

Testimony on Coastal Zone Reauthorization Amendments of 2008
Presented to the House Subcommittee on
Fisheries, Wildlife, and Oceans
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On Behalf of the
National Estuarine Research Reserve Association
Presented by Jaime C. Kooser, President of the Association

Introduction

Chairwoman Bordallo and Members of the Subcommittee, thank you for the opportunity to testify today on behalf of H.R. 5451, the Coastal Zone Management Act Reauthorization Amendments, and related coastal amendments. My name is Mike

De Luca and I serve as the Legislative Director for the National Estuarine Research Reserve Association (NERRA). I also manage the Jacques Cousteau National Estuarine Research Reserve and serve as the Senior Associate Director of the Institute of Marine and Coastal Sciences at Rutgers University. With the broad expertise in working waterfronts, climate change, and coastal renewable energy represented by the other witnesses today, my comments will focus primarily on H.R. 5451. I will emphasize the importance of regional approaches to coastal management, the need to capitalize on emerging ocean technologies for coastal applications, and the importance of broadening efforts to build capacity among the coastal management community and engage the public in stewardship of our coasts.

Appended to my testimony is a draft NERRS subtitle for consideration in the CZMA developed by NERRA. The draft aims to codify core programs established since the last reauthorization of the CZMA, establishes a regional role for the NERRS to leverage the capabilities of protected area networks on behalf of regional coastal and estuarine conservation issues, and seeks support for technologies for research and monitoring, education and training, and stewardship activities. I respectfully request that this Appendix and my complete written statement be included as part of the written record.

National Estuarine Research Reserve Association

NERRA is dedicated to science-based management of our nation's estuaries and coastal systems, and serves as the primary advocate for the National Estuarine Research Reserve System (NERRS), a network of 27 (soon to be 29) regionally-based programs representing diverse estuarine and coastal ecosystems throughout the U.S. and its territories. Through a state-federal partnership codified in the Coastal Zone Management Act, the reserves play a critical role in national efforts to sustain healthy estuaries and coastal communities. NERRA strongly supports amendments to the CZMA that enable coastal states and communities to protect coastal resources in the face of a rapidly shifting environment and new demands for renewable energy resources.

Comments on CZMA Reauthorization Amendments

Much has changed since the CZMA was last authorized in 1996. Devastating storms, natural disasters, declining natural resources, booming population growth along the coast and changing climate have altered the pace and scope of environmental change. This has led to alteration and loss of coastal resources, and degraded water and habitat quality throughout much of the nation's coastal zone. The rapid pace and scale of change demands regional approaches to coastal conservation, use of innovative technology, broad efforts to build capacity among coastal

decision-makers, and heightened public awareness to engage citizens in active stewardship of our coasts. Collectively, these actions can help to reduce the vulnerability of coastal resources and communities to unwanted change, but will require substantive resources.

Regional Approaches to Coastal Conservation

The broad national mandates that constitute the CZMA are administered through state-based programs. Many successful coastal management strategies, tools, and programs have resulted from past support. Successes, as well as some failures, are shared through a variety of information and learning networks. Today, an increasingly broad suite of regional environmental issues transcend state boundaries and bear on coastal ecosystem health, and the quality of life and economic vitality of coastal communities. These include sediment and water contamination, fishery management, nutrient enrichment, declines in natural resources, habitat loss, beach erosion, and harmful algal blooms.

A myriad of government, academic and private agencies and institutions deliver coastal programs and services at many scales. Two excellent regional mechanisms have emerged to coordinate coastal activities in the Gulf of Mexico and on the West Coast-- the Gulf of Mexico Alliance and the West Coast Governors' Agreement on Ocean Health. Although relatively new, these organizations show promise as regional conveners and a means to leverage resources on behalf of regional coastal issues. Long-term support will be required to stabilize these organizations and to foster similar approaches in other coastal regions.

Broader regional networks also are in place that coastal managers can capitalize on to align technical capacity with regional needs. One example is the Regional Associations created to implement the integrated ocean observing system. User needs and management priorities vary from region to region and the Regional Associations are presently engaging a broad representation of industries, government at all levels, academic institutions, and the public. Broader representation from the coastal management community is needed in the leadership of these and other regional structures to focus capacity on regional coastal issues.

