

## TOPIC: COASTAL ZONE MANAGEMENT

### KEY ISSUE: *Roles of Governments in Managing Coast - Includes CZMA Issues*

#### ISSUES RAISED

- Coastal management of limited island resources formidable challenge in U.S. Insular Areas due to dependency on narrow economic base, growing population, changes in societal expectations. Development impacts are magnified on small island states. Priority issues: escalating impacts of population growth, applying regional network approach to significant environmental issues, maintaining balance between economic growth and sustainability, re-thinking the sustainability of reef fish stocks, need for research on physical parameters and ocean dynamics and impacts on ocean resources. (Brighthouse)
- S. 6217 of CZMA overly broad and lacks regulatory teeth; no implementation funds. CZMA only has voluntary requirements for nonpoint program; no teeth (Gold)
- Coastal Zone Management: Coast is far from saved [description of CA and national coastal demographics]. Conflicting federal programs: provide perverse incentives to develop vs. attempt to manage development and protect vital areas. After 30-year tenure, CZMA has helped promote better land use management in some states, but failed to adequately protect coastal habitat and sensitive areas. (Nothoff)
- California Coastal Commission jurisdiction is state's coastal zone; through CZMA, federal consistency has review authority beyond coastal zone. Many federal activities have potentially significant affects on ocean and coast and only voice is through Commission federal consistency authority. Most important coastal management tool CZMA provides CA is federal consistency review authority; understand oil industry and DOD have asked for amendments to CZMA to weaken this provision. (Wan)
- Relationship between state, federal, and local programs. Local efforts are essential to fulfilling goals in any national and state efforts; temptation is to put in more regulations when some are working well, then you produce resistance. Flexibility, education, encouragement, rewards, site specificity, are all important for regulatory program to work. (Jennings)
- Ultimate success of outcome of Commission efforts depends on state government actions. (Cooksey)
- States need guidance to help sort out complex issues such as conflicts between man and nature and balance multiple use conflicts. Examples include:
  - 1) Ocean shorelines;
  - 2) Interdependent species management (horseshoe crab);
  - 3) Conflicting federal mandates (i.e., dredging permits, COE, NMFS, EPA) (Cooksey)
- In 1980s, North Carolina embarked on multi-year effort to identify its ocean resources and policy issues as well as to begin identifying options and actions. Several reports have been prepared [description provided] New issues: Severe hurricanes and need to reduce risk to property; fiber optic cables; reauthorization of CZMA immediately. (Ross)
- Importance of CZM prompted Louisiana to establish new way to manage coastal resources, largely responsible for discovery of severity of coastal erosion problem and many coastal use guidelines were crafted to address wetland loss. (Caldwell)

*Roles of Governments in Managing Coast - Includes CZMA Issues (continued)*

- Benefits of CZM: reduce adverse impacts to coastal resources while still allowing economic engine to run, federal consistency has helped get federal agencies to assist state in reducing coastal impacts and beneficial use of dredged material. (Caldwell)
- States take the lead in protecting natural resources. (Cooksey)
- States are key to a coordinated and comprehensive National Ocean Policy. (Cooksey)
- Partnership established by CZMA remarkably productive; More than 97% of national coastal areas fall under a state CZM plan. (Cooksey)
- Governors firmly believe all federal activities within or outside of coastal zone that may affect the zone should be subject to consistency review process. (Cooksey)
- Many coastal states have developed their own management expertise over coastal resources. (Underwood)
- Integration of ocean resource management into state CZM began in 1996-97:
  - 1) Florida Ocean Policy Roundtable: dialogue among public and private groups;
  - 2) Looking Seaward: Development of a State Ocean Policy is an overview and assessment of law and policy related to management of Florida's ocean resources;
  - 3) Statewide Ocean Resource Inventory (SORI) is a desktop GIS;
  - 4) Governor's Ocean Committee (1998) was charged with raising public awareness of the importance of the ocean to Florida and how to manage it better;
  - 5) Florida Alliance was formed by several members from Governor's Committee; serves as clearinghouse for information on key ocean and coastal issues and monitors and publicizes actions related to oceans and coasts; focuses on outreach and educational activities (conferences, white papers, etc). (Murley)
- Development and implementation of ocean policy in US VI significantly influenced by, and often dependent on, physical, ecological, social, economic and political characteristics of territory. (Ragster)
- Territory needs to build capacity to address policy development and implementation. (Ragster)
- Regulating agencies have become partially paralyzed, decisions are reactive not proactive. (Powell)
- The Port of Seattle and the people of King County are proud of the Terminal 5 redevelopment and clean up, a superfund site, and the regional efforts to protect the Chinook salmon, yet unfinished, by elimination of untreated sewage discharges and cooperative clean up of the lower Duwamish River. Strong relationships, cooperation and partnerships made these successes possible. (Edwards)
- Oregon's Coastal Management Program includes a statewide planning goal specific to Ocean Resources; one of 19 goals that frame the statewide land-use planning program. The Goal 19, Ocean Resources, sets the overarching policy standards for management and protection of ocean resources. All State and Federal agencies must meet the requirements of Goal 19. (Soliday)
- Ocean Resources Management program, created by legislature in 1991, builds on authorities of existing state programs and brings affected interests into a process. (Soliday)
- State ocean management—Improved state-level capacity for management of an expanded territorial sea is needed. (Hamilton)
- Currently, the Ocean Policy Advisory Council (OPAC), a state ocean advisory body that reports to the Governor, is assessing whether marine reserves would be useful tools for achieving Oregon's statewide conservation goals. (Taylor)
- Current state regulations articulate priorities for the use of all tidelands subject to the public trust, and require that any private use of tidelands be mitigated by some type of public benefit. (Durand)

