

Stakeholder Meeting Hawaii –June 7, 2007

Meeting Summary

Background

The Coastal Zone Management Act (CZMA) of 1972 created a unique partnership between federal and state governments with the goal of balancing the conservation of coastal and Great Lakes environments with the responsible development of economic and cultural resources. Pending reauthorization of the CZMA has prompted discussion within the coastal community on ways to improve coastal management in the US. In response, the Office of Ocean and Coastal Resources Management of the National Oceanic and Atmospheric Administration (NOAA) and the Coastal States Organization (CSO) have undertaken a project to engage coastal managers and stakeholders to envision the future of coastal management. The goal of this process is to gather feedback on priority issues and innovative ideas for improving the CZMA and the National Coastal Management Program. The final outcome will be a set of core principles, a suite of options for revising the CZMA, and suggestions for other techniques that NOAA and the states may consider implementing for improved coastal management.

Introduction

The Hawaii meeting was the fourth in a series of five nationwide meetings being conducted under the initiative entitled *Envisioning the Future of Coastal Management*. Laura Thielen, Director of the Hawaii Office of Planning opened the meeting and introduced S. Haunani Apoliona, MSW and Chairperson of the Office of Hawaiian Board of Trustees. She provided an excellent overview of the coastal issues, encouraged the participants to be bold in their thinking, and offered words of encouragement for the day (Appendix A). Ralph Cantral of NOAA and Jena Carter of CSO gave a joint presentation on the initiative. The meeting was attended by 106 participants representing a broad range of interests, including government, energy, marine trades, research, recreation, economic development, agriculture, environmental conservation, and traditional management. After the opening presentation, participants broke into small groups to address the following topics: traditional uses, climate change, ocean uses, public access and waterfront revitalization, hazards, intergovernmental coordination, land use, habitat, and water quality.

Breakout Groups: New, Creative, Forward-looking Strategies and Solutions

In each breakout group, participants briefly discussed obstacles. Obstacles identified as common to coastal management were:

- Geography (coasts extend inland; misalignment of political boundaries and resource boundaries)
- Multiple Governments and Agencies (need for coordination among federal agencies, among levels of government, and within regions)
- Technical Complexity (issues require special knowledge, lack of sufficient data and maps)
- Funding Needs
- Competing Interests (multiple users, achieving balance, and setting priorities)

Participants then spent most of the day generating ideas for better managing the coasts and/or improving the CZMA. The meeting summary on the following pages provides highlights from each breakout group, including additional obstacles identified as specific to each breakout topic and solutions for better coastal management.

Next Steps

All of the ideas generated by meeting participants, including those not reflected in this summary, will be reviewed and considered by NOAA and CSO as they develop their proposed changes to the Coastal Zone Management Act. CSO and NOAA thank every participant for their time and for providing thoughtful input

Traditional Uses

OBSTACLES

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| Education | <ul style="list-style-type: none"> • There is no standard definition for “traditional uses”; it is a mix of diverse cultures and traditional practices. • There is little public awareness or political will to support traditional uses. |
| Legal Issues | <ul style="list-style-type: none"> • Not all traditional cultures have federal recognition of their sovereign status. • Ownership of resources has changed and many are now privately held. |
| Management | <ul style="list-style-type: none"> • Finding ways to incorporate both scientific knowledge and traditional knowledge in resource management can be complicated. |