It should also be noted that the NERRS have expressed strong interest in leading efforts to leverage the capabilities of protected area networks to address regional coastal and estuarine conservation issues. Capabilities that could benefit these networks include mapping and characterization of marine and coastal protected areas, engagement of citizens in stewardship of marine and coastal protected areas, and building capacity of coastal managers to conserve, manage and protect coastal and estuarine ecosystems.

Innovative Technology

Advances in undersea research and technology have enabled us to enter a new era in oceanography—that of the well-sampled ocean. New samplers, sensors, autonomous vehicles and ocean observatories now allow us to sample the ocean at time and space scales never before achieved. Technology development, including development of samplers and sensors for the emerging network of ocean observing systems, represents an opportunity for the coastal management community. Emerging technologies such as coastal ocean observing platforms and autonomous undersea vehicles have begun to provide timely information on coastal processes. When complete, this system will enable integration of real-time physical and biological data from chemical, optical, and acoustic sensors, satellites, undersea robots, and a high-frequency radar system for synoptic measurement of surface currents. Real time data from arrays of sensors and forecast models will be used to mitigate the effects of flooding and erosion from hurricanes, tsunamis, and other severe storms. The sources, fates, and effects of pollutants will be better

understood using better means of tracking sediments and pollutants in the ocean. High resolution surveys of ocean habitat using autonomous underwater vehicles, and use of the observing system will advance tracking and sampling of fish populations. The maritime, coastal recreation, and power industries require accurate forecasts to maintain efficient and reliable operations. All coastal stakeholders will benefit from better observations of our coastal ocean surroundings.

As a result of observing system technology, efforts are under way to develop a predictive capability to enable resource managers and coastal decision makers to use science-based decisions to address management issues. The success of these efforts will benefit from expansion of the estuarine components of the observing system (e.g., NERRS System wide Monitoring Program), provision of technical assistance to develop coastal information products in response to management needs (e.g., scale up of the NERRS Coastal Training Program), and use of regional networks to bring the capacity of the science and technical community to bear on the needs of the coastal management community.

To date, technology development efforts at NOAA have been driven by operational research needs in the ocean and Great Lakes, and the undersea research needs of the academic community. This has led to development of an impressive inventory of undersea assets and capabilities in response to scientific demand. A mechanism is required to harness this capacity on behalf of pressing coastal issues. One approach is to align the capabilities of the National Undersea Research Program with the information needs of coastal managers. This can be accomplished in a number of ways, but certainly could benefit by inclusion in the CZMA.

Build Capacity Among Coastal Decision-makers

One of the most significant challenges in managing the nation's coasts today is the need to link science-based information to local coastal communities. Decisions made by coastal communities can have profound, long-term consequences for estuarine and coastal environments. Issues such as nonpoint source pollution, stormwater management, fisheries management, habitat loss and alteration, and shoreline management are the subject of constant debate by the public, the media, and coastal decision-makers. A common feature of these debates is the need for better information and training about the coastal environment. Elected officials, land use planners, regulatory personnel, coastal managers, and agricultural and fisheries interests are key decision makers who often do not have adequate access to relevant science-based information, training, or available technology to make informed decisions affecting the coast. Building on past success with services for coastal decision-makers (such as workshops on global climate change or the transfer of management-oriented research to coastal decision-makers in many states using an interactive format via the Internet), the NERRS has developed a Coastal Training Program (CTP) to meet this need.

The CTP enhances existing NERRS training delivery systems to provide the best available science-based information, tools, and techniques to individuals and groups that are making important decisions about resources in coastal watersheds, estuaries, and nearshore waters. Programs have taken the form of workshops, seminars, distance learning, technology applications and demonstrations. Opportunities for information exchange and skill training are expanding coastal management networks and collaboration across sectors, and improving local understanding of the environmental, social, and economic consequences of human activity in the coastal zone. These programs also make use of field experiences, relevant research and monitoring, and facilities provided by the site-based reserves.

