



State of Delaware  
Office of the Governor

Ruth Ann Minner  
Governor

June 1, 2004

James D. Watkins  
Admiral, U.S. Navy (Retired)  
Chairman, U.S. Commission on Ocean Policy  
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Suite 200 North  
Washington, DC 20036

**Subject: Preliminary Report of the U.S. Commission on Ocean Policy  
Governor's Draft, Washington, D.C., April 2004**

Dear Admiral Watkins:

I am pleased to submit Delaware's comments on the Preliminary Report of the U.S. Commission on Ocean Policy. Your findings and recommendation are of the utmost importance to Delaware. As you may be aware, no piece of land in Delaware is farther than eight miles from tidal water. As such, the Atlantic Ocean and its estuaries have profound impact on Delaware's economy and environment.

We have conducted a thorough review of the Preliminary Report. We held three public workshops across the state and all participants overwhelmingly recognized the importance of the oceans and coasts. We solicited comments from expert reviewers, requesting comments on either specific chapters and/or recommendations. These included many of my state agencies, local government planning departments, the University of Delaware and other institutions of higher learning, the State Conservation Districts, and many knowledgeable individuals.

Over 400 specific written comments (115 pages of text) from more than fifty specialists were received and considered. We also reviewed and considered hundreds of letters and dozens of verbal comments. Highlights of comments received are presented below. Other important issues that merit formal comment are included in the attached comprehensive summary of Delaware's comments.

While most of the recommendations in the report are commendable, I cannot emphasize enough that they will be meaningless unless adequate funding is provided to the States for our roles in implementation.

## **Management and Implementation**

Management and implementation of solutions was inadequately addressed throughout the report. Certainly, “governance” was discussed, but the focus was from a national perspective. We are a *Nation of States*, and the states are where many of the decisions impacting our coasts and oceans will be made. The impact of human activities cuts through every chapter of the report, yet the management of these human activities, whether as individuals, communities or cultures are barely discussed. Chapter 9 mentions the need to reauthorize the Coastal Zone Management Act (CZMA) and recommends amendments that are worthwhile, but reflects a misunderstanding of the importance of this law to coastal states. **Congress must reauthorize and amend the CZMA.** This reauthorization must recognize and strengthen the CZMA’s community planning and smart growth elements, ocean management, watershed management, habitat restoration, and support special area management planning.

This effort should be linked with the other recommendations concerning management of watersheds and implementing the changes needed to restore ecosystems. Many issues discussed in the report could be addressed by enhancing state coastal management programs. Managing urban growth, restoration of brownfields, reducing pollution from watershed land uses and practices into coastal waters, avoiding or reducing natural hazards along shorelines and in floodplains, and reinvesting in port and harbor facilities are examples of areas where coastal management programs can have a significant impact. These efforts dovetail with my Livable Delaware program.

## **Education**

We here in Delaware agree that there is a need for a systemic change in coastal and ocean literacy in order to advance the stewardship of these vital resources. However, the recommendations in Chapter 8 give only superfluous recognition of state and local responsibility and control in education. The report omits the U.S. Department of Education and both state and local education entities from responsibilities and funding. There is not a recommendation for any financial incentives to facilitate state partnering with higher education to infuse coastal and ocean-based examples into curricula at our schools. There needs to be. There is no recommendation for the engagement of educators who write the educational standards that students and teachers must meet. There needs to be.

The report identifies the importance of education and public awareness in developing stewards of our coasts and oceans. Yet I must say, it is naive in its expectations and too simplistic in its recommendations for the desired changes in ocean literacy. This is particularly evident for the broader K-12 education/pre-college community. The report has undercapitalized the effort required. The funding levels have not recognized that the infusion of ocean science education throughout the pre-college sector is a new initiative that requires new money. The funding levels recommended are inadequate to impact the educational system in the US. With regard to ocean education, the plan leaves many children behind.

## **Science**

Perhaps the most difficult challenge facing the management of our coastal and ocean resources is managing those resources in a social environment of scientific uncertainty. Many of the most pressing issues and problems affecting the coastal and ocean environment are complex and often difficult to explain in simple cause-and-effect terms. The oceans are the major driver of earth's life support system, the minimal support for coastal and ocean science is not acceptable. Our lack of understanding of watersheds, estuaries and oceans dynamics has resulted in piecemeal legislation to address the 'problem of the moment' and wasted our financial resources in applying management strategies based on incomplete understanding. The report calls for ecosystem-based management, which assumes we understand how ecosystems, with all their interconnected parts, work. The Commission should reduce the time to ramp up funding for science from its recommended 5 years to the 2 or 3 years it has suggested for other priorities.

## **Monitoring and Observation**

Delaware strongly supports an Integrated Ocean Observing System ( IOOS). There are many examples of how a system modeled after the National Weather Service programs would help Delaware, just one will be presented here (others are in the attachment). We want to provide the advice and counsel stipulated in the report and I offer Delaware to serve as a pilot.

Neither Delaware nor any other state should be responsible for underwriting the cost of such a system. IOOS is planned to be a national federation of regional systems. Regional systems are not defined according to state or other jurisdictional boundaries – they are organized by ecosystems. Even though IOOS will be organized by regions in order to accommodate the uniqueness of each ecosystem, IOOS is still a national system. Some early drafts of federal legislation to appropriate funds for IOOS have gone so far as to stipulate \$1:\$1 match federal: state. The National Weather Service is not funded by state matching funds and neither should the IOOS.

### **IOOS and Localized Storm Impacts**

The National Weather Service (NWS) network of observing stations and remote sensing capabilities are exemplary in predicting regional events and rainfall over large areas. There is the need for a more localized observing system in regions as discovered by the unfortunate incident of September 15, 2003. While NWS locations only reported 1 to 2 inches of rain throughout the region, a localized storm band of Tropical Storm Henri deposited an estimated 8 to 11 inches of rainfall over the headwaters of the Red Clay Creek watershed. This deluge caused an estimated 4.3 millions dollars of damage downstream. The area was designated a federal disaster area. Due to lack of a real-time warning system, there was little advanced warning to homeowners and businesses in the area. If this event had not happened during daylight hours there could have been a significant loss of life. The technology exists to couple weather radar with local real-time stations to accurately predict localized storm events and provide early warning, but funding and an organized structure for implementation must be secured. The IOOS would provide the ways and means to accomplish a real-time observing network and early warning system to protect the citizens of Delaware from future storm events.

## **Governance**

It is undeniable that strong leadership is needed at the federal level to affect the major changes called for in the report. The proposed National Ocean Council in Chapter 4 may be the best solution, but I caution the Commission against the establishment of a new bureaucracy at the expense of existing statutory mandates. The National Ocean Council should coordinate and facilitate national missions and implementation and assists in regional, state and local implementation. The information describing the Presidential Council of Advisors on Ocean Policy (recommendation 4-5) lacks sufficient details. Additionally, Presidential Council of Advisors on Ocean Policy must include **at least** one Governor of a coastal state. The workload assigned to both of these Councils may require more than a “small staff”.

The proposed regional governance and research framework for coastal and ocean issues (recommendation 4-10) is good. Delaware is a part of the Mid-Atlantic Regional Systems that relates to the Mid-Atlantic Bight, ranging from Cape Cod to Cape Hatteras. We would like to volunteer to work with other states in this region to pilot this framework.

Although Delaware does not have oil or natural gas production facilities off its coastline, there is potential for new liquid and methane hydrate natural gas supplies from both shallow and deep water off the Delaware coast. We are also engaged in preliminary discussions with companies proposing renewable energy projects including offshore windmills and tidal turbines. With increased emphasis on utilization of not only renewable energy resources, but also on potential utilization of sand and gravel resources and emplacement of artificial reefs, competition exists for ocean-based resources offshore Delaware. Effective management of these competing uses is imperative so that as a nation we do not go down the same piecemeal “land use” path in the ocean as we have on land.

## **Funding**

I commend the call to provide sufficient funding for a dedicated coastal and estuarine land conservation program. Delaware has long recognized the importance of protecting open space. Having been the creator of our open space program, I am especially grateful that the Commission recognizes the importance of permanent conservation of our critical coastal and estuarine lands.

The establishment of an Ocean Policy Trust Fund outlined in recommendation 30-1 is critical to implementing the changes proposed throughout the report. Delaware asks the Commission to strongly consider an allocation formula that recognizes that there are not just two categories of states, those with offshore federal land leases and those without.

