Carl Safina, Ph.D.
Vice President for Marine Conservation
National Audubon Society
306 South Bay Avenue
Islip, NY 11751 USA
631-277-4289
CSafina@Audubon.org

In response to letter of Dec 12 from Admiral Watkins, these are my answers to the questions:

Economics: Fisheries provide a net benefit only when well managed and not depleted. U.S. taxpayers have paid several hundred million dollars since 1994 to mitigate the economic and ecological impacts of fishery management failures in New England, Alaska and along the West Coast. Mismanagement of valuable resources costs taxpayers about $78 million a year in emergency spending and aid to fishermen, according to the Marine Fish Conservation Network, a coalition of environmentalists, fishermen and scientists. Worldwide, Government subsidies to the fishing industry amount to at least US$15 billion per year, or roughly 20 percent of the total landed value of the world's commercial fish catch, according to new figures released by WWF. The report, "Hard Facts, Hidden Problems: A Review of Current Data on Fishing Subsidies," offers, for the first time, evidence that nearly one U.S. dollar in five earned by the fishing industry comes from government handouts. For the full text, visit: http://ens-news.com/ens/oct2001/2001L-10-25-02.html. The United Nations has estimated that worldwide, because of government subsidies, to catch seventy billion dollars worth of fish, 124 billion is spent. In the early 1990s 2 federal U.S. scientists calculated that fishery depletions in the US cost $8 billion annually, and 300,000 jobs (Sissenwine, M. P. and A. A. Rosenberg. 1993. Marine fisheries at a critical juncture. Fisheries 18: 6-10.)

What are my recommendations to address problems with sustainability? To foster aquaculture?
First, I don't believe aquaculture should be fostered. Business should not be subsidized. Most saltwater aquaculture results in net loss of protein, not gain. If anything should be fostered, it should be closed-system farming of vegetarian fishes. Aquaculture in open waterways should be discouraged. No more natural habitat that supports wild marine fisheries should be destroyed for aquaculture. These ventures fail, with negative effects on wild fisheries as well. On the wild side, management should simply be forced to comply with the US Sustainable Fisheries Act of 1996. This Act should under no circumstances be weakened during reauthorization. Rather, it's provisions requiring rebuilding of depleted fish populations should be aggressively emphasized.

How should be accommodate competing interests in resource use?
We should not accommodate interests; rather we should always and only seek to ask what best serves the long-tern public interest. In general, abundant, recovered wild fish populations and natural habitat best serves the long-tern public interest because these things provide the raw material for prosperity.

Zoning in the ocean: The sea floor should be mapped according to habitat type. 80% should be zoned for various uses or mixed uses, in categories that either interfere with each other or harm the habitat. For example, in New England there might be 2 or 3 use categories: e.g. one for mobile fishing gear which harms the habitat, and one for fixed fishing gear which is often destroyed by mobile gear, and perhaps one zone for experimental fixed gear such as new kinds of fish traps which would seek to improve on existing methods. The remaining 20% should go to scientific baseline areas or fish spawning reserves where no fishing is allowed. People will make this seem incredibly complicated and confusing, but it doesn't have to be at all. Zoning is much more complex on land than it will ever be at sea, and we make it work well anyway.

How do we determine reserve boundaries?
Based on seafloor maps and expert scientific advice.

Should we define biodiversity objectives or preserve present conditions as a default strategy?
This is a moot question, actually, because US law embodied in the Sustainable Fisheries Act of 1996 sets very clear recovery goals for the many depleted fish populations. Recovery is critical. Present conditions are not acceptable and are causing terrible economic damage. We now need vigorous pursuit of those goals through enforcement and policy. And we need legislation setting new habitat recovery goals, especially to restrict bottom dragging fishing activities.

Should we be stewards of marine systems broadly or just regarding a narrow set of resources?
We must at minimum manage human activities altering the set of resources we affect: Fish populations, coastal habitat, shelf habitat, water quality, and ocean warming.

Should the commission prioritize certain pollution issues?
Farm runoff, both vegetable and livestock.

Individual responsibility?
Laws create individual responsibility. Don’t ask people to volunteer to do more than their neighbors and competitors have to do. Leave that to the clergy. As public policy, it doesn’t work unless laws level the playing field. Importantly, any private activity affecting a public resource is a public activity.

Specific recommendations for sustainable economic development of coastal communities: In my direct experience, nothing stimulates coastal economies as much as laws that force the recovery of abundant fish populations followed by sustainable fishing policies, tradable fish-access quotas for certain fisheries (with accumulation caps), beautiful healthy habitats and attractive beaches and healthy coral reefs. These things attract, hold, and vitalize local economies from fishing to tourism.

Thanks for the opportunity to comment.