The CTP was designed to increase the current capacity of Reserves to deliver technical training services to under-served constituent groups. Reserve staff continues to work closely with State

coastal programs and others to identify critical issues in the region and key coastal decision-makers that could benefit most from relevant science and training. Participants in CTP have included state and local elected and appointed officials, agency staff, volunteer boards, members of NGOs, business organizations, and state and regional professional associations whose daily decisions impact coastal resources.

Reserve staff implements the CTP in partnership with national and local organizations. At the national level, NOAA's Estuarine Reserves Division provides strategic and budget planning and support in partnership with NOAA's Coastal Management Programs, Sea Grant, and the Coastal Services Center. At the local and regional levels, individual Reserves are developing CTP partnerships with State coastal programs, Sea Grant programs, local universities and researchers, professional organizations, local government agencies, non-profit organizations, and a variety of others with expertise, skills, training sites, and logistical support. Support is needed particularly to support delivery of CTP programs at these regional scales.

Citizen Engagement in Coastal Stewardship

Many of us in the hearing room today are well aware of the value of coastal resources to the environmental quality and economic vitality of coastal communities. What continues to be surprising though is the general lack of awareness of this value among the public, especially those who reside in or vacation in coastal areas. My home state of New Jersey has 130-miles of shoreline and our beaches receive millions of recreational visits annually. Despite our close connection to the shore for recreation, and its dramatic effect on our weather, recreation, and economy, New Jersey students are not required in the state science education standards to learn about our coasts and oceans. In general, concepts and topics about the coastal ocean are hardly taught in K-12 schools, and rarely appear in a meaningful way in curriculum materials, textbooks, assessments or standards. The burden of advancing coastal and estuarine literacy is increasingly the responsibility of the coastal and estuarine science and management communities and educators who are willing to teach "outside the box."

Many of us are very familiar with grass roots education efforts that have made a difference with recycling programs, litter control, seat belt use, and cigarette smoking to name a few. The common denominator among these programs was heightened awareness about how changes in individual behavior could produce broad societal benefit. Support for broad national efforts is needed to increase understanding and awareness of estuarine systems and improve decision-making among key audiences (K to Gray) to promote stewardship of the nation's coastal resources. Many excellent programs exist at the local and state levels, but lack the resources and delivery system to scale up nationally, and to be made regionally relevant. Formal and informal education and interpretation programs must be tailored to key audiences around priority coastal resource issues and incorporate science-based content. We must also make new technologies and real time, real world coastal science information accessible to the classroom and the general public. Programs such as the CoolClassroom that harness real-time data streams from ocean observing systems for classroom applications are good models. These programs do not have to be created; they just have to be tailored to coastal issues. These programs do not have to build new administrative structures; they just need to be advanced in partnership with existing organizations such as the National Marine Educators Association, Centers of Ocean Sciences Education Excellence and the NERRS.

Summary Recommendations

NERRA offers the following recommendations in support of CZMA Reauthorization.

- Codify the research and monitoring, education and coastal training, and stewardship programs as core elements of the NERRS.
- Establish a role for the NERRS to lead efforts to leverage the capabilities of protected area networks to address regional coastal and estuarine conservation issues
- Authorize traditional funding for construction and land acquisition as a core NERRS element
- Authorize funding for technologies for research and monitoring, education and training, and stewardship activities.
- Provide incentives for regional approaches to coastal management
- Capitalize on emerging ocean technologies for coastal applications
- Align the capabilities of the National Undersea Research Program with the information needs of coastal managers
- Broaden efforts to build capacity among the coastal management community
- Broaden efforts to engage the public in stewardship of our coasts
- For grants under section 315, authorize funding for FY 2009 at a level of \$40 million for operations, \$15 million for construction, land acquisition and improvement, and technology, and \$10 million for regional coordination, with authorized levels increasing in the out years per the attached appendix.

With respect to authorization levels, the annual appropriation for the NERRS has remained flat since FY 2002 when the budget was \$ 16.4 million. Costs for operations and the addition of new sites have impeded efforts to expand existing successful programs (SWMP and CTP) in response to growing demand, and have stifled growth of system wide initiatives such as KEEP, an emerging K-12 education program. Two additional sites may be designated soon compounding the static budget situation even further.