The Delaware River supports the second largest petrochemical industry in the nation and must deal with the cumulative and secondary impacts of this industry, including accidental releases from refineries, oil spills and shoreline erosion caused by ship traffic. The US Coast Guard estimates that approximately 70% of all crude oil entering the Eastern United States transits the Delaware Bay. Over a ten-year period, the main shipping channel between Philadelphia and the Atlantic Ocean accommodated an average of 107 million tons per year involving over 150 different commodities. Crude petroleum and petroleum products represent more than 80% of the total tonnage of commodities moved. Volatile Organic Carbon (VOC)

emissions from petroleum transport and production are a significant source of ozone precursors. Controlling VOC emissions from lightering activities in the Bay and offshore has been targeted to help Delaware attain Air Quality Standards for Ozone. Additionally, maintenance dredging and potentially deepening the Delaware River Main Channel to accommodate this vessel traffic has wide reaching environmental impacts.

The amount of material moving through Delaware and its impact is vastly out of proportion with the population and coastline of the state. Thus, any distribution of OCS funds based solely on impacts of offshore leasing and development programs would put Delaware at great disadvantage. Delaware is clearly impacted by the movement and production of petroleum and any additional impacts from OCS exploration or production need to be equitably compensated.

### **Fisheries**

While Delaware applauds many of the proposed improvements to fisheries management (Chapter 19), there are a few recommendations that Delaware believes warrant more consideration. Primarily, our concern rests with the attempts to separate science from management and the subsequent lack of flexibility afforded the Regional Fishery Management Councils should the Science and Statistical Committees (SSC) be granted sole authority in determining allowable biological catch. The current structure of our Regional Council, the Mid-Atlantic Fishery Management Council, has been carefully developed over the past two decades. It is effectively managing fish stocks by relying on stock assessment data from the National Marine Fisheries Service (NMFS) and advice from the SSC, while leaving the final decision for determining allowable biological catch and quota specifications up to the Council. This integration of science and management allows the necessary flexibility for our regional council to best manage the resource.

Another concern is suspending fishing on a stock for which a Fishery Management Plan (FMP) has not yet been approved by the NMFS. This would constitute an unfair burden on those whose livelihood depends on the fishery. Fishermen should not be penalized for a delay in the approval process considering that they have no control over the review and implementation of the FMP. Interim measures can be formulated that will allow some level of fishing to occur until a final FMP is approved.

### **Habitat**


I applaud the emphasis on ecosystem management. Today, Delaware's coastal habitats are facing multiple threats including loss and degradation due to land development and poor local land-use planning. These impacts are largely seen on the land, but extend into the submerged habitats of our bays and ocean. From the introduction and proliferation of non-native invasive species to pollution and contamination, threats to Delaware's habitats take many forms. Delaware's marine resources are rich in species, genetic and ecosystem diversity and economic value. Marine ecosystems support many valuable recreational and commercial fish species. However, the conservation of habitat diversity in the ocean and bays, have been are even more neglected than on land.

While we have made many strides in protecting and restoring coastal habitats such as wetlands, the undersea habitat of our ocean and estuaries has received little attention. When establishing habitat conservation and restoration needs, more consideration must be given to benthic habitat in general. Due to difficulties in mapping and assessing these habitats, they are often overlooked. Yet these habitats are critical to the protection of multimillion-dollar fishery industries, the base for multimillion-dollar tourist and recreation industries, and the locations of largely unknown biological diversity. There is a critical need to identify the distribution of benthic habitat resources, assess the relative worth of services provided, and provide guidelines for conservation and restoration. Delaware is currently undertaking this type of effort, but there are no guidelines or coordinated efforts in place for working in adjacent states or federal waters. We can no longer ignore the need to protect these critical habitats simply because they are out of sight and out of mind.

Management tools for decision-makers to protect the state's marine biodiversity cost money. Such tools as biological inventories, research, monitoring, training and recruiting professionals, regulating threats to marine ecosystems and fisheries require a stable source of revenue. I encourage the Commission to allow states to set the agenda for addressing these needs based upon the financial resources available. We would like to know as much as possible about our ecosystems, but can't afford to do assessments everywhere before addressing the problems we are aware of now.

There are many actions that the President and Congress can take now to immediately implement some of the changes called for in the report. The organizational changes proposed in the report will take time and effort. They will also draw resources away from our shared goals. I urge you to focus on the no-regret actions now.

Thank you for the opportunity to comment. Delaware looks forward to working with our national partners in protecting our valuable coasts and oceans.

Sincerely,  
  
Ruth Ann Minner  
Governor

Cc: Secretary John A. Hughes, DNREC  
Sarah Cooksey, DNREC

Attachment

**THE STATE OF DELAWARE'S**  
**SPECIFIC COMMENTS ON THE**  
**PRELIMINARY REPORT OF THE U.S. COMMISSION ON OCEAN POLICY**  
**GOVERNORS' DRAFT, WASHINGTON, D.C., April 2004**

This document provides specific comments on recommendations that warrant special attention from Delaware's viewpoint. If a specific recommendation isn't addressed, it means we either supported it or felt it would not impact our state.

**PART I Our Oceans: A National Asset and PART II Blueprint for Change: A new National Ocean Policy Framework, Chapters 1 – 7**

The first three chapters (Recognizing Ocean Assets and Challenges, Understanding the Past to Shape a New National Ocean Policy and Setting the Nation's Sights) are primarily historical and background information. As such, we offer only one comment and one question.

Figure 1.3 is very difficult to read, and in the final printing hopefully will be sharper. "The Near Shore", defined as postal zip code areas that touch the shoreline of the oceans, Great Lakes, and major bays and estuaries, seems incorrect for Delaware.

Figure 3.1 has Delaware within the Northeast U.S. Large Marine Ecosystem. Since Delaware's coast and our stretch of the Atlantic Ocean is situated more or less in the middle of the Mid-Atlantic bight, which extends from Cape Cod to Cape Hatteras, how will the proposed Northeast U.S. Large Marine Ecosystem, which appears to exclude the Carolinas, impact our relationship with the existing political and biological structure?

Chapters four, five, six and seven (Enhancing Ocean Leadership and Coordination, Advancing a Regional Approach, Coordinating Management in Federal Waters and Strengthening the Federal Agency Structure) primarily address important changes needed at the national and regional level. Delaware's major comments on these larger organizational changes are included in the cover letter. We do offer the following comments and questions:

It is unclear how the Regions will report and work with the National Ocean Council and how state rights will be protected within the proposed framework.

Certainly, marine protected areas are important tools for ecosystem-based management. We want to make it clear that no marine protected area should

be established in or adjacent to state waters without the concurrence of affected states.

What is on the axis of Figure 7.1?

## **CHAPTER 8: Promoting Lifelong Ocean Education**

Strengthening ocean awareness and understanding are critical developing public opinion that the ocean is a national priority. The recommendations of this chapter are all necessary to impact this change in public opinion; however, the recommendations often do not recognize funding sources, appropriate partners, or the process for implementation at the state and local levels.

The State of Delaware strongly agrees with the following three recommendations:

- 8-6** Ocean.ED, working with state and local education authorities and the research community, should coordinate the development and adoption of ocean-related materials and examples that meet existing education standards.

In order to incorporate ocean science into K-12 learning it is imperative that existing and new ocean-related materials be correlated to education standards. Existing standard and supporting materials should be formally identified before proceeding with new materials.

- 8-8** Ocean.ED should promote partnerships among school districts, institutions of higher learning, aquariums, science centers, museums, and private laboratories to develop more opportunities for students to explore the marine environment, both through visual means and hands-on field, laboratory, and at-sea experiences. Ocean.ED should ensure that ocean-based educational programs and materials acknowledge cultural differences and other aspects of human diversity, resulting in programs that expose students and teachers from all cultures and backgrounds to ocean issues.

Partnerships among school districts, universities, marine science and education institutions, aquaria, science centers, museums, and private organizations are critical to the development of ocean education and awareness programs for both the K-12 community and lifelong learners. Incentives and financial support are critical to enhancing these partnerships.

- 8-16** Ocean.ED, working with other appropriate entities, should enhance existing and establish new mechanisms for developing and delivering relevant, accessible information and outreach programs to enhance community education.

This recommendation moves ocean science to the lifelong process referenced in the chapter title. When capturing the K-12 and collegiate audiences, only approximately 27% of the general public is engaged. Informal education institutions are often



challenged with balancing a variety of environmental topics with limited resources. Assistance from Ocean.ED would be beneficial to enhancing ocean sciences informal education.

The following additional comments and suggestions to modify the recommendations of Chapter 8 are offered:

Chapter 8 recommendations appear too national in the approach, especially as they relate to K-12 education. There is a noticeable omission of the Department of Education and the state and local education administrative entities. Funding is necessary to encourage and implement suggested K-12 programs and partnerships. Marine science educators must be engaged in the decision making process to determine exactly what must be known to be deemed “ocean literate” and to engage educators who write the standards to incorporate the appropriate inquiry based science education.

Chapter 8 does not mention the National Estuarine Research Reserve System as a partner in ocean education. In many states, including Delaware, coastal education, including ocean literacy, often is administered through the respective Reserve.