- One of the many areas of continuing interest to New Hampshire is that of Federal consistency. (Hartman)
- Without CZM consistency as a cornerstone of any national ocean policy, it will be difficult to effectively achieve balance of the diverse interests and values associated with our coast. CZMA must be as an essential foundation and then all Federal programs that affect ocean and coastal management can be effectively coordinated and streamlined. (Stahl)
- Much work has been done by the National Estuary Programs (NEPs). Massachusetts has two NEPs: 1) The Massachusetts Bay NEP, and the 2) Buzzards Bay NEP. They both have been essential with the local communities. The Buzzards Bay Program has been instrumental in getting towns in the southeastern part of MA to address nutrient-loading issues. The Mass. Bay Program provided funding in the Plum Island Sound region, which helped us to do an analysis of issues, and to work with the local communities to get programs to update their regulations. (Buchsbaum)
- The Federal government will never be able to force communities to make substantial changes just on the sheer politics of it alone. FEMA will not get involved unless the Presidential declaration comes forth. EPA and the Coast Guard have their programs and jurisdiction and FEMA has their programs and jurisdictions. FEMA has informal meetings and communications with the Coast Guard and NOAA. FEMA shares quite a bit of information with other Federal agencies in mapping special flight hazard areas. The flood model that is used actually belongs to the USACOE. That flood model was developed to map both river and coastal flood zone areas. The vast majority of the various flood maps were actually done by other Federal agencies, normally ACOE and USGS. Currently, private contractors do most of the mapping because they can do it faster than the Federal agencies that have fewer resources. There is great coordination both regionally and nationally. FEMA has developed a Coastal Construction Manual that specifies coastal building design and construction standards for coastal areas. (Pennington)
- The Federal Emergency Management Agency (FEMA) is responsible for the National Flood Insurance Program (NFIP). Community participation in the NFIP is voluntary and each flood-prone community must assess its flood hazard and determine whether insurance and floodplain management would benefit the community's residents. (Pennington)
- In May 2000, FEMA commissioned a report by the Heinz Center for Science, Economics, and the Environment, which concluded that approximately 25% of homes within 500 feet of the U.S. coastline would fall victim to the effects of erosion with the next 60 years. (Pennington)
- One response by FEMA has been to develop a plan to achieve a nationwide updating of Flood Insurance Rate Maps (called the Map Modernization Initiative). (Pennington)
- The tribes in Alaska are very concerned about their environment, their resources, and the health of their people. (Herrmann)
- The 2002 Farm Bill provides \$5.6 billion in Environmental Quality Incentives Program cost-share and technical assistance through FY 2007 that will be available to farmers and private landowners to improve soil, water, and air quality. As a subset of EQIP, Congress also established a new Ground and Surface Water Conservation Program and authorized funding of \$310 million through Fiscal Year 2007. The Wildlife Habitat Incentives Program is providing \$360 million in funding. The Wetlands Reserve Program was expanded in the Farm Bill to restore, enhance, and protect more than 1 million acres of additional wetlands. (Knight)
- Three national programs have been developed in past ten years; Coastal Training Program, System-Wide Monitoring Program, and Graduate Research Fellowship Program. (Wellenberger)