BRAINSTORMED SOLUTIONS

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| Management and Planning | <ul style="list-style-type: none"> • Create opportunities for greater involvement of traditional fishing and fisheries management stakeholders in resource management decision-making, especially at the regional and local levels. • Include recognition of the value of cultural and traditional management in a findings section of the CZMA. • Empower local practitioners to play a role in resource management decision-making, including fishing organizations; boating and diving clubs; and regional, local, and village government officials so that needs of cultures and customary practice are represented. • The federal government should encourage states and territories to develop and implement ocean resource management practices that better reflect local interests and conditions. |
| Representation | <ul style="list-style-type: none"> • Mandate the creation of a decision-making seat on state commissions to represent native interests. • Goals, indicators, and performance measures for traditional management could help guide decision-makers. |
| Federal Agency Coordination | <ul style="list-style-type: none"> • Better coordination between National Parks Service, U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, and NOAA. They can have different mandates, but the same goal of protection. • The new CZMA should establish ecosystem-based management as a goal. |
| Integrated Approach | <ul style="list-style-type: none"> • The new CZMA should recognize, integrate, and facilitate traditional knowledge and customary practices into coastal management. • It should require agencies to consider native rights up front when making decisions about coastal and ocean uses. • Communities and native peoples should be consulted early in decision-making processes so that planning becomes a more community-oriented initiative. A citizen advisory board could be required as part of the decision-making process. • A regional approach should be taken to address the interconnectivity of island communities and increase their impact on CZMA and should include mechanisms that capture the traditional and cultural perspectives. |
| Education | <ul style="list-style-type: none"> • Traditional practitioners should educate policy makers, decision-makers, and school children (K-12) about traditional practices. • Educating school children and decision-makers about traditional management techniques and place-specific issues should be required by law. Traditional practitioners themselves should teach the courses and techniques. • NOAA should establish a marine education and training program that focuses on gathering and disseminating information, including traditional knowledge, in order to expand research and education opportunities. • The National Estuarine Reserve Research system should be expanded to include the Pacific Islands. • Partnerships between local governments and traditional communities should be strengthened. • There should be scholarships in natural resource management for native people. |

CLIMATE CHANGE

OBSTACLES

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| Data Needs | <ul style="list-style-type: none">• Climate change is a global problem, but it is defined locally.• More local information is needed.• More basic research is needed. Collection and sharing of oceanographic, atmospheric, bathymetric, and other geophysical data is insufficient. |
| Funding | <ul style="list-style-type: none">• Political issues and realities impact funding sources. |

BRAINSTORMED SOLUTIONS

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| Land Purchase Program | <ul style="list-style-type: none">• Create a land acquisition program to support the development of planning-based green belts that would provide a buffer zone between human development and coastal areas and encourage “retreat” from areas of high risk.• The program would be part of a post-disaster coastal hazards recovery program.• Appropriate lands would need to be identified and coastal areas assessed for their risk and vulnerability using mapping tools such as inundation maps.• Education of policy-makers and the public would build awareness and spur redevelopment in less vulnerable inland areas.• It would be important to decide at what level (county, state, federal) this program should be administered. Policies that are set at a national level are often hard to implement in island communities. |
| Mapping | <ul style="list-style-type: none">• Local, high-resolution maps would depict sea-level and sea-rise and provide more information on areas of risk and possible options to the public and decision-makers.• Inundation maps and local indicators, such as the timing of blooms, frequency and duration of flooded areas, sewer system functioning, cancellation of insurance coverage, etc. would serve as general education tools and guide policy-makers.• A process to manage LIDAR data, acquire high-resolution topography data, and monitor changes in real-time will need to be developed.• A carbon tax could be a funding source. |
| Model Legislation | <ul style="list-style-type: none">• CZMA revisions should mirror California legislation in areas of emissions standards, coastal zone management, and energy policies.• The reauthorization should provide a federal mandate and funding, and enable partnerships through which NOAA could work at a local level.• The new act should require integration of rules and regulations and establish a unifying concept/goal and provisions that allow different government agencies to effect change. |
| Science and Decision-making | <ul style="list-style-type: none">• Management should be science-based.• Policy-makers need to be better informed about locally-relevant scientific facts so that they can make better decisions.• A policy of “No Coast Left Behind” should be adopted. |

OCEAN USES

OBSTACLES

- Diverse Interests**
- Some resource-users oppose restricted access.
 - It is difficult to organize communities for collective action.
 - Different users have different priorities, including within Hawaiian culture and values.