The State of Delaware has concerns that Chapter 8 has undercapitalized the effort required for the desired changes in ocean literacy. While the recommendations are on target, funding levels have not recognized the infusion of ocean science education throughout the pre-college sector as a new initiative and one that requires new money. The funding levels recommended are inadequate to impact the educational system in the United States.

## **CHAPTER 9: Managing Coasts and Their Watersheds**

**9-1** Congress should reauthorize the Coastal Zone Management Act (CZMA) to strengthen the planning and coordination capabilities of coastal states and enable them to incorporate a coastal watershed focus and more effectively manage growth. Amendments should include requirements for resource assessments, the development of measurable goals and performance measures, improved program evaluations, additional funding to adequately achieve the goals of the Act, incentives for good performance and disincentives for inaction, and expanded boundaries that include coastal watersheds.

We strongly agree with this recommendation and, as outlined in our cover letter, this action should be implemented now due to the proven track record of success of the CZMA.

The Federal CZMA should be reauthorized to strengthen planning and coordination. This action would help support our Livable Delaware initiative to control sprawl and better manage growth.

We also support the amendments to strengthen the act. These amendments encompass a huge effort, that will take many years and greatly increased funding to accomplish, but are needed improvements. The proposed amendments for “resource assessment, goals, and performance measures” would also help to re-invigorate Delaware’s efforts for Environmental Indicators for the Coastal Zone. The amendment for incentives/disincentives has promise, but needs more attention and detail to make sure that performance criterion is applicable to the real world.

Our experience in Delaware may also provide a useful argument to the national debate over extension of our coastal zone boundaries to include coastal watersheds. Delaware currently includes its entire State in our approved Coastal Management Program. This has reduced conflict and allowed for more holistic management. We believe that other States would find it easier to deliver on the ground results by boundary expansion, since many of the coastal problem arise from upstream stresses on the Coastal area.

**9-2** Congress should consolidate area-based coastal management programs in a strengthened National Oceanic and Atmospheric Administration (NOAA), capitalizing on the strengths of each program. At a minimum, this consolidation should include the Coastal Zone Management, National Estuarine Research Reserve System, and National Marine Sanctuary programs currently administered by NOAA and additional programs administered by other agencies: the Coastal Barrier Resources System; the National Estuary Program; and the U.S. Fish and Wildlife Service Coastal Program.

Insufficient information has been included to make any informed decision or to take a position on this recommendation.

Consolidation of various NOAA, EPA, and USFWS Coastal and Estuarine Programs under NOAA could significantly reduce redundancy and streamline management efforts. This will undoubtedly be difficult to accomplish, and is unclear if the end result would outweigh the cost and problems associated with such a massive reorganization. It may be that further attention to watershed, basin, state, and interstate mechanisms and federal support for funding these mechanisms will craft unified strategies focused on specific targets, standards and outcomes. This will likely yield better results than a federal reorganization.

At the State level, we have enjoyed a great deal of cooperation from the various federal agencies including NOAA, EPA, USGS, USFWS, and others. The recommendation is made in the context of "a strengthened National Oceanic and Atmospheric Administration (NOAA)." While there is certainly merit in this concept, the report doesn't provide enough information to evaluate whether this conceptual idea would truly provide any benefits if actually implemented. Also, if we are to truly accomplish a broad watershed or ecosystem approach, will NOAA’s mission be expanded to include specific focus on key issues that are currently addressed as the mission of other agencies without losing some level of expertise?

Clearly more information is needed to understand this recommendation. We would support strengthening of NOAA to better bring together and coordinate the good efforts of the other federal agencies with a strong focus on coastal and ocean issues.

- 9-3** The National Ocean Council should recommend changes to federal funding and infrastructure programs to discourage inappropriate growth in fragile or hazard-prone coastal areas and ensure consistency with national, regional, and state goals aimed at achieving economically and environmentally sustainable development.

We support changing federal funding policies to discourage inappropriate growth, as it will most directly address one of the primary stressors of coastal areas. However, it is critical that each State define "inappropriate" growth. Delaware does this through our Livable Delaware Initiative to develop State Strategies for Growth (another part of Livable Delaware). This plan considers our critical coastal resources and other green infrastructure as well as areas where we support growth. This strategy will be incorporated into Delaware's Approved Coastal Management Program by reference and should not be subordinated to any federal definition for appropriate growth. The approved program also outlines areas of special concern due to their importance to the State's economy, such as the need to support the Port of Wilmington, where a difficult balance between coastal resource protection and investment must occur without undue hardship on our maritime infrastructure.

- 9-4** Congress should amend the Coastal Zone Management Act, the Clean Water Act, and other federal laws where appropriate, to provide better financial, technical, and institutional support for watershed initiatives. Amendments should include appropriate incentives and flexibility for local variability. The National Ocean Council should develop guidance concerning the purposes, structures, stakeholder composition, and performance of such initiatives.

This recommendation seeks to address coastal and natural resources issues on a watershed scale. This has long been recognized as an important approach in Delaware. We even believe it should be taken a step further to have an ecosystem wide approach that includes watershed planning. This will better integrate economic goals, habitat goals, green infrastructure goals, and water quality goals from a "carrying capacity" perspective.

While supported, more detail on what the guidance proposed will include would be helpful. If this recommendation provides flexibility that allows increased interagency coordination and cooperation for regional resource protection initiatives it will be helpful. If it simply adds new guidance that interferes with flexibility for local variability, it may deter better regional initiatives. To be successful, those working in the specific region must be an integral part of the development and/or selected use of any National guidance to ensure it meets the needs of the specific geographic area.

## **CHAPTER 10: Guarding People and Property Against Natural Hazards**

- 10-1** The National Ocean Council should review and recommend changes to the U.S. Army Corps of Engineers' Civil Works Program to ensure valid, peer-reviewed cost-benefit analyses of coastal projects, provide greater transparency to the public, enforce requirements for mitigating the impacts of coastal projects, and coordinate such projects with broader coastal planning efforts.

More valid, peer reviewed cost benefit analysis of coastal projects by USACE is vital to building public trust and confidence in government. Not doing so could create more opposition to good projects or promote wasteful spending on unnecessary projects.

Chapter 10, page 122, cites correcting the National Flood Insurance Program rate structure as a way to discourage building in high risk areas. Yet recommendation 10-1, which deals with the USACE civil works projects, fails to mention the larger potential that changing the way projects are funded could have in discouraging development in high risk areas. According to a study completed by the University of Delaware, shore protection projects are a powerful influence in coastal land prices, likely far more so than the NFIP. This recommendation may have far more influence on coastal development in high hazard areas than changes to the National Flood Insurance Program outlined in recommendation 10-3.

- 10-2** The National Ocean Council should establish a task force of appropriate federal agencies and representatives from state and local governments, with the Federal Emergency Management Agency in the lead, to improve the collection and usability of hazards-related data.

Better management and sharing of coastal hazards data can improve emergency planning. Due to the regional nature of coastal hazards, a Federal agency with adequate funding and coordination ability will be a valuable asset to improve planning.

- 10-3** The National Ocean Council should recommend changes in the National Flood Insurance Program (NFIP) to reduce incentives for development in high-hazard areas.

While we agree that changes to the National Flood Insurance Program to provide a disincentive to development in high hazard areas is needed, more information is needed on the specific examples provided.

The goals of this recommendation are to establish a "clear" disincentive for building in high risk areas by requiring actuarially sound rates for insurance. Actuarially sound rates would not be a disincentive; it would be a neutral policy. It is unclear this specific action will actually help. Additionally, this section mentions assistance in retrofitting older structures. Such grants or other forms of assistance may actually encourage continued occupation of high risk flood hazard areas.

We recommend that a more detailed evaluation be conducted to identify specific changes to the NFIP that would clearly provide disincentives from either building or staying in high hazard areas. Until these are defined, this effort may not be accomplish its stated objectives.

- 10-4** The National Ocean Council (NOC) should encourage Congress to increase financial and technical assistance to state and local entities for developing hazards mitigation plans consistent with requirements of the Federal Emergency Management Agency (FEMA). The NOC should also identify opportunities for conditioning federal hazards-related financial and infrastructure support on completion of FEMA-approved state and local hazards mitigation plans.

If the National Ocean Council successfully convinces Congress to increase financial and technical assistance for developing hazard mitigation plans, we could reduce problems such as those that occurred at Glenville, Little Mill Creek, and routinely along our Atlantic Coast. This saves lives and millions of dollars.

We encourage improved coordination and cooperation between FEMA and the Corps in developing hazard reduction plans for beachfront communities, and the maintenance of hazard reduction projects.