## **PRESENTER RECOMMENDATIONS**

- Require and provide opportunities for increased input from the territories in the development of policy and the strategies devised to implement them:
  - 1) Create local ocean/coastal working groups of federal and local officials;
  - 2) Recognize need for appropriate communication strategies for involving local stakeholders;
  - 3) Include and support active USVI representation on U.S. delegations for international or national environmental policy (e.g., IOCaribe, UNEP-Caribbean Environment Program). (Ragster)
- Nonpoint programs of CZMA and stormwater 319 program of EPA need to be reviewed for duplication and new model for state-federal partnership in coastal nonpoint program needs to be implemented. (Haddad)
- Recognize the need to include capacity building for the territory in the implementation phase of all policies:
  - 1) Identify local expertise that can assist;
  - 2) Ensure funding is available to implement new policies;
  - 3) Require effective communication with, and education of, VI public;
  - 4) Provide assistance to develop strategy for a coherent framework. (Ragster)
- Recommend:
  - 1) Marketing, education and outreach- expand public information efforts on coastal and ocean stewardship; federal cooperation in education and development of professional coastal zone managers using scholarships, grants, internships and foreign exchange programs.
  - 2) Hazard mitigation: federal initiatives for hazard mitigation is successful, continue support for these efforts to prevent beach loss, curb vessel spills and discharge, resist alien species, improve land use planning.
  - 3) Economic analysis: need better picture of nationwide impacts and economic contributions of coastal related activities.
  - 4) Regulatory environment: need national standards for shoreline setbacks, coastal armoring, public access, dune protection, jurisdictional boundaries, floodplain and coastal development. (Blane)
- Improve communication and planning by state and federal agencies:
  - 1) Better dialogue between commercial users and government with clear and obtainable objectives;
  - 2) Private industry needs to partner with government to reach financial and conservation objectives. (Coon)
- Coastal Zone Management Act:
  - 1) CZMA Enhancement Grants Program should be amended to facilitate the creation of a national standard of beach health indicators and provide incentives for state CZM management agencies to maintain records on beach health indicators.
  - 2) CZMA Enhancement Grant Program should be amended to provide incentives for state CZM programs to increase public awareness regarding beach and coastal health. (Werny)
- Key message: not only oppose any weakening of federal consistency, recommend strengthening it; federal agencies should not be allowed to ignore states by claiming they “attempted” to be consistent to the “maximum extent practicable”:
  - 1) preclude use of inadequate federal funding as excuse for non-compliance [Navy example provided];
  - 2) Any renewal of federal permits and licenses for OCS uses subject to consistency review [OCS leases example provided]. (Wan)
- Strengthen CZMA policies to improve ability to manage resources:
  - 1) habitat protection on land must be considered part of any overall ocean ecosystem approach;
  - 2) concerned about nonpoint pollution. (Wan)
- CZMA Sections 302 and 303 should recognize coastal watersheds and place greater emphasis on conservation of ocean resources. (Wan)

- Target acquisition of important coastal resource lands:
  - 1) Important wildlife habitat and resources (barrier islands, wetlands, etc.) should be acquired and permanently protected through variety of funding mechanisms like competitive grants and public bonds.
  - 2) “Healthy coast surcharge” percentage of each real estate transaction for transfers goes to acquisition fund.
- End perverse federal incentives for coastally destructive development:
  - 1) National Flood Insurance Program and Army Corps beach nourishment and armoring;
  - 2) Coastal Barrier Resources Act (CBRA) should be expanded to Pacific coast [description provided]
- Institute meaningful growth control measures to protect coastal resource lands:
  - 1) Limit impervious surfaces in watersheds to less than 10% of total land area;
  - 2) Set residential densities at levels that can support transit and reduce vehicle trips per household;
  - 3) Protect important coastal habitats. (Nothoff)
- New funding under CZMA should be tied to state and local governments instituting growth management regulations conforming to growth management principles.
- Strengthen polluted runoff controls in the CZMA:
  - 1) Coastal Nonpoint Pollution Control Program, CZARA, must be reauthorized, integrated into CZMA with increased dedicated funding, and strengthened to provide meaningful incentives and penalties;
  - 2) Monitor and evaluate state nonpoint control programs to ensure implementation;
  - 3) States should be required to set meaningful specific goals and held accountable.
- Maintain state and federal partnership through strong consistency authority:
  - 1) Consistency authority should be maintained legislatively and upheld legally. (Nothoff)
- Changes: Act should remain unchanged with two exceptions; eliminate or raise cap on Section 306 funding (now at \$2 million); Modify Section 309 Enhancements to fully fund enhancements or eliminate section. (Caldwell)
- Reassess federal laws and policies regarding future development of coastal environs:
  - 1) Define “water dependency” and develop policies to ensure wise use of shorelines for truly water dependent endeavors;
  - 2) Develop policy requiring “in-kind” mitigation for the most endangered wetlands;
  - 3) Review federal subsidies for developments in 100 year flood plain;
  - 4) Tie information gained from natural hazards response programs to permitting programs to minimize probability of future impacts;
  - 5) Facilitate federal/state interagency meetings as part of permitting process to ensure all aspects of legislated environmental protections are addressed. (Carpenter)
- Coastal zone consistency: OCS oil and gas development needs predictability and clarity. Concerned about new conditional concurrence provisions. (Oynes)
- Better permitting for considering cumulative impacts best handles on local level through zoning and planning. (Palmer)
- Sustainable economic development and stimulus for coastal communities:
  - 1) Improve rigor of NEPA environmental assessments [five recommendations provided]; and
  - 2) Develop market-based incentives to encourage sustainable development [four recommendations provided]. (Hopkins)
- Improvements to CZMA:
  - 1) Limit state’s CZMA consistency review of private permits over activities outside of its own coastal zone;
  - 2) Allow a single consistency certification for an OCS plan to cover all activities, including air and water permits;
  - 3) Grant the Secretary of the Interior the authority to determine information requirements for consistency certifications;