BRAINSTORMED SOLUTIONS

- Community Management**
- Enact legislation or administrative regulations to allow for greater community control of resources and clear authorities.
 - Communities could use a modern equivalent of traditional ahupua'a management in which a konohiki or manager exercises strict control over access and use of resources for the alii class. The modern version would empower multiple people to engage in management.
 - Establish and enforce resource use limits based on science and local knowledge for greater local resource control, better community access to resources, and improved resource conditions.
 - Identify and define what "community member" means and what categories of people it includes.
- Student Engagement**
- Support on-the-ground conservation education for high school students so they can contribute to monitoring of resource conditions and become scientifically-literate conservation practitioners. Include reefs in science curriculum.
 - Increase incentives to participate in existing programs in which students monitor resources (and resource users) and learn practical strategies for conservation.
 - Partnerships with large conservation organizations could help address a dearth of administrative support and funding.
 - Explore partnerships with faith-based and extracurricular education programs.
- Comprehensive Planning**
- Create zones for all uses to reduce user conflicts and negative impacts of use. This could include multi-use and single use zones.
 - Facilitate ocean zoning and enforcement through an Ocean Zoning Plan.
 - The zoning process must be inclusive and work with existing public processes. Use new technologies, advisory boards, and innovative processes to get widespread public participation. Public education about the process and impacts is important.
 - Levy recreational use fees and penalties to help fund and enforce initiatives.

PUBLIC ACCESS & WATERFRONT REVITALIZATION

OBSTACLES

- Participation**
- It is difficult to get community citizen involvement.

BRAINSTORMED SOLUTIONS

- Public Access Criteria**
- When NOAA evaluates state CZM programs, public access to beaches should be used as an evaluation criterion. In addition, the CZMA should be amended to require participating states to achieve zero net loss of public access.
 - There is a need to evaluate different types of access, including pedestrian beach trails, harbors, and launch ramps, to make decisions about access priorities and actions.
 - Performance measures, goals, and funding incentives should be designed to encourage more and better maintained public access.
 - Considerations of access quality should include both vertical and lateral access to the shore. The CZMA should set a goal of maintaining adequate public access over time.
 - A special fund should be developed under the CZMA that is dedicated to the purchase of lands for public access.
 - Use Google Earth to share information about the location of public access sites with the public.
- Improved Harbors**
- Increase the number and quality of harbors for island communities.
 - Address the shortage of spaces for vehicle storage.
 - Acquire more monitoring and data collection on user characteristics, user needs from each harbor, and GIS data of current and historical access points.
 - Create a comprehensive community plan that is driven by the users.
- Parking**
- Institute a policy by which all actions that require a federal permit include some minimum ratio such as 2:1 or 3:1 of private to public parking at public access sites.
 - More data is needed on user trends, options for collecting and enforcing parking policies, and legal implications.

HAZARDS

OBSTACLES

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| Management | <ul style="list-style-type: none">• One size fits all policies are not appropriate for different physical settings.• There is economic pressure to develop in inappropriate areas.• There are international components of the hazards issue that need to be managed. |
| Technical Complexity | <ul style="list-style-type: none">• Public, developers, and policy-makers don't understand all of the technical complexities of managing for coastal hazards. |

BRAINSTORMED SOLUTIONS

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| Public-Private Sector Collaborations | <ul style="list-style-type: none">• Collaborate with insurance companies to identify areas at high risk, coordinate policies, and achieve common hazard mitigation goals.• Find ways to establish a stable insurance community that is more cost-effective for both policy-holders and insurance companies.• Share models to enhance common understanding of economic and technical conditions.• Explore options for working together on mutually beneficial policies, such as building codes or other regulations. |
| Require Hazard Zone Mapping | <ul style="list-style-type: none">• Map 100-year probabilities, including flooding, tsunamis, erosion, and sea level changes.• Use the data to improve understanding of spatial distribution of hazards and develop policies for targeted hazard zones and potential green zones that are based on scientific information.• Include hazard zone mapping as a requirement for state CZM programs.• Strengthen the Integrated Ocean Observing System. |
| Ecosystem Based Management | <ul style="list-style-type: none">• Create place-based, ecosystem-based management policies.• Develop regional shoreline management plans on a littoral basis rather than on a property-by-property or state-by-state basis.• CZMA should include sand-sheds as an area of particular concern and should mandate that states identify and develop plans for littoral cells.• Include communities in identification, decision-making, and implementation processes for hazards mitigation and planning. |

INTERGOVERNMENTAL COORDINATION

OBSTACLES

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| Communications and Support | <ul style="list-style-type: none">• Government is losing control of its message - the media or others often latch onto a topic and then the public takes it as fact.• There is a lack of political will. |
| Management and Planning | <ul style="list-style-type: none">• There is a lack of capacity at the local level with respect to technical information and the potential impacts of development.• Implementation and enforcement of laws and regulations can be difficult. |
| Legal Issues | <ul style="list-style-type: none">• Private property rights and other legal boundaries challenge policy-makers. |

