differ widely in the tools they stated they use to achieve their program goals. These generally reflect the differences in the missions of their programs. A distinction also emerged on the question of whether the CZMA's goal of balancing resource protection and economic development is appropriate. Coastal program managers tend to believe that achieving this balance is the proper goal for coastal management, while the national estuarine research reserve managers and other participants expressed concern about using this balance as a definition of success and suggested alternatives that reflect the interdependence of healthy coastal ecosystems and robust economies.

III. NEXT STEPS

The insights and ideas collected in the interviews and analyzed in this report will be used to help lay the foundation for Phase III of *Envisioning the Future of Coastal Management*. During this next phase, NOAA and CSO will engage the broader coastal community for their input on priorities, issues, and opportunities to improve the CZMA and implementation of the National Coastal Zone Management Program. The information contained in this report will be used to guide and target both these stakeholder discussions and meetings with federal stakeholders. Ultimately, ideas generated through this process will be used to inform the development of core principles for coastal management, specific changes to the CZMA, and increased linkages with coastal partners.

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