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- 4) Provide the Secretary of the Interior with the authority to determine state appeals concerning OCS energy activities;
  - 5) Ensure timely decisions on override appeals. Appeals to consistency determinations are often drawn out by the Commerce Department's implementation requirement that the deadline for decision making does not begin to run until the administrative record is closed;
  - 6) Examine efficient state consistency permitting practices that are already in place. (Talbert)
- Reauthorize CZMA with strong nonpoint pollution control provisions. (Giles)
  - Rationalize the coordination of federal agencies involved in development and implementation of policy:
    - 1) Communicate how it will work and how implementation will be more effective;
    - 2) Consider providing liaison for each policy under consideration. (Ragster)
  - Recognize that federal and local government agencies need orientation and strategies to enable them to work in multi-sector or cross-sector teams during policy development. (Ragster)
  - It would be helpful to have an amendment to the CZMA to be clearer on the expectations of the communities and local governments, and what guidelines they want regarding consistency along the coast. (Shultz)
  - Growth issues should be included in the CZMA. It is a goal for local governments to direct growth new development away from the shorelines, and minimize the impact of shoreline ecosystems and habitats. (Shultz)
  - It would be valuable if when local governments did their comprehensive planning under the State Growth Management Act, they could do environmental analysis at that level, and then when projects came in that were consistent with the plan and direction of growth everyone had agreed to through the planning process, you wouldn't have to do site specific environmental review. (Lashever)
  - The Coastal Zone Management Act—Coastal Zone Enhancement Grants Program should be amended to facilitate the creation of a national standard of beach health indicators and provide incentives for state coastal zone management agencies to maintain records on beach health indicators. (Evans, C)
  - Through amendments to the Coastal Zone Management Act and/or the Outer Continental Lands Act, expand and clarify the state role in management of the expanded territorial sea. (Hamilton)
  - Keep the Federal consistency process at least as strong as it is, and possibly reinforce it to make the states' role more assured than it is right now. (Hartman)
  - A great place to start when developing a comprehensive ocean policy would be to vigorously support the Federal Coastal Zone Management Act and the programs developed under it. (Stahl)
  - Balance must be achieved. There are great efficiencies in having the Coastal Services Center create a set of maps nationwide and we're looking for Federal agencies to work the data into a format that is useful on a national basis. There is still clearly a need to build the capacity at the state level so they can issue better water quality permits or help the aquaculture industry. (Keeley)
  - Seek legislation to authorize the Map Modernization Initiative, as well as consideration of coastal erosion data in the flood insurance rating schedule. (Pennington)
  - Coastal management by regions really represents a scale that hasn't been addressed in a lot of the major programs that have been conducted by NOAA in the states, but they are extremely important to the public and they really deserve some consideration for programmatic funds in the future. (Thomas)
  - In order to have our local resident play roles in the data collection in their remote location, they must understand their waters, understand the communities, and be able to provide valuable hands for the collection of marine data. They need some training and they need some education in it. (Pawlowski)

- The tribe should begin to develop a Local Area Management Plan (LAMP) for the Unalaska Bay Area, one that is based on ecosystem principles. (Pletnikoff)
- It is imperative for Mayors and other local government officials to have ongoing and meaningful opportunities to influence the development and implementation of the policies you have been charged with reviewing. (Jimenez)
- Mayors and municipalities should have an equal voice and vote in what and how the Great Lakes are managed. (Jimenez)
- Engage states in whatever ocean policy model is adopted. Set regional marine objectives then allow structures to form around them. (McPhail)
- Develop stronger partnerships between NERRS and CZMP with a Reserve in every CZMP state. (Wellenberger)
- Elevate NERRS role in coastal land stewardship. (Wellenberger)

## TOPIC: *COASTAL ZONE MANAGEMENT*

### KEY ISSUE: *Increasing Population and Development Pressures*

#### ISSUES RAISED

- Threats to coastal resources: CZM program concentrates on identifying and responding to continual threats to coastal resources
  - 1) Erosion: beach loss from armoring and sea level rise
  - 2) Pollution: agriculture runoff, sedimentation, poorly treated wastewater, urban drainage.
  - 3) Coral reef loss: bleaching from global warming, alien species, polluted runoff, vessel groundings, marine debris.
  - 4) Poor land use planning.
  - 5) Natural hazards: hurricanes, lava flows, local flooding, tsunamis.
  - 6) Cultural alienation: heavy influx of foreign and mainland visitors have had major impact on traditional Hawaiian culture.