BRAINSTORMED SOLUTIONS

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| Intergovernmental Advisory Committees | <ul style="list-style-type: none">• Establish island regional coastal area advisory/management committees comprised of federal, state, and county agencies with jurisdiction over the coastal area to discuss issues affecting the environment and opportunities to coordinate their efforts.• Must have enabling state legislation, approval by NOAA, funding, and clear objectives.• They could implement initiatives through CZM programs. |
| Value Determination Tools | <ul style="list-style-type: none">• Develop coastal “ranking” system for various development and erosion control measures that is based on the ecological value of beach resources.• Pristine coastal areas need additional zoning layers to protect the high-value beaches and “balance” development with resource protection.• Use GIS maps, user surveys, scientific classifications (from organizations such as The Nature Conservancy or laws such as the Clean Water Act), and community input to determine the value of resources.• Educate policy-makers and public about trade-offs. |

LAND USE

OBSTACLES

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| Dispute Resolution | <ul style="list-style-type: none"> • Mediation is not used enough to resolve conflicts. There should be more dialogue and efforts to find outcomes that work for multiple parties. Instead there are winners and losers. |
| Management and Planning | <ul style="list-style-type: none"> • Technology, ordinances, and codes are often out of date. • Not all voices are heard. Traditional knowledge is often excluded from decision-making. • Large tracts of land are owned by a few private owners. • Political changes impact land use decisions. • Community plans are not binding. |

BRAINSTORMED SOLUTIONS

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| Community Planning | <ul style="list-style-type: none"> • Community visions and plans should be given greater weight in land use decision-making processes. • Citizens should help develop and implement community visions and plans. • To achieve consistency and ensure a “whole picture” approach, infrastructure investment requirements should include consideration of community plans and island plans. • Encourage developers, through permits, to review community plans prior to decision making or moving forward. • Have a flexible definition of “community” to recognize that communities are different. |
| Funding for Property Acquisition | <ul style="list-style-type: none"> • Provide funding to compensate for takings or conveyance of significant lands. • Use taxes and incentives, such as a conveyance land tax, fuel tax, or tax incentives for conservation easements. In one Hawaii County, 2% of property tax goes to open space. • Clarify in federal law the constitutionality of the takings clause with regard to climate change, sea level rise, and other emerging problems. • Require that new development be accompanied by new conservation. |
| Smart Growth Coastal Zone Model | <ul style="list-style-type: none"> • Create a Smart Growth Coastal Zone Model, and improve land use ordinances. • Issue a federal mandate to all states to adopt programs based on the Hawaii 205A model. • Change land use ordinances to account for changing land use patterns. • Include or improve water quality protection mechanisms in local land use ordinances. Adopt a dynamic land use building setback requirement based on current knowledge and science. Develop watershed overlay districts at the county level to protect critical areas. Revise and rewrite ordinances and codes to provide flexibility for development to be “green.” • Collect scientific information and be sure it is included in the “smart growth code” and in the CZM and state program(s). |
| Integrated Planning | <ul style="list-style-type: none"> • Adopt total integrated island planning based on Mauka (toward the mountains) and Makai (toward the ocean) approaches. • Set federal goals and objectives for watershed-based management. • Allow citizen suits under the CZMA similar to the Clean Water Act. • Require states to revise their plans to incorporate climate change and sea level rise. • Acquire more baseline data and information to justify requirements. • Address scale issues, i.e. some regions are larger than others and will need more resources. |
| Financial Incentives | <ul style="list-style-type: none"> • Provide strong financial incentives for landowners to respect shoreline setbacks from coasts, streams, cultural resources, and natural resources. • Use federal and state tax incentives. For example, one might pay less in property tax for building in designated areas and more for building in high risk areas. Create a graduated tax whereby a higher tax rate would apply if you build in a high risk area. • The CZMA could require higher levels of insurance coverage in the coastal zone. Work through the Federal Emergency Management Agency to get insurance companies to adopt policies regarding insurance coverage for building in high erosion/high risk areas. • Consider offering sea-level rise insurance. |