## **CHAPTER 11: Conserving and Restoring Coastal Habitat**

- 11-1** Congress should amend the Coastal Zone Management Act to authorize and provide sufficient funding for a dedicated coastal and estuarine land conservation program.

We strongly agree with this recommendation. The addition of a CZMA amendment funding Habitat Conservation will advance Delaware's Land Protection Program goals. Furthermore, federal funds designated for coastal and estuarine land conservation will complement, and become match to, land acquisitions approved by the State's Open Space Council.

- 11-2** The National Ocean Council should develop national goals for ocean and coastal habitat conservation and restoration efforts and should ensure coordination among all related federal activities. The regional ocean councils and regional ocean information programs should determine habitat conservation and restoration needs and set regional goals and priorities that are consistent with the national goals.

Delaware agrees with this recommendation. We also hope that in the setting of habitat conservation and restoration needs, more consideration will be given to benthic habitat in general. Due to difficulties in mapping and assessing these habitats, they are often overlooked. There is a need to identify the distribution of benthic habitat resources, assess the relative worth of services provided, and provide guidelines for conservation and restoration. Delaware is currently undertaking this type of effort, but there are not

guidelines or coordination efforts in place for working with adjacent state or federal waters.

- 11-3** Congress should amend relevant legislation to allow federal agencies greater discretion in using a portion of habitat conservation and restoration funds for related assessments, monitoring, research, and education.

We disagree with this recommendation. While we agree with the need for assessment, monitoring, research and education associated with habitat conservation and restoration, it must not come at the cost of on the ground habitat conservation work.

- 11-4** The National Ocean Council should coordinate development of a comprehensive wetlands protection program that is linked to coastal habitat and watershed management efforts and should make specific recommendations for the integration of the Clean Water Act Section 404 wetlands permitting process into that broader management approach.

A more comprehensive wetland protection program linked to landscape ecology is needed to streamline the cumbersome existing federal program. This would be extremely useful and welcomed in Delaware.

## **CHAPTER 12: Managing Sediment and Shorelines**

- 12-1** The National Ocean Council should develop a national strategy for managing sediment on a regional basis, taking into account both economic and ecosystem needs. The strategy should: consider adverse impacts on marine environments due to agriculture, dredging, pollutant discharges, and other activities that affect sediment flows or quality; ensure involvement of port managers, coastal planners, and other stakeholders in watershed planning; and require that ecosystem-based management principles serve as the foundation for permitting processes for activities that affect sediment.

We strongly agree this recommendation. National Sediment strategy built on regional bases is needed. Without this, States may find themselves competing for future sand resources at an increased fiscal cost and higher environmental cost.

Some commenters felt that a major foundation point that should also be made in this chapter with respect to managing sediments, and in particular, contaminated sediments. This additional point is that contaminants associated with sediments in the coastal and ocean environments, with few exceptions, originate from land-based sources.

The report should make a stronger connection between known problems in the coastal and ocean environments and their sources. In particular, the report should include a recommendation to more fully evaluate the connection between on-land sources of pollution and coastal/oceanic impacts.

- 12-3** The National Dredging Team and regional dredging teams should begin to implement more ecosystem-based approaches. The National Dredging Team should implement the recommendations of the 1994 report to the Secretary of Transportation, *The Dredging Process in the United States: An Action Plan for Improvement*, with a priority of developing and implementing a streamlined permitting process. Regional dredging teams, working with regional ocean councils, should establish sediment management programs that include watersheds, coastal areas, and the nation's shoreline.

We disagree with this recommendation. The National Dredging Team and Regional Dredging Team approach was ineffective. The Port of Wilmington has some reservations. They feel that addressing dredging and dredge disposal issues on regional and/or ecosystem basis seems somewhat idealistic and impractical. When one considers the various competing commercial/economic interests within a region and/or ecosystem, it is most likely going to be very difficult to foster cooperation from and among the various private entities affected.

### **CHAPTER 13: Supporting Marine Commerce and Transportation**

- 13-3** The U.S. Department of Transportation should draft a new national freight transportation strategy to support continued growth of the nation's economy and international and domestic trade. This strategy should improve the links between the marine transportation system and other components of the transportation infrastructure, including highways, railways, and airports. Based on the new strategy, investments should be directed toward planning and implementation of intermodal projects of national significance.

This is an opportunity to build and improve the Port of Wilmington and other freight/cargo/passenger points along the coast. The Port feels this would have a positive effect on I-95 congestion and improve railroad access.

Concerns focus on the need for State involvement in the planning process. States must be a part of the planning process or run the risk of having improvements that help the ports but hurt surrounding communities – unwanted roads, rail, and traffic.

- 13-4** The U.S. Department of Transportation should conduct a thorough analysis and assessment of the potential societal and economic benefits of increased short sea shipping.

We strongly agree with this recommendation. This might lead to increased vessel activity along waterways and strengthen local and regional economies. This benefits professional mariners and longshoremen. This may also lead to decreased roadway congestion (locally and regionally).

- 13-5** The U.S. Department of Transportation (DOT), working with other appropriate entities, should establish a national data collection, research, and analysis program

to provide a comprehensive picture of freight flows in the United States and to enhance the performance of the nation's intermodal transportation system. DOT should periodically assess and prioritize the nation's future needs for ports and intermodal transportation capacity to fulfill the needs of the Nation's expected future growth in marine commerce.

The freight information collection program should include:

- Economic models that project trade and traffic growth and determine the impacts of growth on U.S. ports and waterways and the inland infrastructures connected to them
- Models and guides to identify bottlenecks and capacity shortfalls
- Consistent, nationally accepted definitions and protocols for measuring capacity
- Innovative trade and transportation data collection technology and research to fill critical data gaps
- Assessment of the social and economic ramifications of marine transportation investments as compared to other transportation investments

It would provide a source of valuable research data, a potential source of research money for state agencies, private sector, and academia, and would prove invaluable as a resource for state planning efforts. Again, the state would want to be involved to have a say in methodology and focus.

## **CHAPTER 14: Addressing Coastal Water Pollution**

**14-1** The U.S. Environmental Protection Agency (EPA) and states should require advanced nutrient removal for wastewater treatment plant discharges into nutrient-impaired waters. Additionally, EPA should support a vigorous effort to characterize the extent of the impact of household and industrial chemicals in wastewater.

In particular, EPA should:

- support research and demonstration projects for biological nutrient removal and other innovative advanced treatment processes to eliminate nitrogen and phosphorus from wastewater discharges.
- ensure that information about innovative advanced treatment processes and technologies is widely disseminated.
- support development of technologies to reduce concentrations of pharmaceuticals, personal care product ingredients, and other biologically active contaminants in wastewater treatment plant discharges.

**14-2** The U.S. Environmental Protection Agency (EPA) and states should increase technical and financial assistance to help communities improve the permitting, design, installation, operation, and maintenance of septic systems and other on-site treatment facilities. State and local governments, with assistance from EPA, should adopt more effective building codes and zoning ordinances for septic



systems and should improve public education about the benefits of regular maintenance.

Maintenance of septic systems should include regular inspections to see if they are failing. However, even ‘working’ septic systems add pollutants to coastal waters. Septic systems in areas with nutrient impaired waters should have additional nutrient removal technology added. Ensuring sufficient funding available to assist in the repair or replacement of failing systems is needed. Also, this recommendation does not seem to recognize wastewater spray irrigations as an alternative that is often a better long-term way to address nutrients. These systems use crops to sequester nutrients before they enter surface or groundwater systems.

- 14–3** Where necessary to meet water quality standards, states should issue regulatory controls on concentrated animal feeding operations in addition to those required by the federal government. The U.S. Environmental Protection Agency and the U.S. Department of Agriculture should fund research on removal of nutrients from animal wastes and should develop improved best management practices that retain animal waste-derived nutrients and pathogens on agricultural lands.

The State of Delaware is currently working closely with the U.S. Environmental Protection Agency and U.S. Department of Agriculture, Natural Resources Conservation Service to develop their General CAFO Permit. During this process, the State of Delaware is including criteria they feel is needed in Delaware and agree that there should be funding for research on removal of nutrients from animal waste.

- 14–4** The U.S. Environmental Protection Agency, working with state and local governments, should develop a prioritized, comprehensive plan for long-term funding of the nation’s current aging and inadequate wastewater and drinking water infrastructure, anticipating demands for increased capacity and more stringent treatment in the coming decades. To implement this plan, Congress should fund the State Revolving Fund Program at or above historic levels.

Additional funding for the Clean Water State Revolving Fund Program (CWSRF) is essential to eliminating sources of pollution to Delaware's waters. Delaware has identified \$250 million in projects that need funding. These projects are critical to eliminating both point and non-point sources of pollution from Delaware's waters. Any funding of the CWSRF above historic levels will only hasten the cleanup of Delaware's waters. In addition, it is important to note that the Safe Drinking Water Act SRF is an important fund for infrastructures improvement and pollution control activities for both point and non-point sources. The report could be strengthened by including a description of this important program.