#### Challenge and Response:

- 1) Better marketing, education and outreach. Community workshops, elementary school programs, public service ads, citizen advisory councils.
  - 2) Hazard mitigation: improved ability to predict and respond to threats.
  - 3) Better economic analysis: done poor job of quantifying economic contributions of coastal resources; far easier to ask for funding when you show return on investment
  - 4) Regulatory efforts: promoting concept that environmental protection is good for business; more consistent and user-friendly regulations. (Blane)
- Concerned that marine protection efforts stop at water's edge, beach bears brunt of development pressure. (Etnoyer)
  - Hope Commission will incorporate measures to stem population growth and strive for sustainability. (Grigg)
  - Environmentally harmful coastal development springs from many sources: insufficient funding; perverse incentives and lax or nonexistent standards are a few. (Nothoff)
  - Coastal population densities are now four times greater than national average. [testimony is a description of the Model for Predicting Future Urban Growth in Charleston, SC] (Allen, J)
  - Many pressures on oceans (overfishing, introduced species, agriculture) but coastal development is one of the most daunting. Population density is just part of the issue. 10 Percent Rule: when more than 10% of watershed acreage is covered with impervious surface, the rivers and streams within those watersheds become seriously degraded. If today's development trends continue, our estuaries will experience sharp and irreversible decline in health and productivity. Because land use is a local matter, reforms must be made by tens of thousands cities, counties, and towns. (Beach)
  - Of all lessons learned, perhaps most important is connection between land use and everything else. Policies should be initiated that motivate local governments (where land use decisions occur), communities, and developers, to grow smart. Smart growth means smart business. (Harrison)
  - Total population living, working, recreating at coast is increasing; population is getting older and richer. Traditional populations, often specific racial or ethnic, are being displaced by rising property values. (Orbach)
  - Quality of beach and water access is extremely variable across region; access still low, increasingly difficult because of trend towards "exclusive" business/residential. (Orbach)

- Most coastal municipalities and counties in the region lack basic comprehensive planning frameworks and resources. (Orbach)
- In general, still a lack of understanding of common natural phenomena such as barrier island movement, sea level rise, tide and storm impacts on estuarine function, etc; problem is worse the farther offshore you go. (Orbach)
- Have set up an opposition between development and environmental interest; need a different model that addresses it as design problem therefore need to involve many more people. (Orbach)
- Pew Commission on coastal development:
  - 1) Increased human occupation of the coast is irreversible and will continue;
  - 2) Need to understand the importance of our actions and the relationship of our actions to the environment. (Riley)
- Oceans start inland; protection must extend inland. (Lane)
- Issues always seem to come back to population growth, because population is primarily oriented along coast. (Powell)
- Ocean policy issues and concerns for USVI:
  - 1) Challenge of undertaking development on small islands with steep slopes, dense populations and fragile inshore coastal systems can be seen in the serious impacts of land-based nonpoint sources of pollution on reefs and other coastal ecosystems. Public education and communication programs and changes in development laws are major strategies to decrease effects;
  - 2) Solid and liquid waste disposal a major challenge;
  - 3) Stress on coral reefs from fishing and pollution have led to proposals for marine reserves and other restrictions create social issues among different stakeholders; need to address conservation and resource use as a community. Challenge is to realize appropriate level of integration of conservation efforts into development activities;
  - 4) Threats of natural hazards (hurricanes and earthquakes) raise concerns about how current policy addresses mitigation and recovery for manmade and natural systems;
  - 5) Need data to make critical decisions, not always clear if data exist or how to access the information needed. (Ragster)
- Land Use: Have laws to protect shorelines and ensure public access and enhance wildlife. Have acknowledged past mistakes and great strides have been made to correct them. (Shultz)
- Human population growth has a great impact on environmental consequences. Demands on the resources of the world for feeding and sheltering this mass of people is reaching limits. We have reached a stage where all the events produced by man are intertwined and each affects the other. (Poole)
- Fisheries resources are an excellent case where population growth has reduced the available fish and causes changes in the views of how this resource should be managed. (Poole)
- The cumulative impacts from individually planned and permitted coastal projects are undermining our larger efforts at coastal management. The individual projects add up to a wasteful pattern of development that has fiscal, environmental, and social consequences. [Further description provided.] (Richert)
- Development of coastal areas, watersheds and habitats is essentially irreversible, a permanent loss of our natural capital. (Stahl)
- Commercial, recreational, charter boat businesses, and subsistence needs are all competing for a limited amount of resources. [Further description provided.] (Pletnikoff)

## *Increasing Population and Development Pressures (continued)*

- While there are not the extreme problems here that face coastal communities around the nation, the essential problem is shared of how to continue making a decent living to keep the fabric of the communities and make sure they do not unravel. (Vick)
- Over the past two decades, numerous large-scale marinas in excess of 500 slips have been built throughout the Great Lakes and Canada to fulfill the demand of a large recreational boating industry. Sales in the recreational boating industry have fueled this growth. (Dikmen)
- Important issues include: importance of beaches to economy, keeping beaches open, water quality and Federal support for upgrades, repair and replacement of water and sewer infrastructure. (Jimenez)
- Development is clearly impacting on our wetlands and marshes and we are losing them as a result of that kind of development. The problem is that the threat from the resources largely is from ourselves, from our own behavior. (Panetta)
- Most of the politics, the pressure and the impacts upon the oceans occur in the coastal zone within a relatively short distance from the coast. (McPhail)
- Development and building continues without adequate recognition of real total costs involved. (Jumars)
- Discussion of background and current issues concerning coastal development. (Rufe)
- Findings and goals and objectives for Coastal and Ocean Stewardship: Planning and management of growth impacts, shorelines and coastal hazards. (CSO)

