Florida Fish & Wildlife Conservation Commission
Florida Marine Research Institute
St. Petersburg, Florida

RESPONSE TO U.S. COMMISSION ON OCEAN POLICY

What specific recommendations would you make to help integrate Federal/State/Local management?

Integration of Federal/State/Local management has been and continues to be a difficult and often contentious issue. A first step in integrated management is a holistic perspective that recognizes the interconnected relationships of habitat type and condition, population and community structures, and overall system ecology. While much has changed since the first federal fisheries management plans were adopted, their development remains a strongly top-down process of federal control. The same holds largely true in other Federal/State jurisdictional interactions. A more inclusive approach to better resource management would more fully integrate state authorities with federal mandates. The Atlantic State Marine Fisheries Commission (and Gulf State Marine Fisheries Commission, to an extent) is an example of very positive movement in that direction. The Commission is organized with the state resource directors as the principle authorities for authorizing action in multi-jurisdictional fisheries and habitats. This approach results in a collaborative effort by the States (and Federal government partners) to develop policies and practices that sustain and enhance coastal resources. Notably Congress in 1993 enacted the Atlantic Coastal Fisheries Cooperative Management Act (ACFCMA), which acknowledged that no single government entity has exclusive management authority and further recognizes the States as responsible for cooperative fishery oversight and coastal management. In this cooperative context it is recognized that the Commission does not stand as a separate entity but only as an embodiment of the States that empower it. The ACFCMA is a unique act; however, with modification it could be expanded to include other regions and oceans effectively. The Coastal Zone Management Act likewise recognizes the importance of the States in coastal resource management decisions.

Critical points to emphasize include: that the States are close to and responsible to broad public interest; that each State as a sovereign entity has its own laws and rules, but while acting as a Commission considers the health, welfare and sustainability of fishery stocks across a much wider area; and that resource management is a complex job requiring concerted consistent action by many levels of government for long periods of time.

The changing face of marine management over the last decade toward a holistic ecosystem approach focused on sustainability has made adoption of a multi-tiered inter-jurisdictional approach most likely to achieve success. An organization structure built on the ASMFC model affords a point of departure for such an endeavor.

Please provide your suggestions on how best to integrate monitoring programs and what recommendations the Commission should make in this area.

Monitoring programs are critical components to successful environmental management. Monitoring programs works best when common approaches are used such that the results are applicable at several levels. It needs to be coordinated and integrated so that data collected on a particular problem or at a fine scale (reach of a stream or portion of an estuary) can be merged

into regional applications. Specialized designs must be carefully considered or the data will be of only localized value. The federal Environmental Protection Agency's Environmental Monitoring & Assessment Program (EMAP) strategies and Florida's tiered Watershed Monitoring Programs are two excellent examples of how programs can and should be structured.

What Monitoring Programs lack is recognition as a necessary continuing activity, separate and different from operational management or applied/investigative/process research. Past programs have generally been linked to one or the other, and thus must compete for funding that is highly restricted and/or ephemeral in nature. Monitoring must be funded as a separate, recurring expense not in competition for funds. With such stability the many great collaborative efforts all ready planned or discussed could be coordinated and integrated at the multiple scales and sensitivities necessary to understand and properly manage estuarine and oceanic ecosystems.

As stated in presented testimony, a consolidated independent federal initiative directed at long-term monitoring of our coastal and estuarine waters is needed. Local, State and Federal programs have been planned and often implemented, only to be cancelled or modified because of funding issues. The information provided by monitoring, planning, implementing and evaluating management actions is critical, but a national policy fully embracing the maintenance of such programs is lacking.

On aquaculture: how do you address the increasing criticism of using products based on wild fish to feed aquaculture fish/shellfish?

Today, about 1/3 of annual global production of fish meals and oils are used in fish feeds, but this does not mean that more fish meal is being made. Use patterns have shifted with a lower percentage of global production used in poultry and swine feeds compared to 10 years ago. These shifts are the result of economic pressures, meaning that fish feed producers are willing to pay more for fish meal than poultry producers.

About 70% of the fish meal used by aquaculture is used by just three species groups: salmon and trout, shrimp, and marine fish. Scientists from many countries are working (and have been doing so for many years) to find and demonstrate the value of using plant proteins to replace a portion of the fish meal used in feeds for these species groups.

Feed formulation is dictated in part by economics, and when economics so dictate, fish meal levels in feeds for farmed fish are lowered. If fish meal prices increase in the future, a portion of the fish meal in fish feeds can be replaced by soy, corn and wheat glutens or other alternative proteins without affecting production efficiencies or the price of products to the consumer.

If aquaculture ceased using fish meal in feeds tomorrow, there would be absolutely no impact on landings of fish to make fish meal, because other agriculture production sectors would buy it all.

How do you "harmonize" aquaculture policy? Please provide specific suggestions for elements of national aquaculture policy.

A number of federal agencies support aquaculture development in the United States, and there is a real need to coordinate the various agency efforts. The mechanism to harmonize the development of national aquaculture policy was put into place back in the 1980s when Congress established the Joint Subcommittee on Aquaculture (JSA) and identified the Department of

Agriculture as the lead agency for developing U.S. aquaculture. The specific purpose of the JSA is to coordinate aquaculture research and assistance programs provided through the federal agencies and this has occurred to some degree over the past 15-20 years. The JSA has provided a forum for federal agency representatives to provide updates on aquaculture activities.

The JSA attempts to revise and update the National Aquaculture Development Plan reached a stalemate a number of years ago. The stalemate resulted from federal agency conflicts over the jurisdiction of marine and freshwater aquaculture development. Although the freshwater aquaculture industry is well developed, commercial marine aquaculture in the U.S. is still in its infancy. In order to move forward, the U.S. aquaculture industry needs the federal agencies to provide expanded financial resources and to use those resources to develop complimentary and coordinated programs to support the industry. Salt and freshwater aquaculture technologies are more similar than they are different. Splitting the support of these industries based on the amount of salt in the water does not make sense.

The two primary federal agencies that support aquaculture are the Department of Agriculture and the Department of Commerce. These agencies need to expand and coordinate their investments in aquaculture research and technology and to link those efforts to industry outreach education. It is critical that the U.S. research and technology base benefit from research and technologies generated and adopted in foreign countries. In the past ten years, the marine aquaculture industry in Europe, Asia and Australia has significantly expanded. The U.S. industry cannot afford to reinvent the wheel and would greatly benefit from expanded scientific exchange with foreign scientists and industry members.

It is also imperative that the federal government recognizes the potential for aquaculture development in individual states extends beyond the regional approach developed with the National Aquaculture Plan back in 1980. Florida suffered badly in that artificial regionalization. Implementation of federal resources and collaboration should be more localized on a state level. The federal government should help but not hinder. Specifically, they should allow more say by states relative to their own management, species selection, bmp's, etc., and states should likewise encourage parochial input within their borders to encourage local resources, ideas, and funding of unique projects.