- 14–5** The U.S. Environmental Protection Agency and states should experiment with tradable credits for nutrients and sediments as a water pollution management tool and evaluate the ongoing effectiveness of such programs in reducing water pollution.

While we support the concept of pollutant trading programs, the specific details of the pollutant and the program are the key to whether or not a program will be successful. A sufficient overall reduction in the pollutant loading and its impact on the environment must be ensured in the design of the program.

**14-6** The U.S. Environmental Protection Agency and states should modernize the National Pollutant Discharge Elimination System's information management system and strengthen the program's enforcement to achieve greater compliance with permits and develop an effective ongoing monitoring program.

Delaware has an effective monitoring program and agrees that the National Pollutant Discharge Elimination System's information management system needs to be modernized.

**14-7** The U.S. Department of Agriculture (USDA) should align its conservation programs and funding with other programs aimed at reducing nonpoint source pollution, such as those of the U.S. Environmental Protection Agency and the National Oceanic and Atmospheric Administration.

In particular, USDA's Natural Resources Conservation Service should:

- Require that its state conservationists coordinate with representatives of federal and state water quality agencies and state coastal management agencies, and participate in watershed and coastal management planning processes, to ensure that funding for agricultural conservation programs complements and advances other federal and state plans.
- Provide enhanced technical assistance in the field to meet the demands of growing agricultural conservation programs.

The State of Delaware and USDA, NRCS design conservation programs through a locally-led process using the State Technical Committee. Partners are encouraged to actively participate as members of the State Technical Committee and coordinate to achieve locally defined conservation concerns. USDA should align its conservation programs and funding with other programs at reducing nonpoint source pollution

We have concerns regarding the following three recommendations (14-8 through 14-10):

**14-8** The National Ocean Council (NOC) should establish significant reduction of nonpoint source pollution in all impaired coastal watersheds as a national goal, and set specific, measurable objectives focused on meeting human health- and ecosystem-based water quality standards. The NOC should ensure that all federal nonpoint source pollution programs are coordinated to meet those objectives.

The NOC should also ensure that "all federal nonpoint source pollution programs" are funded at a sufficient level to undertake such a daunting task. Reductions in nonpoint

source pollution are important goals for our State. Federal programs should be designed with appropriate flexibility so that States and local governmental entities can coordinate efforts on the ground to achieve water quality standards. Regional pollutant standards (nutrient standards) could be helpful in this process. Nationally, the achievement of water quality standards should be a rallying point. However, coordination of actual BMP implementation is best achieved at a more local level.

Effective nonpoint source control efforts require a tremendous amount of assessment and priority setting analyses in order to efficiently utilize extremely limited funding. Any additional funding made available for nonpoint source controls should go to those jurisdictions which have accomplished the analyses and are prepared to target those practices which will achieve the necessary reductions. Jurisdictions must be prepared to adopt regulations when necessary. We agree that the National Ocean Council should establish significant reduction of nonpoint source pollution in all impaired coastal watersheds as a national goal. They should work in concert with other federal, state, and local agencies. These goals should be specific and measurable, but also realistic and attainable by our citizens.

- 14-9** To improve and strengthen federal efforts to address nonpoint source pollution, Congress should amend the Clean Water Act to merge the National Oceanic and Atmospheric Administration's enforceable nonpoint source pollution program, created under Section 6217 of the Coastal Zone Act Reauthorization Amendments, into the U.S. Environmental Protection Agency's incentive-based program, created under Section 319 of the Clean Water Act. To support these efforts, Congress should provide adequate federal resources to enable states to implement best management practices.

It is unclear from this recommendation whether the Commission supports one nonpoint source program that uses voluntary efforts such as the U.S. Environmental Protection Agency's incentive-based program, created under Section 319 of the Clean Water Act to correct the problem or one program that is enforceable as the Section 6217 of the Coastal Zone Act Reauthorization was meant to be.

- 14-10** Congress should provide authority under the Clean Water Act and other applicable laws for federal agencies to impose financial disincentives and establish enforceable management measures to ensure action if a state does not make meaningful progress toward meeting water quality standards on its own.

While this recommendation does make sense in addressing coastal water quality, financial disincentives has not worked in the past well. States may lose flexibility needed to work with the diverse communities involved in activities leading to nonpoint source pollution. At times, more federal oversight and enforcement could negatively impact progress that has been made.

- 14-11** State and local governments should revise their codes and ordinances to require land use planning and decision-making to carefully consider the individual and

cumulative impacts of development on water quality, including effects on stormwater runoff. The U.S. Environmental Protection Agency and other appropriate entities should increase outreach programs that provide local land use decision makers with the knowledge and tools needed to make sound land use decisions that protect coastal water quality.

Delaware strongly agrees with this recommendation. Suburban sprawl has become the prevalent development pattern in Delaware. Sprawl contributes to a loss of 3,500 acres of farmland per year, aggravates traffic congestion, destroys natural habitat, contributes to groundwater pollution and increases impervious surfaces. The cumulative impact has been degradation of the state's water quality, biodiversity and local community character. Delaware has adopted watershed management programs to address issues of nonpoint pollution and Governor Minner's Livable Delaware Program is developing statewide policies to address sprawl. Delaware NEMO (Nonpoint Education for Municipal Officials) has initiated a partnership of university, non-profit organizations and state and local governments to develop educational programs to build on these regulatory and policy efforts.

**14-12** The U.S. Environmental Protection Agency, working with state and local governments, should ensure that stormwater management programs are based on a comprehensive approach that includes: codes or ordinances requiring best management practices; increased enforcement of legal requirements; monitoring to determine whether goals and state water quality standards are being met and to identify ongoing problems; an adaptive management approach to ensure that efforts are effective and that best management practices are modified as needed; improved public education; and funding and personnel sufficient to implement and enforce stormwater management programs.

Professional training should be emphasized as a component of a comprehensive approach for stormwater management.

**14-13** The National Ocean Council and regional ocean councils should strengthen the ability of collaborative watershed groups to address problems associated with nonpoint source pollution by developing and implementing strategies to provide them with adequate technical, institutional, and financial support.

**14-14** The U.S. Environmental Protection Agency, states, and watershed groups should explore regional approaches for managing atmospheric deposition, particularly when it affects water bodies in states far from the source.

In some areas, localized sources are also contributing to the problem. These same groups should work towards understanding the localized issues as well through providing funding for research, monitoring, and pilot programs to reduce emission from local sources. In addition, the federal government needs to include international sources, particularly for very fine particles, including mercury.

## **CHAPTER 15: Creating a National Water Quality Monitoring Network**

We have concerns over the following recommendations (15-1 through 15-4):

- 15-1** The National Oceanic and Atmospheric Administration, U.S. Geological Survey, and U.S. Environmental Protection Agency, working with other appropriate entities, should develop a national water quality monitoring network that coordinates existing and planned monitoring efforts, including monitoring of atmospheric deposition. The network should include a federally funded backbone of critical stations and measurements needed to assess long-term water quality trends and conditions.
- 15-2** The National Oceanic and Atmospheric Administration should ensure that the national water quality monitoring network includes adequate coverage in both coastal areas and the upland areas that affect them, and that the network is linked to the Integrated Ocean Observing System, to be incorporated eventually into a comprehensive Earth observing system.
- 15-3** The National Oceanic and Atmospheric Administration, U.S. Geological Survey, and U.S. Environmental Protection Agency, working with other appropriate entities, should ensure that the national water quality monitoring network includes the following elements: clearly defined goals that fulfill user needs and measure management success; a core set of variables to be measured, with regional flexibility to measure additional variables where needed; an overall system design that determines where, how, and when to monitor and includes a mix of time and pace scales, probabilistic and fixed stations, and stressor- and effects-oriented measurements; technical coordination that establishes standard procedures and techniques; and periodic review of the monitoring network, with modifications as necessary.
- 15-4** The National Oceanic and Atmospheric Administration, U.S. Geological Survey, and U.S. Environmental Protection Agency, working with other appropriate entities, should ensure that water quality monitoring data are translated into timely and useful information products that are easily accessible to the public and linked to output from the Integrated Ocean Observing System.

Given the need to maintain consistent monitoring efforts in order to track water quality status and trends, and acknowledging the inconsistencies between state programs, it is important to have a strong federal monitoring protocol. While national monitoring is needed, better coordination and financial support of state efforts are crucial and any national effort should exist to complement and support state required monitoring.

## **CHAPTER 16: Limiting Vessel Pollution and Improving Vessel Safety**

- 16-6** The U.S. Environmental Protection Agency should revise the Clean Water Act marine sanitation device (MSD) regulations to require that new MSDs meet significantly more stringent pathogen-reduction standards. The U.S. Coast Guard should require manufacturers to provide warranties that MSDs will meet these new standards for a specified time period.