## **PRESENTER RECOMMENDATIONS**

- Need to develop and enforce policies that protect areas from harmful coastal development. (Giles)
- Must change pattern of coastal development to maintain healthy estuaries. Need to start scenario modeling for metropolitan areas of U.S. coast. Regional planning and federal consistency with the plans is needed. Develop quantifiable standards and goals that regions can seek to achieve. Thinking about the future should occur at regional scale asking 3 questions: 1) risks with not changing projectory; 2) choices and alternatives; 3) mechanisms for implementing right choice? (Beach)
- Need: moratorium on coastal development before limits of growth are exceeded. (Monroe)
- Do not limit your thinking to first 50 or 100 or 1,000 feet of coastline, think upstream, right to headwaters of rivers that feed the ocean. This is where fate of bay or ocean will be determined. (Harrison)
- Land preservation has to be a key element of anything we do. [description of MD programs provided] (Harrison)
- Land Use:
  - 1) Reauthorize and amend CZMA creating a new coastal communities program to assist states in working directly with local governments to improve planning and management that balances growth and economic needs, protects critical resources and revitalizes waterfront areas. [details provided]
  - 2) Urge support for the establishment of a Coastal and Estuarine Conservation Fund—a permanent, dedicated funding source for coastal land conservation and habitat restoration. [details provided] (Shultz)
- More financial support and educational opportunities are needed to help our Northwest coastal communities diversify. (Revell)

- Incentives need to be created, an infrastructure built, and regulations enacted that will direct development to suitable nodes in coastal watersheds, and that will preserve critical masses of habitat, coastlines, and rural areas. (Richert)
- Reauthorize and strengthen the Coastal Zone Management Act to make it fully consistent with and build capacity for state and local initiatives for “smart growth.” [Further description provided.] (Richert)
- Move aggressively forward in acquiring and protecting undeveloped land on the coast and in coastal watersheds. (Stahl)
- National ocean policy should also stop providing incentives for regressive programs that endanger our security against coastal hazards. The Federal government should eliminate subsidies and incentives (e.g., availability of new government-sponsored insurance) for development and redevelopment in coastal high hazard, flood and erosion areas. (Stahl)
- The National Flood Insurance Program is the classic example of contradictory Federal policies and should be reformed to eliminate the costly subsidization of development in coastal hazard prone areas. The funding saved should augment a new very substantial land acquisition program dedicated to the protection of coastal critical habitats, open space and public access. [discussion provided] (Delaney)
- The use of Comprehensive Harbor Management Plans should be utilized to reach consensus on water quality restoration plans, dredging strategies, maritime economic development activities and public waterfront uses. [discussion provided] (Delaney)
- Large-scale marinas should be of great concern for every county and municipality and state in the Great Lakes region. It is imperative that we scale them properly and allow for expansion, as the market requires. Therefore, before new marina building initiates, marinas should be reviewed with diligence and scrutiny for full approval from both local municipalities, and state and federal entities surrounding the Great Lakes. (Dikmen)
- We need to expand ways to change land development practices to reduce runoff. We need to promote efficient development. (Panetta)
- More consistent regulations and enforcement of regulations on ownership and development of coastal properties to prevent future losses should be implemented. (Jumars)
- Specific recommendations are provided for coastal development. (Rufe)
- Planning and management of growth impacts, shorelines and coastal hazards (includes seven specific recommendations). (CSO)

# TOPIC: COASTAL ZONE MANAGEMENT

## KEY ISSUE: *Use of Science and Technology*

### ISSUES RAISED

- Coastal and oceans lack sufficient information or data that concerned citizen can understand. (Werny)
- Land Use-Coastal Ecosystem Study (LU-CES) key issues:
  - 1) Linking transport of forcing functions (e.g., contaminants), determining their fates (where do they end up) and identifying their effects on living resources;
  - 2) Spatial scaling.