HABITAT

OBSTACLES

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| Management and Planning | <ul style="list-style-type: none">• Communities fear management decisions made without adequate science- or place-based knowledge.• There is inadequate funding for enforcement of laws that protect habitat.• Loss of cultural resources and access to traditional knowledge about habitat. |
| Technical Complexity | <ul style="list-style-type: none">• There is inadequate data for making good decisions about habitat. |

BRAINSTORMED SOLUTIONS

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| Community-based Management | <ul style="list-style-type: none">• Habitat management decisions should involve multiple users and be made at the community level, instead of top-down.• This will result in a better enforcement and a better informed community.• Government would be reluctant to give up authority, and community organizing would be a challenge. Enforcement, incorporating multiple jurisdictions, and accessing adequate funding would also be difficult.• Require development of community-developed rules that must be approved by state natural resource agencies. Consider co-management with state agencies.• Create a Coastal Communities Network for communities information sharing.• Examples in Hawaii include Haena, Milolii and Moomomi.• Use facilitators who speak the appropriate languages and are from the community. |
| Improve Technical Analysis | <ul style="list-style-type: none">• Improve baseline habitat information by including historical and cultural knowledge. Provide better access to analytical tools like GIS.• Create a data-gathering protocol for local communities and require agencies that work with communities to use the data. Accountability is needed to ensure the data is used correctly. Establish legal authority that enables and encourages community-based technical analysis.• This could help overcome the difficulty of translating research findings for communities.• Ecological functions don't align well with budgetary funding cycles.• There is a lack of continuity of resource management staff over time.• Involvement of indigenous cultures is needed.• Look to users and visitors as potential funding streams.• Success will depend on the perceived usefulness of the data.• Set priorities for the types of tools to be used and analysis to be conducted.• Create a volunteer network to support those who collect data.• Successful examples in Hawaii include Haena, Milolii, Hanalei, Pupukeya, Moomomi, and site-specific baseline data collection being done by The Nature Conservancy at the request of two communities (Puako and Maunalua Bay), the West Hawaii Sea Grant ReefWatch program, Reef Check, Makai Watch, and a bottomfish tagging project. |

WATER QUALITY

OBSTACLES

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| Alienation of the Community | <ul style="list-style-type: none">• Because management is done by experts, community members are often unfamiliar with the concept of watersheds and with human impacts on water quality.• Communities are anxious to have a voice in the decision-making process, and currently do not. |
| Technical Complexity | <ul style="list-style-type: none">• Managing sewage (cesspools, septic) is difficult. |

BRAINSTORMED SOLUTIONS

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| Training and Education for Community | <ul style="list-style-type: none">• Improve technical capacity and increase resources for engaging local communities in stewardship and solving water quality problems.• Fund extension agents to help develop local action strategies. Could extension agents function as watershed agents, as they do in North Carolina?• Train young people about water quality and provide work opportunities through internships. Support degree programs in water quality management. Educators need to teach about uses of water resources, options for management, and shared responsibility over water quality. Training positions need to be funding instead of only relying on volunteers.• Increased education may lead to increased, place-based engagement by stakeholders. For people to value water quality, they need to understand how it impacts daily life.• Encourage communities to identify those aspects of good water quality that are important to them.• Hanalei, HI has used place-based, indigenous knowledge effectively.• An integrated, inter-disciplinary approach that includes traditional, educational, economic, social aspects is needed.• Provide federal matches for funding from state-level departments of health. |
| Improve Baseline Data | <ul style="list-style-type: none">• Invest in scientific and community-based data that can be used to establish water quality baselines and standards.• Include anecdotal evidence (peoples' memories of how the water was in the past) in determinations of water quality standards.• Maintain long-term habitat, stream-flow, and other data sets.• Enact comprehensive water quality management. Stop divided management where one agency looks at contaminants and another looks at how water quality affects fauna.• Waipa, HI is a success story of cohesive management. |
| Joint Agency Water Quality Management Plans | <ul style="list-style-type: none">• Agencies with common goals and mandates should work together to achieve mutual goals through coordinated efforts and joint formulation of water quality management plans.• This would reduce the overall number of plans and unify and coordinate approaches. It would also ease funding problems by pooling resources to address basic research and planning needs.• Create specific memoranda of understanding (MOUs) between the federal government, states, and counties that are focused on total maximum daily loads, for example. Perhaps governors would sign the MOUs.• Promote non-regulatory approaches in these plans, such as the Salmon Safe campaign.• Sustained funding would be required or the coordination will end when the funding does.• Use or create state ocean resource management plans for implementation. |