H.R. 5452 Coastal State Renewable Energy Promotion Act of 2008

This represents a laudable effort to survey coastal state and federal waters to assess areas for potential development of renewable energy sources. Data to be collected, such as hydrographic and bathymetric surveys, characterization of sensitive marine ecosystems, and surveys of existing marine uses will have many other uses beyond the intent of this amendment. Given the need to develop regional approaches to coastal management, and the value of these types of data for regional programs, the amendment should direct the Secretary to establish consistent standards for data collection to optimize use and value of the data.

NERRA also notes that the cap on annual grants of \$750 thousand may not be suitable to survey certain areas that are relatively inaccessible to conventional survey equipment. For example, the Hudson Submarine Canyon off the coast of New Jersey and New York requires advanced undersea technology to sample and survey. A single cruise to this important marine ecosystem may easily exceed the proposed cap.

NERRA also notes that a bill to authorize integrated ocean mapping is pending in Congress. Mapping and survey activities conducted under the authority of these two bills should be coordinated.

H.R. 5453 Coastal State Climate Change Planning Act of 2008

Climate change has been an issue of strong interest for the NERRS, especially in relation to the role of reserves as long-term reference sites. The NERRS receive regular consideration by funding agencies as preferred systems in which to conduct long-term research. This is based

primarily on the relatively low level of human disturbance at reserve sites, history of targeted research on estuarine variability, and the commitment to a long-term monitoring program that helps to characterize the natural variability that governs structure and function of estuarine ecosystems. NERRA recommends that the amendment recognize the role that reserves can play as pilot and demonstration sites for adaptive management strategies for climate change. Coastal states should be encouraged to capitalize on reserve sites for this purpose, as well as for assistance with training programs that can be supported by the existing Coastal Training Program and monitoring programs that can be informed by the existing System wide Monitoring Program, the only national monitoring program for estuaries in the U.S.

H.R. 3223 Keep Our Waterfronts Working Act of 2007

Working waterfronts have increasingly become difficult to sustain with rising property taxes and competing interest from private developers to build residential, waterfront properties. Many benefits are derived from working waterfronts and a grant program to help preserve, protect and expand access for this stakeholder group is certainly warranted. Inclusion of a public access requirement in the vicinity of a working waterfront is a good and necessary element of a working waterfront plan.

Closing

Reauthorization of the CZMA provides an opportunity to enhance the capabilities of coastal communities by:

- Providing effective regional mechanisms and harnessing new technologies to meet information needs
- Strengthening the capacity of the state-federal partnership to support research and monitoring, education and coastal training, and stewardship efforts relevant to local, state and especially regional needs, and
- Improving the access and delivery of science-based information to build capacity to forecast and inform community responses to changes in coastal systems.

Existing capabilities within the NERRS, combined with regional approaches to coastal management and application of emerging technologies to coastal management issues can help build science-based capacity for decision-making, actively engage the public in coastal stewardship, and enable us to make informed decisions with respect to the dynamic drivers that govern change and stability in our coastal systems.

I'd like to thank Chairwoman Bordallo and members of the Committee for the opportunity to present testimony on behalf of amendments to the Coastal Zone Management Act. I will be pleased to answer any questions the Committee may have at this time.

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Appendix NERRS Subtitle for inclusion in CZMA Reauthorization

Title I. The National Estuarine Research Reserve System

1/23/08

1. Purpose

The purpose of this Title is to support science-based management of the nation's coastal and estuarine systems through a national network of estuarine research reserves. The network shall play a critical role in efforts to improve the understanding, management, and protection of coastal and estuarine resources. Each reserve shall conduct research, monitoring, education, training and stewardship programs tailored to meet local, regional, and state information needs. Reserve programs shall support coastal management through a process that engages a diverse community of coastal stakeholders, and that complements or supports the state-based coastal zone management programs.