LU-CES research products intended to be used to enhance abilities of decision makers and resource managers; helped create unique partnerships between academic and government scientists, and between federal, state, and local resource management and planning agencies; provides data that can be accessed in a variety of ways and levels of technical expertise, in a format designed to inform the decision-making process. (Kleppel)
- Detailed information and statistics regarding population demographics and urbanization patterns. (Kleppel)
- Having good science and engineering helps us prepare for when the money comes. (Caldwell)
- Ideas about prioritizing restoration needs based on science rather than politics. [detailed discussion and statistics about value of Louisiana industries, wetlands and land loss is provided] (Caldwell)
- Congress charged USGS to develop a comprehensive and integrated national coastal program to address the diversity of issues facing coastal communities. Impacts of rapidly growing coastal populations place increasing demands on developing ocean resources and space for economic benefit; understanding and mitigating the economic and environmental impacts of development is critical. Increasing populations require a balance between sustainable resource use, environmental protection, assurance of safe communities and reliable marine commerce systems; federal government faces the challenge of providing the information and tools to understand and mitigate resource and hazards vulnerability, to support and assess development of public policy, and to assess consequences of policy, resource management, and development decisions. (Groat)
- USGS has significant science capabilities [list provided] and priorities include:
  - 1) Information and monitoring [detailed discussion provided, with examples];
  - 2) Research;
  - 3) Integrated Information, Decision-Support Tools, Models and Assessments;
  - 4) Partnerships and collaboration. (Groat)
- Science seems to be brought in when we're almost at a crisis. Then, it is always too late and it takes too long to bring in the science. (Varanasi)
- Long-term continuous trend data about the health and status of shoreline resources are essential ingredients to these decisions. (Keeley)
- There is an increasing need for data collection in our coastal zone to support management efforts of NOAA, EPA, USFWS, and state agencies. Through a national policy we can build programs that employ our local people in using their knowledge to support data collection for science-based decisions. (Pawlowski)

## **PRESENTER RECOMMENDATIONS**

- Need accurate inventory of projects and programs currently underway throughout federal, state, and local governments, academia, and the private sector. (Groat)
- Way to focus the science on critical management issue is to have the management drive the science priorities. (Groat)
- Formatting information for the public in ways that the public participates is important change in getting information out; coasts and oceans need to be in front of people everyday. (Orbach)
- Greater scientific understanding and information about marine resources and how they are affected by human activity. (Murley)
- The Commission should bring in the science ahead of the problems, and develop the science to work out the problems. It is just not possible to turn science on and off like a faucet. (Varanasi)
- The Commission should build on our understanding of watersheds and take it to the next step. Take a “Sandshed” approach. While we do not understand all of the transport mechanisms in our oceans, we do know that sand and sediments move from the mountains, the sea cliffs, and the dunes onto the beaches and all the way offshore. (Revell)
- Consider the entire sandshed and the linkages between each ecosystem that is dependent on the sandshed. Measure the health of each linkage to understand where to target our conservation and restoration efforts. One such indicator is water quality. (Revell)
- The nation lacks a standardized set of beach health indicators that can be used to measure the effectiveness of coastal zone management. (Evans, C)
- Support a strong program for the mapping of Alaska’s coastal zone and EEZ. (Pawlowski)
- Coastal and ocean management must make better use of existing scientific knowledge. Access to and translation of technical information must be improved. (Allen)

## **TOPIC: COASTAL ZONE MANAGEMENT**

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### **KEY ISSUE: *Citizen Involvement***

#### **ISSUES RAISED**

- Volunteer based restoration projects significantly contribute to restoring habitat at a meaningful scale. However, on the other hand, the overall effort of restoring at a large scale cannot be done by volunteer projects. (Fletcher)
- The young, like myself, should exercise their voice. Inexcusably, many young people who are eligible don't even vote. They don't even understand or follow the policymaking process. Maybe they're discouraged. Maybe they don't realize how important it is yet. Forgive us. We'll be in your shoes someday. (Nugent)
- Alert, well-informed citizens are a key resource. (Stupak)

#### **PRESENTER RECOMMENDATIONS**

- Remember the citizen, the voter, the taxpayer who ultimately foots the bill; but oceans and coastlines and bays are national treasures; there needs to be strong national participation in management of these areas. (Harrison)
- Success of Bay Program: top-level attention; game plan with goal; involvement of citizens to maintain support; tributary teams. (Harrison)
- Coastal peoples should be included in the decision making process, farm salmon impacts, and the economic issues facing the state. (Ulcry)
- Recommend to the Commission to think carefully and recommend processes that step away from the management regime and go to the people. The people want to speak. The people of Alaska, the native community in particular, want their chance. (Marcy)
- We need direct citizen group participation in commissions, task forces, and other bodies to oversee efforts for ensuring that real ecosystem and public health are protected and for establishing clear restoration priorities. (Davis)