We strongly agree with this recommendation. The Delaware Bay and River, the Inland Bays, and Delaware's Atlantic coast are areas of high boat traffic, both recreational and commercial. Stricter control standards for pathogen reduction could greatly reduce the environmental and health risks associated with the discharge of treated sewage from these devices.

- 16-9** The U.S. Environmental Protection Agency, working with other appropriate entities, should investigate and develop incentive-based measures that result in measurable voluntary reductions in vessel air emissions.

Delaware wants to make it clear that in some instances, controls may be the only means to make effective reductions.

- 16-11** Congress should create an incentive program for boat owners to install or use less polluting engines in recreational boats.

We strongly agree with this recommendation. The Inland Bays, an ecologically sensitive area, sees the highest concentration of recreational boaters each year in Delaware. Incentive programs to install or use less polluting engines, which would reduce the total hydrocarbon emissions that contribute to ozone formation, can result in significant reductions in air and noise pollution in these as well as other areas in the state.

- 16-12** The U.S. Department of Transportation, U.S. Coast Guard, U.S. Environmental Protection Agency, and Minerals Management Service should conduct a risk-based analysis of all oil transportation systems, identify and prioritize areas of greatest risk, and develop a comprehensive plan for long-term action to reduce the threat of significant spills.

We strongly agree with this recommendation. The Port of Wilmington is a major port and distribution center for the liquid bulk petroleum products that are carried up the Delaware River by tanker vessels. A petroleum spill from these vessels in the Delaware River or its adjacent waters could result in serious environmental and human health risks. A long-term plan to reduce these threats could reduce the risks of such occurrence within Delaware's coastal waters.

In addition, strong consideration should be made for federal controls on lightering operations. As an example, the lightering that occurs in the Delaware Bay for vessels destined for the various refineries is the largest source of volatile organic compounds in

the state, and this does impact water quality. In 1994, EPA excluded lightering emissions from the scope of the Marine Vessel Unloading Maximum Available Control Technology (MACT) guideline but indicated that "...the Agency may consider addressing lightering operations in a separate source category." (59 CFR 25004 May 13, 1994, Subpart Y proposed rule). EPA should be reminded that lightering is occurring nationally at various levels in Boston, New York, and along the Gulf and West Coast, as well as in Delaware. The International Maritime Organization should be fully engaged in the global aspects of this concern in order to reduce ozone-related and air toxics emission in other highly polluted areas that have issues and provide much needed compatibility of lightering procedure, plans, equipment and control systems.

**16-13** The U.S. Coast Guard, working with the spill response community, should develop comprehensive policy guidance and contingency plans for places of refuge in the United States. The plans should clearly delineate decision-making authorities and responsibilities and provide for a coordinated and timely assessment and response to vessels seeking a place of refuge.

The Port of Wilmington is a major port and distribution center for liquid bulk petroleum products which are carried up the Delaware River by tanker vessels. A petroleum spill from these vessels in the Delaware River or its adjacent waters could result in serious environmental and human health risks. Established plans to aid vessels in need of refuge could reduce the risks of an environmental disaster within Delaware's coastal waters.

## **CHAPTER 17: Preventing the Spread of Invasive Species**

**17-3** The National Ocean Council, working with the Aquatic Nuisance Species Task Force and the National Invasive Species Council, should coordinate public education and outreach efforts on aquatic invasive species, with the aim of increasing public awareness about the importance of prevention.

We strongly agree with this recommendation. Delaware has vast water-based resources which are enjoyed by both residents and visitors to the State, as well as commercial fisherman. The introduction and spread of invasive species could result in great economic and environmental impacts for Delaware. Increasing public awareness would help control the spread of invasives as well as potentially aiding in the detection of species and notification of authorities.

The State of Delaware has concerns over the following two recommendations (17-4 & 17-7):

**17-4** The National Invasive Species Council and the Aquatic Nuisance Species Task Force, working with other appropriate entities, should establish a national plan for early detection of invasive species and a system for prompt notification and rapid response. Congress should provide adequate funding to support the development and implementation of this national plan.

- 17-7** The National Ocean Council should coordinate the development and implementation of an interagency plan for research and monitoring to understand and prevent aquatic species invasions. Congress should increase funding in this area to improve management decisions and avoid future economic losses.

Increased funding for the research, monitoring, and early detection of invasive species is important for controlling the introduction and spread of invasive species. These two efforts should be funded jointly to maximize the efficiency of both aspects of the management of invasive species.

## **CHAPTER 18: Reducing Marine Debris**

- 18-2** The National Ocean Council should re-establish an interagency marine debris committee, co-chaired by the U.S. Environmental Protection Agency and National Oceanic and Atmospheric Administration. The committee should work to expand and better coordinate national and international marine debris efforts, including: public outreach and education; partnerships with local government, community groups, and industry; monitoring and identification; and research.

We disagree with this recommendation. Marine debris management falls directly in line with NOAA's mission and management responsibilities. Creating an interagency marine debris committee may hinder the efforts of the agency with the primary responsibilities for management and implementation of marine debris control program.

## **CHAPTER 19: Achieving Sustainable Fisheries**

We disagree with following recommendations (19-1 through 19-3 & 19-5 through 19-6):

- 19-1** Congress should amend the Magnuson–Stevens Fishery Conservation and Management Act and related statutes to require Regional Fishery Management Councils (RFMCs) and interstate fisheries commissions to rely on their Scientific and Statistical Committees (SSCs), incorporating SSC findings and advice into the decision-making process. In keeping with this stronger role, SSC members should meet more stringent scientific and conflict of interest requirements, and receive compensation.

The State of Delaware is a member of the Mid-Atlantic Fishery Management Council (MAFMC). Over the past decade, the MAFMC, as well as the New England Fishery Management Council have developed an effective system for managing fish stocks utilizing the best scientific data available. The two Councils depend on the stock assessment information provided by the National Marine Fisheries Service, Northeast Fisheries Science Center for the technical data needed to manage fish stocks. The Science Center's staff specializes in the collection and analysis of data directly used in analytical stock assessments and is, by far, the most qualified group in the Northeast to handle this task. In contrast, the SSCs are made up of a diverse group of state and federal scientists that cover a wide variety of disciplines including fisheries economics and



anthropology which provide socioeconomic background needed as part of the fishery management process. By combining the input on stock assessments provided by the Science Center staff with the socioeconomic expertise of the SSC, both Council's have developed a system that provides the broadest perspective of expertise available for fisheries management. The Mid-Atlantic Fisheries Management Council (MAFMC) has taken this process even further by establishing Species Monitoring Committees that combine expertise from federal and state scientists to focus on a single species. Currently, the most knowledgeable and experienced individuals for a given species meet annually to review stock assessment updates and develop recommendations to the MAFMC prior to all quota setting meetings.

As proposed in Recommendation 19-1, the sole use of a Regional Fisheries Management Council's (RFMC) Science and Statistical Committee (SSC) to generate data to manage fish stocks may not be the most effective approach for all the RFMCs. Any requirement that solely requires the use of the SSC as a data input source is ill-advised especially in those situations where a successful system has already been developed, such as the approach described above currently utilized by the MAFMC.

**19-2** Scientific and Statistical Committees (SSCs) should be required to supply Regional Fishery Management Councils (RFMCs) with the scientific information necessary to make fishery management decisions. Such information could include reports on stock status and health, socioeconomic impacts of management measures, sustainability of fishing practices, and habitat status. In particular, the SSCs should determine allowable biological catch based on the best scientific information available to them.

The SSC should not have the responsibility for determining the allowable biological catch. The RFMCs should continue to be responsible for formulating the recommendation to NMFS for allowable catch. The RFMC members must follow the National Standards, as defined in the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), to guide them in deliberations that ultimately lead to a recommendation on allowable biological catch. Local knowledge and expertise of RFMC members are important aspects of this process and should continue to be utilized in establishing allowable biological catch.

**19-3** Each Regional Fishery Management Council should be required to set harvest limits at or below the allowable biological catch determined by its Scientific and Statistical Committee. The councils should begin immediately to follow this practice, which need to be codified at the next opportunity in amendments to the Magnuson-Stevens Fishery Conservation and Management Act.

The Science and Statistical Committees should not have total responsibility for establishing allowable biological catch. This decision should continue to be the Regional Fishery Management Council's responsibility. Councils are required to follow the national standard mandates in MSFCMA in establishing allowable biological catch.

**19-5** Each Regional Fishery Management Council should set a deadline for its Scientific and Statistical Committee (SSC) to determine allowable biological catch. If the SSC does not meet that deadline, the National Marine Fisheries Service Regional Science Director should set the allowable biological catch for that fishery.

