

Annual Report 2013

The vision of NJSGC is a sustainable future for New Jersey's coastal environment.

Our mission is to promote responsible use of New Jersey's coastal and marine environment.

> 22 Magruder Road Fort Hancock, NJ 07732 732-872-1300 njseagrant.org

and the second



Chairman's Message

Our challenges are as relentless as the surf. Since Superstorm Sandy's late-season strike in October 2012, all New Jersey eyes have been on the sea. Our state derives billions of dollars in revenue from our ocean economy, and countless hours of pleasure. Now, none of us take our ocean heritage for granted. At the New Jersey Sea Grant Consortium (NJSGC), we have never diverted our attention.

I am in awe of the talent present in our Consortium, populated by maritime scientists from our 24 member institutions. When these special people gather, there is no ego; rather, everyone is driven by the same concern for the welfare of the Garden State. Our people have been ahead of the curve on the sustainability of fish, rising ocean temperatures and dune-building. Indeed, every issue thrown into the news as a consequence of Sandy has been on our agenda for years.

This leads to the obvious question: how is New Jersey using the talent that is but a phone call away? Sadly, the answer is: not enough. Part of the story lies in the lack of coordination at the State level. Another element is that since 2010, the State has been unable to provide the level of funding to the NJSGC that they were able to contribute in the past. And then some of the blame lies with us. We need to do a better job of branding ourselves and touting our talents and successes. We have a remarkable story to tell.

Together with the member trustees, the Board is embarking on an ambitious effort to promote the New Jersey Sea Grant Consortium. You may already know us by the New Jersey Top Ten Beaches contest that we sponsor. You may know us by our rain barrel projects that diverted 800,000 gallons of water that would otherwise have run off. Your children may have come out with their class for our Sandy Hook field trips or marine science camp. That is terrific but we also want you to know us as the go-to organization for all maritime issues. When New Jersey identifies an issue, we have the New Jersey talent to respond. Recently, I asked one of our top scientists this question: "What is the most pressing maritime issue that is not being addressed?" His answer: "We do not have a good handle on what rising sea temperatures are doing to the fish population. Fish that used to be there, seem to be gone. New ones are moving in. What is changing out there?"



DENNIS KEARNEY Chairman Board of Trustees

Anyone who has dropped a hook in the water, had a fish dinner, or dipped a toe into the surf, is entitled to the answer to my

question. We have the scientists and staff to be guardians of all that is good about our ocean heritage. If you like what you see here (and you will!), send it to your friends. Talk us up on the beach, at your barbecue. Send us an email. Let us know what's on your mind. If you are really ambitious, write to your representative or senator and ask: "What is the State doing to support the Consortium?"

Yes, our challenges may be as relentless as the surf, but the surf is why we are drawn to the water.

We thank you for taking the time to stop here and read about us. Because of you, we will remain your guardian and protector. On behalf of our entire team, I am proud to present this Annual Report.

Executive Director's Message



CLAIRE ANTONUCCI Executive Director generations to come. An As happens each year, at least for me, this report puts into perspective the many things NJSGC's staff and partners do over the course of just a year to advance greater understanding and appreciation of New Jersey's marine and coastal environment. The Consortium has a 40-year plus history of mission-driven accomplishments from large to small, wide reaching to targeted, and timely to timeless. Most occur without much fanfare except for the knowledge that, very possibly, a few more steps have been made towards sustaining New Jersey's marine and coastal resources for that, NISGC's dedicated staff will tell vou.

generations to come. And that, NJSGC's dedicated staff will tell you, is reward enough.

As you reflect on 2013, you most likely will remember it as the first full year after Superstorm Sandy. A colleague from Louisiana called right after the storm to tell us to have patience, take small steps and to think broadly and long-term. He was so right. As New Jerseyans, I think we are all still in awe of the power of the environment and its ability to take back those things we took for granted from the permanence of the built environment to our ability to prevail over nature. Recovery in New Jersey has had its share of frustrations, but even before they were able to return to our Sandy Hook offices in early 2013, NJSGC's staff was already taking steps towards Sandy recovery. Over time, as counseled, their thinking did broaden in terms of their efforts. As it turned out, first response or rebuilding was not the best use of NJSGC's abilities and resources but making a positive contribution towards the long haul certainly was. NJSGC's Sandy-related efforts, now part of the groundwork for a different, more resilient and sustainable future for New Jersey and the Sandyaffected region, are described throughout this Annual Report and rest assured, this work will continue.