## TOPIC: COASTAL ZONE MANAGEMENT

### KEY ISSUE: *Economic Contributions of Ocean and Coastal Resources*

#### ISSUES RAISED

- Sustainable tourism: tourism not part of Hawaii's economy—it is the economy; if we lose or degrade coastal resources the impact on economy would be swift and painful. Tourism is highly symbiotic and must be integrated with quality of life of local residents. (Blane)
- Ocean industries important to Hawaii economy; 98% of goods are shipped to the islands. Hawaii has been discovered by cruise ship industry; 1/3 increase in port-calls over previous year; expansion of facilities needed but funds, time, and restrictions make it difficult. (Colom-Agaran)
- Ocean tourism industry in Hawaii highly segmented and dynamic. (Coon)
- Balance a sustainable ocean tourism growth model and making adjustments in how things are done; conflicts will arise and left unaddressed net result will destroy the very dynamics which make Hawaii such successful model for ocean tourism. (Coon)
- Ocean tourism industry needs a business-friendly environmentally-focused government. (Coon)
- Threats to ocean tourism:
  - 1) Federal marine mammal approach regulations are paramount threat perceived by commercial ocean user; no provision for “innocent passage” or demonstrate some “intent to harass”
  - 2) Degradation of Habitat: lack of coordination results in incremental, disjointed management
  - 3) Poor communication and planning by state and federal agencies. (Coon)
- Information about coast and coastal economy is essential part of any equation when considering ocean policies, but one that has been missing. Economic data can bridge from science to policy if understood properly. Importance of ocean and coastal economy [list of statistics provided]. To understand what programs and policies are effective, they must be able to measure change: No way to do that for coastal development: must understand people. We know very little about the coastal economy. (Kildow)
- National Ocean Economics Project:
  - 1) Little archived time series economic data for coastal economy; hard to get what does exist;
  - 2) Must ensure that data we develop is consistent, accurate, and clearly documented;
  - 3) First report at end of year: provide nation and each coastal state with estimates of the contribution of the coastal sector to the GDP.

What we've learned so far:

- 1) Federal marine expenditures in 2000 were less than half of 1970;
- 2) For traditional manufacturing sectors, coastal economy not the fastest growing part of U.S. economy;

Service sector is dominated by tourism and recreation; coastal tourism 85% of tourist dollars in U.S. (Kildow)

- In general, economies of coastal areas converting from extractive/heavy industries to dependence on leisure, tourism, and retirement (i.e., commercial fishing becoming displaced by competition for waterfront land and marinas for recreational clients) (Orbach)
- New England's economy and heritage have derived much from the sea. More than \$1 billion is generated in revenue. (Delahunt)
- Alaska's oceans are a vital part of life in the 49th state:
  - 1) Alaska has more coastline—44,000 miles—than the rest of the U.S. combined

- 2) Alaska is bordered by three seas—the Bering, Chukchi, and Beaufort—two oceans—the Pacific and the Arctic, and the Gulf of Alaska
  - 3) Alaska produces roughly half the seafood landed in the U.S.
  - 4) Sport fishing supports over 10,000 jobs annually
  - 5) A common local saying is: “When the tide is out, the table is set.” (Knowles)
- Today half of the nation’s population lives in coastal areas. By 2025, the figure will grow to 70%. Over 30% of the gross domestic product and 40% of the new commercial and residential development occurs on our coastlines. 95% of our international trade is shipped over the ocean and by 2010 the value of that trade will double to \$5 trillion. In the Magnuson Act the domestic fisheries is defined to be out to 200 miles. (Stevens)
  - Statewide, the fishing industry provides more private sector jobs than any other source and a large portion of coastal residents rely on marine resources for subsistence. [Further description provided.] (Robards)
  - Unlike oil and gas, if managed properly Alaska’s fisheries have the potential to be a perpetually sustainable asset to Alaska’s economy. (Robards)
  - Since 1990, over 70 Bering Sea crab fishermen have lost their lives in our nation’s most dangerous occupation. Once robust crab stocks have declined, and fisheries dependent coastal communities have suffered lost employment and diminished tax revenues. (Thompson)
  - GOAC-3 is a non-profit membership drive organization representing people who have made their living from the sea for millennia. There are 43 viable communities in the Gulf of Alaska with an approximate population of 44,000 people. These communities are almost totally marine dependent. This includes commercial, subsistence, recreational fishing, shellfish aquaculture, tourism, transportation, and offshore mineral development. (Vick)
  - Nature-based recreation like kayaking and “birding” is a booming industry. More businesses are competing to show that they’re going beyond producing goods and providing services to caring for nature. (Davis)
  - The marine angling community creates a large economic benefit to society. (Radonski)
  - Findings and goals and objectives for Value and Economic Benefits of Coastal and Ocean Resources. (CSO)

## **PRESENTER RECOMMENDATIONS**

- Government needs to assess coastal economy as carefully and completely as rest of the economy. Should be reporting standards for all sectors, like National Income and Product Accounts. Decisions about methodology and data collection must be at arms-length from government (Kildow)
- Assessment of the coastal economy requires continuous, reliable funding. (Kildow)
- Establish National Coastal/Ocean Economic Assessment; consistent data collection, analysis, storage and retrieval systems to assess impact of oceans on economy of coastal states and nation. (Nichols)
- Coastal economies best stimulated by: recovery of abundant fish populations; sustainable fishing policies; tradable fish-access quotas; health habitats and corals; attractive beaches. (Safina)
- Recognize the ocean generates incredible value to economy. (Murley)
- Empower communities through support of locally driven stewardship and management; simultaneously consult with watershed councils. (Berry)
- We must all protect the recreational and economic value of our beaches. Chicago tests daily the levels of e. coli bacteria at each of the city’s beaches to make sure they are safe for public use. (Jimenez)

- The OC must recognize our community's significant role in coastal communities' social and economic well-being. (Radonski)
- Value and Economic Benefits of Coastal and Ocean Resources (includes four specific recommendations). (CSO)