2. Establishment and Responsibilities of the National Estuarine Research Reserve System

A National Estuarine Research Reserve System (hereinafter referred to as the "Reserve System") is established as a state-federal partnership program between the National Oceanic and Atmospheric Administration (hereinafter referred to as NOAA) and the coastal states. The Reserve System shall be dedicated to science-based management of our nation's estuaries and coastal systems, and shall represent the diverse estuarine and coastal ecosystems throughout the U.S. and its territories. State-federal cooperation shall be used to develop system-wide plans, partnerships, initiatives and any other national activities of the Reserve System.

The Reserve System consists of those estuarine research reserves designated under section 3 of this act and in operation as of January 1, 2008.

Primary responsibilities of the Reserve System are to:

- Deliver science-based information to local, state, and national decision-makers to further the sound management of coastal and estuarine resources and communities,
- Serve as a national model for the stewardship of coastal and estuarine resources and best management practices using a system of protected areas,
- Support research and monitoring relevant to local, regional and national needs,
- Provide effective mechanisms to assess the research, technology and information needs of coastal communities at local and regional scales, and
- Increase the nation's awareness of coastal and estuarine environments through education programs for educators, students, adult learners and the public.

3. Designation of National Estuarine Research Reserves

As of January 1, 2008, the Secretary may designate a coastal and estuarine area as a national estuarine research reserve if –

- the Governor(s) of the coastal state(s) nominates the coastal and estuarine area for such designation,
- the Secretary finds that
 - the area is a representative coastal or estuarine ecosystem that is suitable for long-term research, monitoring, education and training, and stewardship, and contributes to the biogeographical and typological representation of the Reserve System,
 - existing state laws provide adequate, long-term protection of reserve ecosystems including relevant watersheds and coastal ocean areas, and ensures a stable environment for research, monitoring, education and training, and stewardship,

- the reserve designation will promote public awareness and understanding, science-based actions and decisions, and provide suitable opportunities for public education, interpretation, and training,
- the coastal state(s) in which the reserve is proposed has complied with any regulations promulgated by the Secretary to implement this section.

The Reserve System shall be complete when there is at least one reserve in each coastal and Great Lakes state. Coastal and Great Lakes states with more than one major biogeographic region may establish an additional reserve(s) to represent these areas.

4. Research and Monitoring

Research

The Reserve System offers a wide range of relatively pristine estuarine environments in which to conduct both basic and applied research, and provides a stable capacity for research through long-term protection of coastal and estuarine resources. An overarching priority for the Reserve System shall be to collaborate with scientists to conduct and support research activities within reserve boundaries and adjacent areas that address significant coastal management concerns through coordinated research and monitoring, and to make results of this research available to inform science-based management of coastal and estuarine systems.

Research and monitoring efforts of the Reserve System shall focus on integrating themes that can be addressed at local, regional and national scales in response to coastal resource management needs. Examples of integrating themes include but are not limited to:

- Estuarine and coastal ecosystem response to climate change;
- Land-sea-air linkages and interactions with estuarine and coastal ecosystems; and
- Human interactions with estuarine and coastal ecosystems.

Site-specific research and monitoring programs shall be directed at improving understanding of ecosystem function and responses, restoration success, anthropogenic impacts on critical estuarine resources, and human health connections to these resources. Reserve education and training programs shall ensure that findings from the research and monitoring programs are incorporated into timely education and outreach materials and workshops.

Monitoring

The Reserve System shall establish and maintain a System-wide Monitoring Program to advance knowledge of coastal and estuarine ecosystem function, detect trends in water and habitat quality, support ecosystem modeling, science-based ecosystem management, education and training programs, and to serve as a reference site for long-term studies. The System-wide Monitoring Program shall be designed to identify short-term variability and long-term trends in coastal environmental quality and health at national, regional, and local levels, and focus research efforts on three critical areas: 1) coastal and estuarine water quality, 2) coastal and estuarine biodiversity, and 3) coastal and estuarine land use and habitat change. System-wide monitoring data collected by the Reserve System shall be managed and accessed via a central repository and made available to state and federal agencies, universities and coastal communities.

The System-wide Monitoring Program shall be operated as a backbone element of the nation's coastal ocean observing system, support development of information products for coastal managers and stakeholders, and support enrichment of science education and public awareness of coastal and estuarine issues.