APPENDIX A

Envisioning the Future of Coastal Management
National Oceanic and Atmospheric Administration
Coastal States Organization
Remarks of Trustee S. Haunani Apoliona, MSW
Chairperson, OHA Board of Trustees
June 7, 2007
University of Hawai'i at Mānoa

Aloha mai kākou, e nā ʻyōiwi ʻyōlino mai Hawai'i a Ni'ihau a puni ke ao mālamalama. Aloha e nā kūpuna, nā mākuā a me nā ʻyōpio. Aloha e nā kama'āina a me nā malihini kekahi. Aloha nō kākou a pau loa.

Translation: Greetings to our esteemed fellow Native Hawaiians from Hawai'i to Ni'ihau and around this brilliant world. Aloha to the elders, adults, and youth. Greetings to long time residents and newcomers alike. Aloha to you all!

I want to begin by expressing my thanks to NOAA and the Coastal States Organization for hosting this meeting, and for bringing this nationwide meeting series to Hawai'i so you can hear from us islanders. Mahalo, also to the Hawai'i State Office of Planning for inviting me here today.

The solicitation of the expertise of Hawai'i's people, is crucial to improving the way in which our nation manages its coasts and ocean resources. And it is crucial that all in national government remember that the contour of the 50 states of the Union reach 3,000 plus miles into the Pacific Ocean.

My name is Haunani Apoliona and I serve as the Chairperson of the Board of Trustees of the Office of Hawaiian Affairs (OHA), a body corporate established in 1978 by the Hawai'i State Constitution and implementing statutes.

OHA has a very broad mandate. Nine Trustees elected by all voters in Hawai'i have Constitutional and statutory mandates requiring us to work to better the conditions of Native Hawaiians. OHA's mission statement is to *mālama* (protect) Hawai'i's people and environmental resources and OHA's assets, toward ensuring the perpetuation of culture, the enhancement of lifestyle and the protection of entitlements of Native Hawaiians while enabling the building of a strong and healthy Hawaiian people and nation recognized nationally and internationally".

The management and protection of marine and ocean resources and coastal waters is of central importance to OHA on behalf of our community and all of Hawai'i. We believe that we have an important leadership role in addressing environmental issues because our coasts and oceans support our people, and hold great cultural importance to the Native Hawaiians, the aboriginal, indigenous, native people who settled and governed these lands long before there was a United States.

You are here in Hawai'i, gathering from across the nation to Envision the Future of Coastal Management; to give voice to enlightened approaches and solutions to improve national policy in the area of coastal zone management.

By coming to Hawai'i you have stepped into our island environment, non-contiguous land masses with unique characteristics, limited natural resources (terrestrial and marine), a finite land base, surrounded by ocean waters.

Companion to this awareness, should come the knowledge of the significant role Native Hawaiian tradition and culture deserve to play in the life and well-being of these islands.

I am here today to encourage, no, to challenge you, to be active listeners, far reaching in your vision, and willing to consider that innovation, is really about returning to fundamental values and principles embodied in aboriginal, indigenous, native tradition and practice relating to coastal zone management; and the interdependence between humanity and environment.

I am here today to challenge you to remind the Congress that in reauthorizing the Coastal Zone Management Act, they must not confine or limit their thinking to coastal states on the continent, alone, but must extend their considerations to address the needs of our archipelago, our island state of Hawai'i.

Also consider taking the bold step of conferring with other Pacific Island leaders from Guam, American Samoa, Republic of the Marshall Islands, Federated States of Micronesia, Commonwealth of the Northern Marianas, Republic of Palau as a “must do” task. And other Pacific leaders (Solomon Islands, Papua New Guinea, Republic of Nauru, Republic of Kiribati, Republic of Fiji Islands, Tonga, Republic of Vanuatu, Tuvalu).