As always, it is an honor to be part of the NJSGC and its Sea Grant Program, especially now during this exciting time when the ways in which we have lived with the marine and coastal environment have been challenged and a course has been set on the road to change. Speaking for all of us at the NJSGC, I thank you for your interest in our organization and look forward to working with you and to serving our state in the months and years ahead.

Please enjoy this Annual Report with my best.

NJ Sea Grant Consortium Overview

The mission of the New Jersey Sea Grant Consortium (NJSGC) is to promote better understanding and sustainable use of New Jersey's coastal resources through its research, education, and outreach programs. In doing so, the NJSGC works closely with coastal communities, marine researchers, water dependent industries, government agencies, citizen groups, students, teachers, schools and individuals to foster environmental stewardship, long-term economic development, and responsible use of New Jersey's coastal and ocean resources. NJSGC is part of a nationwide network of 34 state programs supported by the National Sea Grant College Program within the National Oceanic and Atmospheric Administration (NOAA). Most of the 34 Sea Grant state programs are hosted by a single academic institution however, as a consortium, the NJSGC and its Sea Grant program benefit from the intellectual power and knowledge of its entire membership of 24 institutions to achieve its mission, including the goals and outcomes of its strategic and implementation plans.



The NJSGC strategic and implementation plans are developed with New Jersey's coastal stakeholders who provide input regarding needs within the state. The current plan aligns with National Sea Grant strategic and implementation plans in order to increase the impact of NJSGC activities across state, regional and national levels.

NJSGC invests in high-priority, stakeholder-driven research through competitive grants to scientists and educators throughout New Jersey. It maintains a standing, stakeholderdriven Sea Grant Advisory Board that advises on research priorities and also on extension, education and communications activities. Similarly, the Sea Grant Advisory Committee, a standing committee of the NJSGC Board of Trustees, offers advice and guidance and strengthens the link between NJSGC staff and the Board of Trustees.

NJSGC awards approximately one third of its federal dollars annually to research that addresses coastal and marine issues including coastal community resiliency, coastal processes, coastal ecosystems, water quality and fisheries. Researchers examine both the natural and human impacts on these systems. Through the



expertise and interaction of NJSGC extension agents, educators and communications specialists with Sea Grant-funded investigators, the remaining two thirds of federal dollars provide the foundation for the timely, relevant and meaningful dissemination of research results that can be applied by our coastal stakeholders. In 2013, NJSGC maintained its regional and national presence in Sea Grant through participation in the Mid-Atlantic Sea Grant Extension Program, Assembly of Sea Grant Extension Program Leaders and the Sea Grant Association. As a result, recent national reviews of the program have resulted in increased funding to the program for fiscal year 2014.

During 2013, NJSGC continued to work on long standing, ongoing outreach and education programs and projects, but also began to realize a lasting response to Superstorm Sandy. Not only did the outreach and education staff incorporate coastal storm and climate change awareness and understanding into their projects, they also obtained grants and developed new partnerships to address the needs of New Jersey's coastal stakeholders. Additionally, current research and future research priorities continued to be relevant to coastal storms, climate change, and coastal resiliency. NJSGC received Sandy related funding from the National Sea Grant College Program as part of

a rapid response initiative and from NOAA Sandy Supplemental Funds. The rapid response funds are being used to develop awareness, understanding and implementation of natural dunes to reduce the impacts of coastal storms. The NOAA Sandy Supplemental Funds are being used in a joint effort with New York and Connecticut Sea Grant to support ten social science research projects that address stakeholder response to storm warnings.



Extension

The Extension Program at the NJSGC had a productive and successful 2013. Extension staff served coastal communities across the state, region and the nation by delivering new, continuing and expanded projects. Agents and specialists met and provided technical assistance to coastal stakeholders both individually and in groups via educational activities and tours, invited presentations at conferences, workshops, symposia, seminars and outreach events, and through memberships on boards, advisory councils, committees and associations. Extension staff also enthusiastically received thousands of visitors at NJSGC's annual two-day public outreach event, Ocean Fun Days.

2013 was the first full year after Superstorm Sandy. The Extension team extended their reach by incorporating coastal storm and climate change into their ongoing activities and conducted Sandy specific activities on top of their normal routines. The goal of these activities was not to be a first responder, but to offer a lasting response that will make New Jersey's coastal stakeholders and communities more resilient to future storm events. Extension staff, and all NJSGC staff, were hard at work on this goal even before NJSGC's home on Sandy Hook was reopened in late March.