Establishing biological catch recommendations should remain the responsibility of the Council and not be transferred to the SSC. If the Councils are unable to formulate a recommendation, in a timely manner, the Regional Administrator of NMFS will assume responsibility for the process. This is essentially how the current system operates and it should remain in place.

**19-6** Once allowable biological catch is determined, whether by the Scientific and Statistical Committee or the National Marine Fisheries Service (NMFS) Regional Science Director, the Regional Fishery Management Council should propose a fishery management plan in time for adequate review and approval by NMFS. If the plan is not presented in a timely fashion, all fishing on that stock should be suspended until NMFS can review the adequacy of the management plan.

It is unreasonable to specify that all fishing should terminate on a species until a fishery management plan is approved by NMFS. In general, some level of fishing can occur on most fish stocks without causing any adverse impact. Therefore, it would be unfair to those individuals whose livelihood depends on a fishery to be denied access as a result of a delay in the bureaucratic process for developing an FMP. Interim measures can be formulated that will allow some level of fishing to occur until a final FMP is approved.

**19-10** Congress should develop new statutory authority, similar to the Atlantic Coastal Fisheries Cooperative Management Act, to support and empower the Gulf States and Pacific States Fisheries Management Commissions. All interstate management plans should adhere to the national standards in the Magnuson-Stevens Fishery Conservation and Management Act and the federal guidelines implementing these standards. States should participate in guideline development to ensure they are relevant to interstate plans.

The concept of the Gulf States and Pacific States Fisheries Management Commissions being empowered with fisheries management authority similar to the authority granted the Atlantic States Marine Fisheries Commission (ASMFC) should be pursued. The second part of this recommendation, which suggests that all interstate management plans should adhere to the national standards under MSFCMA, is ill-advised and would remove the flexibility that the states currently have for developing regional fishery management plans (FMPs). Experience has shown that ASMFC can develop more flexible rebuilding and fishing rate reduction schedules than what is possible under the Federal National Standards requirements. Flexibility and timeliness are two important aspects of FMP development that need to remain available to fishery managers, especially for interstate management programs.

- 19–12** Congress should amend the Magnuson–Stevens Fishery Conservation and Management Act to require governors to submit a broad slate of candidates for each vacancy of an appointed Regional Fishery Management Council seat. The slate should include at least two representatives each from the commercial fishing industry, the recreational fishing sector, and the general public.

The State of Delaware has had difficulty in the past finding three applicants that are required for consideration under the current council candidate process. It is difficult to find qualified people that have the extensive time available to devote to fishery management issues. As such, under this recommendation each state would have to submit six names rather than three and experience has shown that this will be extremely difficult if not impossible.

- 19–16** Congress should repeal the Fisheries Finance Program (formerly the Fishing Vessel Obligation Guarantee Program), the Capital Construction Fund, and other programs that encourage overcapitalization in fisheries. The National Oceanic and Atmospheric Administration (NOAA) should implement programs to permanently reduce fishing capacity to sustainable levels.

The State of Delaware agrees that Congress should repeal the Fisheries Finance Program to reduce overcapitalization in fisheries. However, NOAA should not be involved in expensive vessel buy-back programs. The focus instead should be on rebuilding stocks by controlling harvest levels while allowing individual fishermen to decide on whether or not to remain in the fishery.

- 19–21** The National Marine Fisheries Service (NMFS) should change the designation of essential fish habitat from a species-by-species to a multispecies approach and, ultimately, to an ecosystem-based approach. The approach should draw upon existing efforts to identify important habitats and locate optimum-sized areas to protect vulnerable life-history stages of commercially important species. NMFS should work with other management entities to protect essential fish habitat when such areas fall outside their jurisdiction.

Before NMFS changes any designation of essential fish habitat, more data is needed to assist in determining which areas are essential for which species. Current data bases are inadequate for this decision making process. The Regional Fishery Management Councils should adopt an area or ecosystem based approach as soon as appropriate information is available.

- 19–22** The National Marine Fisheries Service (NMFS) and Regional Fishery Management Councils should develop regional bycatch reduction plans that address broad ecosystem impacts of bycatch. Implementation of these plans will require NMFS to expand current efforts to collect data on bycatch, not only of commercially important species, but on all species captured by commercial and recreational fishermen. The selective use of observers should remain an important component of these efforts.

The State of Delaware supports this recommendation since it specifies that NMFS will provide additional data on bycatch before the Councils are required to develop regional reduction plans. Currently, the data needed to develop these plans does not exist. Observer coverage is absolutely necessary for adequate data collection and is critical in any effort to reduce bycatch. Additionally, gear specifications to reduce bycatch should be required. Examples of this include requiring circle hooks for certain species when using natural bait and mandating that constantly tended drift nets be used rather than anchored gill nets.

## **CHAPTER 20: Protecting Marine Mammals and Endangered Marine Species**

**20-1** Congress should amend the Marine Mammal Protection Act to require the Marine Mammal Commission to coordinate with all the relevant federal agencies through the National Ocean Council (NOC) while remaining independent. The NOC should consider whether there is a need for similar oversight bodies for other marine animals whose populations are at risk.

Having an oversight body pertaining to federal agencies is an important recommendation. However, it would seem that the Marine Mammal Commission is already responsible for coordinating with all federal agencies pertaining to marine mammal policy. Requiring the independent MMC to function through an appointed government agency like the National Ocean Council may dilute the effectiveness of the MMC.

## **CHAPTER 21: Preserving Coral Reefs and Other Coral Communities**

Since no coral reefs are found off our coasts, the State of Delaware did not comment on Chapter 21.

## **CHAPTER 22: Setting a Course for Sustainable Marine Aquaculture**

**22-2** The National Oceanic and Atmospheric Administration's new Office of Sustainable Marine Aquaculture should be responsible for developing a comprehensive, environmentally-sound permitting, leasing, and regulatory program for marine aquaculture.

A cautious approach should be taken in permitting off shore facilities due to the potential of introducing invasive species, potential impacts from waste, drugs, and chemicals, and possible introduction of genetically altered species. States should have major input in developing the regulatory program and States' objections and/or comments should weigh heavily in the permitting process. The marine aquaculture section identifies the need to be able to lease off-shore waters to provide "exclusive access" to private enterprise as a necessity to foster development of the industry thus excluding public use. Many Delaware citizens, especially recreational fishermen would criticize and oppose any movement to ban public access of marine waters.

- 22-4** The United States should work with the United Nations Food and Agriculture Organization to encourage and facilitate worldwide adherence to the aquaculture provisions of the Code of Conduct for Responsible Fisheries.

The continued growing US demand for high quality seafood products provides an ideal opportunity to facilitate adherence to international environmental standards. Encouraging countries to adopt environmentally sound practices most likely will prove ineffective without some appreciable incentive. For countries wanting to compete in the US market - one of the largest and most desired markets in the world - foreign product imported into the US should be subject to the same quality control guidelines and environmental policies as those required of domestic producers. That would provide a much stronger financial incentive for non complying countries to adhere to a responsible Code of Conduct than current policies.

### **CHAPTER 23: Connecting the Oceans and Human Health**

- 23-2** The National Oceanic and Atmospheric Administration, National Science Foundation, National Institute of Environmental Health Sciences, and other appropriate entities should support expanded research efforts in marine microbiology and virology.

We strongly agree with this recommendation. The basis for protecting the health of an ecosystem as well as the local human populations is in understanding the conditions by which harmful organisms, including toxic algae, flourish. While nearly all microbes are beneficial to natural ecosystems and ultimately to our health, some marine microbes cause serious problems, including corrosion, fouling, and harmful algal blooms that produce toxins affecting people, fish, and other marine life. Blooms of both toxic and nontoxic algae may be increasing in our inland bays and coastal waters as more and more people move into the area and development continues. A more fundamental understanding of marine microbes is needed to predict the consequences of coastal development and to solve the serious environmental problems it causes.

### **CHAPTER 24: Managing Offshore Energy and Mineral Resources**

We agree with the recommendations of this chapter. Although Delaware does not have oil or natural gas production facilities off its coastline, there is potential for new liquid and methane hydrate natural gas supplies from both shallow and deep water off the Delaware coast. Delaware is also engaged in preliminary discussions with companies proposing renewable energy projects including offshore windmills and tidal turbines.

The State plays an important role in fulfilling the Nation's energy needs as the Delaware River supports the second largest petrochemical industry in the nation. A 1995 estimate by the U.S. Coast Guard reported that approximately 70% of all crude oil entering the Eastern United States transits the Delaware Bay. Thus, the State must consistently deal with the cumulative and secondary impacts of this industry, including accidental releases from refineries, oil spills and shoreline erosion caused by ship traffic.