The aboriginal, indigenous people of Hawai'i have a profound connection to the ocean. From our traditional creation chants, we affirm that life forms began in and emerged from the ocean.

Here in Hawai'i our coasts and our oceans are not only the source of our commercial and recreational activities, for the indigenous people of Hawai'i, the coast is a place of great cultural significance.

The spiritual well being and physical well being of Native Hawaiians are intrinsically tied to the land and the sea.

When envisioning the reauthorization of the CZMA we can gain knowledge from the coastal and land management practices that the indigenous people of Hawai'i have practiced since settling Hawai'i millennia ago.

Prior to the arrival of the first Europeans in 1778, the Native Hawaiian people lived in a highly organized, self-sufficient, subsistence social system, based on communal land tenure with a sophisticated language, culture, religion and with excellent science, engineering, and navigational skills.

Native Hawaiian tradition and culture strives for *lōkahi*, that is a balance between man, nature and god. In that kind of focus and discipline, Native Hawaiian tradition and practice precedes the arrival of the term “sustainability”. Such has been the pathway of aboriginal, indigenous native people.

Native Hawaiians, for generations, survived and thrived because of the wise traditional practice in managing land and natural resources of the *ahupua'a*.

The *ahupua'a*, the Native Hawaiian land division, stretched from the top of the mountain (*mauka*) to the ocean (*makai*), and considered all lands and natural resources in between.

This land division provided for a rich ecosystem recognizing and utilizing the interconnectedness of all environmental, social, economic, land and marine features for the health and well being of its inhabitants. The system required maintaining a balance in that ecosystem by replacing things taken and reconstructing areas spoiled or defaced by human activity.

The health of the sea is dependent upon the health of the land, and the health of both measure the health and survival of the people.

Unlike other coastal areas in the United States where individual environmental issues can be addressed separately, that is not the case in Hawai'i. No point in the Hawaiian Islands is more than 29 miles from the shore.

Nearly all of the state's 1,052 miles of coasts are affected by activity that occurs inland. In Hawai'i we know that deforestation, soil erosion, poor water quality and coastal management are all interconnected issues.

In our ocean-encircled island state, the vision for coastal management must be approached holistically.

Today, when envisioning how to address Coastal Management issues, I would urge you to be very mindful of the uniqueness of our island state.

I would urge you to approach Hawai'i Coastal Management with a broader vision than is the practice on the U.S. continent. In reauthorizing the CZMA, we must be mindful of the geological characteristics and cultural integrity of our Hawai'i home and our Pacific surroundings.

We must also extend our far reaching vision to adequately plan for the future of rising sea levels here in Hawai'i.

Adequate coastal planning for rising sea levels is both important and urgent. The Hawaiian and Pacific islands coasts are already committed to a significant amount of global warming and sea level rise because of the greenhouse gases we have already put into the atmosphere.

Much of Hawai'i's economy is coast based, whether through tourism, commercial fishing, etc. There is a risk that due to rising sea levels, Hawai'i's economic success will be placed in jeopardy.

The future of our economic development is largely reliant upon the protection and management of our coastal resources and is central to our continued economic success in our island state.

In addition to economic risks, population increases, receding shorelines and increased sea levels will have significant long-lasting impacts on our fragile ecosystems such as Hawai'i's coral reefs and on our Native Hawaiian and coastal communities.

Without adequate planning, Hawai'i may soon suffer a fate similar to indigenous people from the Islands in the South Pacific, whose ocean is reclaiming their lands. For this reason, we must act now before these climactic and tidal changes leave any of our people displaced.

We need to inspire a sense of urgency in those land-bound states and better educate Congressional Representatives, Senators and leaders to provide funding and legislation that will provide qualitative assessments of how coastal ecosystems are likely to respond to the projected rise in sea level and other climate change effects.

On behalf of the Office of Hawaiian Affairs, I continue to urge you all to be far reaching in your vision. In envisioning amendments to the CZMA, I urge you to remember and consider the physical island differences as well as the cultural differences of the communities here in Hawai'i.

Mahalo for being actively involved in developing the solutions to our Coastal Management Issues. Your visioning is urgent, our requirements unique, the far-reaching outcomes can and will be universal models for regions far beyond Hawai'i.

Mahalo and Aloha.