The Reserve System shall establish and maintain training opportunities for graduate students including the conduct of research that responds to coastal management priorities identified by the Reserve System and individual reserves.

Results of research and monitoring programs shall be synthesized on a periodic basis for the coastal management and research communities.

5. Education and Coastal Training

Education

The Reserve System shall establish educational programs for K-12 educators and students, adult learners, and the general public to enrich science education, advance ocean literacy and raise awareness of coastal and estuarine issues. The Reserve System shall support education opportunities for the next generation of coastal and estuarine researchers, educators, natural resource managers, and the public.

Coastal Training Program

The Reserve System shall establish and maintain a Coastal Training Program to build capacity of coastal communities to address issues of coastal protection and development, meet the need for science-based information to inform coastal decision-making at the federal, state, and local levels, and to improve local understanding of the environmental, social, and economic consequences of human activity in the coastal zone. Specifically, the Coastal Training Program shall advance science-based management of coastal and estuarine ecosystems, build technical capacity and transfer best management practices to the coastal management community. This program shall respond to coastal management needs at national, regional, and local scales.

6. Stewardship

The Reserve System shall provide long-term protection of natural resources within a national network of protected areas, serving as a model for sustainable management practices to coastal communities. Stewardship efforts shall be conducted through an integrated program involving protection, management, and restoration of estuarine and coastal ecosystems and their associated uplands.

Stewardship efforts of the Reserve System shall focus on integrating themes that can be addressed at local, regional and national scales in response to coastal resource management needs. Examples of integrating themes include but are not limited to:

- * Effects of invasive species,
- * Restoration science, and
- * Public use of coastal and estuarine habitats and resources.

7. Technical Assistance

The Reserve System shall provide science and technical assistance to improve the capacity of coastal communities to protect and conserve coastal resources through research and monitoring, education and training, and stewardship programs. Where suitable, these programs shall be conducted in collaboration with relevant partners to leverage resources, complement the mutual interest of other protected area programs, and to avoid duplication of effort. Particular emphasis should be given to partners that manage marine protected areas, and to partners that have coastal management responsibilities. Support shall be provided by the Secretary to foster interagency collaboration on coastal management programs, activities and services, and to support seamless networks of marine protected areas.

Cooperative Institute for Coastal and Estuarine Environmental Technology

The Cooperative Institute for Coastal and Estuarine Environmental Technology shall collaborate with the Reserve System to develop and apply innovative coastal and estuarine technology, and to support the development, application, training, technical assistance, and transfer of coastal management technology, information, and practices.

Coastal Service Center

The Coastal Service Center at NOAA shall collaborate with the Reserve System to develop and apply innovative coastal management products and services, and to support the development, application, training, technical assistance, and transfer of coastal management products, information and services.

Regional Associations of the Integrated Coastal Ocean Observing System

The Regional Associations of the Integrated Coastal and Ocean Observing System shall cooperate with the Reserve System to develop and apply information products and services in response to the needs of coastal managers, and to support development, application, training, technical assistance, and transfer of coastal information.

8. Promotion and Coordination of the Reserve System

The Secretary of Commerce shall take such action as is necessary to promote and coordinate the use of the Reserve System for research and monitoring, education and training, and stewardship purposes including:

- Requiring that NOAA give priority consideration to research and monitoring, education and training, and stewardship activities that use the Reserve System to conduct or support activities that relate to coasts and estuaries,
- Consulting with other federal and state agencies to promote use of one or more reserves within the Reserve System by such agencies when conducting research and monitoring, education and training, and stewardship activities, and
- Establishing partnerships with other federal and state agencies to coordinate and collaborate when conducting estuarine research and monitoring, education and training, and stewardship.

9. Construction, Land Acquisition and Improvement, and Technology

Designated reserves shall acquire and improve property, and construct and renovate facilities to strengthen protection of key land and water areas, enhance long-term protection of the areas for research and education, and provide for facility and exhibit construction to further education and research goals. Designated reserves shall also acquire, upgrade and operate major equipment in support of system-wide programs and site-specific programs.