The existing cumulative and secondary impacts associated with energy development, coupled with emerging renewable energy technology make the recommendations of this chapter particularly important for Delaware, particularly recommendations 24-1 and 24-5, as explained further below.

**24-1** Congress, with input from the National Ocean Council, should ensure that a portion of the revenues that the federal government receives from the leasing and extraction of outer Continental Shelf (OCS) oil and gas is invested in the conservation and sustainable development of renewable ocean and coastal resources through grants to all coastal states. States off whose coasts OCS oil and gas is produced should receive a larger share of such portion to compensate them for the costs of addressing the environmental and socioeconomic impacts of energy activity in adjacent federal waters.

Delaware strongly agrees that a portion of OCS revenues should be returned to States, but would like to suggest that revenue shares disbursed to States be based upon a calculation that takes into consideration the primary, secondary and cumulative effects of OCS development. OCS funding based solely upon a State's production status may put Delaware at a tremendous disadvantage. Delaware is clearly impacted by the movement and production of petroleum and any additional impacts from OCS exploration or production need to be equitably compensated.

The Delaware River supports the second largest petrochemical industry in the nation and must deal with the cumulative and secondary impacts of this industry, including accidental releases from refineries, oil spills and shoreline erosion caused by ship traffic. The US Coast Guard estimates that approximately 70% of all crude oil entering the Eastern United States transits the Delaware Bay. Over a ten-year period, the main shipping channel between Philadelphia and the Atlantic Ocean accommodated an average of 107 million tons per year involving over 150 different commodities. Crude petroleum and petroleum products represent more than 80% of the total tonnage of commodities moved. Volatile Organic Carbon (VOC) emissions from petroleum transport and production are a significant source of ozone precursors. Controlling VOC emissions from lightering activities in the Bay and off-shore has been targeted to help Delaware attain Air Quality Standards for Ozone. Additionally, maintenance dredging and potentially deepening the Delaware River Main Channel to accommodate this vessel traffic has wide reaching environmental impacts.

**24-5** Congress, with input from the National Ocean Council, should enact legislation providing for the comprehensive management of offshore renewable energy development as part of a coordinated offshore management regime.

The State of Delaware has recently received two proposals for renewable energy development, one which proposed windmills off Delaware's Atlantic Ocean Shoreline, and one which proposes tidal turbines within the Indian River Inlet. Delaware's ability to coordinate and guide these proposals through Federal Consistency provisions and other

permitting mechanisms is hampered by the lack of a clear lead federal agency and transparent permitting process.

With increased emphasis on utilization of not only renewable energy resources such as electrical energy generated via wind turbines, but also on potential utilization of sand and gravel resources and emplacement of artificial reefs, competition exists for ocean-based resources offshore Delaware. Effective management of these competing uses is imperative so that as a nation we do not go down the same piecemeal “land use” path in the ocean as we have on land.

Additional comments regarding this chapter:

This chapter briefly discusses the role and importance of Federal Consistency provisions as they relate to offshore oil and gas development, including recent proposed rule changes that would address information needs and timing requirements, but contains no recommendations regarding the use or applicability of the Federal Consistency provisions. Because of its important role of ensuring adequate coordination between State and Federal agencies, Delaware feels that Federal Consistency provisions should remain strong to enable States to adequately address coastal zone effects resulting from OCS projects, whether non-renewable energy development, renewable energy development or mineral extraction. The Report of the U.S. Commission on Ocean Policy should reflect the importance of Federal Consistency to individual States by including a specific recommendation to strengthen Federal Consistency provisions as they relate to OCS development and to ensure that the Federal Consistency process can adequately address emerging OCS issues, including renewable energy development, by building adequate flexibility into the Federal Consistency rules.

#### **CHAPTER 25: Creating a National Strategy for Increasing Scientific Knowledge**

**25–2** The National Ocean Council should develop a national ocean research strategy that reflects a long-term vision, promotes advances in basic and applied ocean science and technology, and guides relevant agencies in developing ten-year science plans and budgets.

We strongly agree with this recommendation. A long term vision is crucial in addressing coastal issues along with incorporating the science needs of local, state and regional managers into the vision. The promotion of the transition of basic research to applied uses is critical to coastal managers.

One example of this involves atmospheric deposition. Atmospheric deposition of nutrients and other contaminants is a major source of pollutants both to coastal areas and upland areas of the State of Delaware. A majority of the sources of these pollutants are outside the jurisdictional boundaries of the State, hence are not subject to regulation by the State. This is just one example of a regional concern, which the State of Delaware is liable to be federally penalized for, but has little or no legal control over. To properly address this and other regional problems that affect the State, a National Research

Strategy needs to be developed as proposed in the U.S. Ocean Commission's report. This strategy will help research cross-governmental boundaries and provide for the prompt release of data that will help the State of Delaware and other entities effectively manage the coast and provide support for multi-state/national policy decisions and actions.

**25-5** The National Ocean Council (NOC) should coordinate federal resource assessment, mapping, and charting activities with the goal of creating standardized, easily accessible national maps that incorporate living and nonliving marine resource data along with bathymetry, topography, and other natural features.

We emphasize the need for standardized and easily accessible maps and data, along with the suggestion that other non-federal agencies be urged to follow the same standards.

## **CHAPTER 26: Achieving a Sustained, Integrated Ocean Observing System**

Development of an Integrated Ocean Observing System that melds with terrestrial observing systems and supplies real-time information is critical to protect the welfare of the state.

**26-1** The National Ocean Council should make development and implementation of a sustained, national Integrated Ocean Observing System a central focus of its leadership and coordination role.

We strongly agree with this recommendation. Development of an Integrated Ocean Observing System is needed for coastal protection, management and research. In addition this system must have real-time data availability to be of value in times emergencies, either natural events or accidents. This system should incorporate all aspects of monitoring from tributary headwaters to offshore stations to be truly effective.

**26-4** Ocean.US should proactively seek input from coastal and ocean communities to build cross-sector support for the national Integrated Ocean Observing System (IOOS) and develop consensus about operational requirements.

To be successful, there is a strong need for local support for IOOS and for developing operation requirements that meet the needs of local coastal managers.

Development of an Integrated Ocean Observing System that melds with terrestrial observing systems and supplies real-time information is critical to protect the welfare of the state.

Finally, as mentioned in Governor Minner's cover letter, the following are examples of two situations where Delaware could benefit from an IOOS:



### Oil Spill Response

The Delaware River and Bay has more tanker traffic than any other location on the east coast. Fortunately oil spill incidents have been few in recent history; however, there is the potential for tremendous environmental and economic harm from a major spill. If a spill should happen real-time environmental data would be crucial to emergency response efforts. Data provided from an IOOS would provide immediate information on winds and tides to ensure proper placement of control measures to minimize the damage. Currently due to lack of funding the NOAA supported Physical Oceanographic Real-Time System (PORTS) in the Delaware Bay has been discontinued, and the fledging State/University initiated Delaware Environmental Observing System (DEOS) does not have offshore capabilities as of yet. Support for an IOOS network that includes the Delaware River and Bay is imperative for the environmental and economic security of the State from oil spills or other accidental contaminate releases.

### Coastal Storm Warning

Most damage along the Delaware coastline is due to offshore storms, either hurricanes or Nor'easters. While the current National Weather System network can give reliable predictions of major storm events progressing eastward across the country, there is limited data available to accurately predict the consequences of offshore storms. A strong Integrated Ocean Observing Network (IOOS) would provide critical data on winds, wave heights, barometric pressure and other storm factors, so that emergency planners can effectively alert the public and mobilize needed personnel and equipment. Early warnings from IOOS would allow adequate time for coastal evacuations, securing structures, and finding safe harbors to prevent the loss of life and minimize property damage. The State of Delaware feels that an Intergraded Ocean Observing System is a critical need to protect human life and property and the resources of the State.

## **CHAPTER 27: Enhancing Ocean Infrastructure and Technology Development**

Streamlining the process and developing partnerships will promote technology transfer and better utilize resources.

## **CHAPTER 28: Modernizing Ocean Data and Information Resources**

**28-1** Congress should amend the National Oceanographic Partnership Act to establish and fund Ocean.IT as the lead federal interagency planning organization for ocean and coastal data and information management. Ocean.IT should consist of representatives from all federal agencies involved in ocean data and information management, be supported by a small office, and report to the National Ocean Council's Committee on Ocean Science, Education, Technology, and Operations.

We endorse this recommendation, but would like to stress the need for local public and private representation and the need for interagency cooperation and communication.

## **CHAPTER 29: Advancing International Ocean Science and Policy**

The State of Delaware agrees with the recommendations in this chapter. We are impacted by decisions made outside our borders, including decisions made by other countries, particularly on issues that impact air quality and avian resources. We have and will continue to host visiting nations and share experiences in managing ocean and coastal resources.