A competitive process shall be established to support construction and renovation of core facilities and capabilities for the Reserve System in support of research and monitoring, education and coastal training, stewardship, and interpretation programs, activities and services. Similarly, a competitive process shall be established for land acquisition and improvement to add key land and water areas essential to conserve, manage and protect ecological integrity of reserves, including adjacent watersheds and coastal ocean areas. The Reserve System shall also establish a mechanism to support acquisition, replacement and upgrading of equipment, and operation of shared major equipment for research and monitoring, education and coastal training, and stewardship programs and activities.

The Reserve System shall establish, maintain, and periodically update priorities for the construction and renovation of facilities, the acquisition and improvement of key land and water areas, and the acquisition, upgrading or replacement of equipment vital to research, environmental monitoring, and education.

10. Regional Coordination

The Reserve System shall lead efforts to leverage the capabilities of protected area networks to address regional coastal and estuarine conservation issues. Existing mechanisms shall be used where possible to:

- support a seamless network of marine and coastal protected areas
- map and characterize marine and coastal protected areas

- engage citizens in stewardship of marine and coastal protected areas, and
- increase the technical capacity of coastal managers to conserve, manage, and protect coastal and estuarine ecosystems.

The Secretary shall provide financial assistance for the Reserve System to contribute science, training and education capabilities to protected area networks, and to coordinate and convene regional-scale programs, activities and services of this section.

11. Financial Assistance

The Secretary shall make grants to a reserve for the following purposes:

- to operate and manage a reserve, and to support research and monitoring, education and training, and stewardship activities consistent with the guidelines stated in sections 4, 5, 6, and 7 above,
- to acquire and improve such lands and waters, and any property interests therein, as are necessary to ensure the appropriate long-term management of an area as a reserve, as stated in section 9,
- to construct and renovate appropriate reserve facilities as stated in section 9,
- to acquire, upgrade, replace, operate and maintain equipment or shared major equipment for research and monitoring, education and coastal training, and stewardship programs and activities as stated in section 9, and
- to contribute reserve science, training and education capabilities to protected area networks, and to coordinate and convene regional-scale programs, activities and services of section 10.

The amount of financial assistance to operate and manage a reserve may not exceed 70 percent of the costs incurred.

The amount of the financial assistance with respect to the acquisition and improvement of lands and waters, or interests therein, for any one reserve, may not exceed an amount equal to 50 percent of the costs of the lands, waters and interests therein.

The amount of financial assistance to construct and renovate reserve facilities may not exceed an amount equal to 70 percent of the costs of the construction.

The amount of financial assistance under this section provided from amounts recovered as a result of damage to natural resources located in the coastal zone may be used to pay 100 percent of the costs of activities carried out with such funding.

The Secretary may—

- enter into cooperative agreements or contracts with any nonprofit organization established to benefit a reserve or the reserve system, authorizing the organization to solicit donations to carry out projects, other than general administration of the reserve or the System, that are consistent with the purpose of the reserve and the System, and
- accept donations of funds and services for use in carrying out projects, other than general administration of a reserve or the System, that are consistent with the purpose of the reserve and the System.

Donations accepted under this paragraph shall be considered as a gift or bequest to or for the use of the United States for carrying out this section.

12. Evaluation

A periodic review of system-wide programs shall be conducted by NOAA to evaluate performance and responsiveness to program priorities of the Reserve System. Performance metrics shall be established for all system-wide programs. The Secretary shall periodically review and evaluate the operation and management of each reserve including the research and monitoring, education and training, and stewardship activities conducted with the reserve.

13. Authorization of Appropriations

For fiscal year 2009

\$ 40 million for section 2.
\$ 15 million for section 9.
\$ 10 million for section 10.

For fiscal year 2010

\$ 45 million for section 2.
\$ 18 million for section 9.
\$ 15 million for section 10.

For fiscal year 2011

\$ 50 million for section 2.
\$ 20 million for section 9.
\$ 20 million for section 10.

For fiscal year 2012

\$ 55 million for section 2.
\$ 25 million for section 9.
\$ 20 million for section 10.

For fiscal year 2013

\$ 60 million for section 2.
\$ 30 million for section 9.
\$ 20 million for section 10.