In 2013, Extension staff became involved in two Sandy related projects as a result of funding from the National Sea Grant Program and NOAA Sandy Supplemental Funds. National Sea Grant funds will be used to produce a manual to assist communities with building better dunes which will also be used for dune-related curriculum development within NJSGC's Education Program. New Jersey, New York and Connecticut Sea Grant also received Sandy Supplemental Funds to support research on understanding the response of individuals to storm warning messaging. The extension and communication programs for each state will be involved in the technology transfer of the ten funded projects.

In addition to Director Dr. Peter Rowe, full-time staff at Sandy Hook are Michael Danko, Assistant Extension Director and Marine Recreation Agent and Diana Burich, Sea Grant Associate. The Extension Program maintained its successful Memoranda of Agreement (MOA) with Stevens Institute of Technology to retain the services of Dr. Jon Miller as NJSGC's Coastal Processes Specialist. An MOA with Rutgers University Cooperative Extension supported Water Resources Agent, Ms. Jessica Brown. She replaced Water Resources Agent, Amy Boyajian, who took a position with New York Sea Grant as the Long Island Sound Outreach Coordinator. Lisa Calvo, Shellfish Aquaculture Program Coordinator, entered her third year supported by a National Strategic Investment (NSI) Aquaculture Extension Grant through an MOA with Rutgers University.

Dr. Rowe continued his involvement in Sea Grant Extension at the regional and national level while Extension staff continued their success in obtaining grants and contracts. From the State of New Jersey, Michael Danko received funds to continue the Clean Vessel Act and Clean Marina Programs. He continues to work on a Coastal Communities Climate Adaptation Initiative award, surveying coastal businesses to increase their understanding and awareness of the impacts of climate change. Both Dr. Rowe and Mr. Danko continued outreach on a Mid-Atlantic Sea Grant award with the

other Mid-Atlantic Sea Grant programs on best practices for reducing the introduction of aquatic invasive species in the live bait trade. Dr. Rowe is also a principal investigator on a Coastal Communities Climate Adaptation Initiative award with Stevens Institute of Technology and Jersey City.

The following summaries highlight the projects and activities of the Extension Program's Agents and Specialists in 2013.

DR. PETER ROWE

Director of Research and Extension

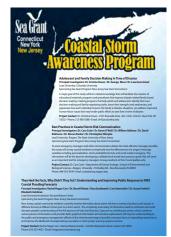
Gulf to Shore: Disaster, Recovery and Rebuilding Lessons Learned from the Gulf Coast

NJSGC teamed up with the Jacques Cousteau Research Reserve and the Barnegat Bay Partnership in May to host and sponsor a workshop at Ocean County College addressing lessons learned from the hurricanes along the Gulf Coast and relating them to recovery and rebuilding in New Jersey, post Superstorm Sandy. The Gulf Coast has been on the front lines for years in thinking about preparedness, rebuilding and recovery. Invited speakers from the Gulf Coast shared lessons learned that could prove invaluable to decision makers in New Jersey facing the same challenges. The workshops established a dialogue with people that have lived through these challenges and explored ways to work with communities to be resilient for the future. As a result of this event, the partners have begun work on a Coastal Homeowner's Hazard Manual modeled after the original manual from Hawaii Sea Grant. Working with Hawaii Sea Grant and FEMA, the partners supported four coastal community resiliency workshops presented by the National Disaster Preparedness Training Center at the University of Hawaii (FEMA). The workshops targeted a broad cross section of professionals involved in emergency management, fire services, coastal zone management, planning, development and municipal services.

Coastal Storm Awareness Program (CSAP)

NJSGC and its partners, New York and Connecticut Sea Grant, received a total of \$1.8 million in grants from NOAA as part of Sandy Supplemental Funding to enhance the Sandy affected region and nation's ability to respond to coastal disasters. Despite the early and substantial warnings about Sandy from state and federal

agencies, many people did not respond to them resulting in loss of life and property. Damages and economic losses from Superstorm Sandy were estimated to be nearly \$37 billion in New Jersey alone. The goal of this research and outreach grant is to determine and understand what influences the choices individuals make and how they can be reached more effectively in the future. NJSGC's Coastal Processes Specialist, Dr. Jon Miller, is involved in the outreach for this program. This effort will address this question



through an integrated research and outreach program entitled the Coastal Storms Awareness Program or CSAP. The tri-state Sea Grant programs selected 10 social science research projects at the end of 2013 for research to be conducted in 2014-15. The ultimate goal of this research will link cutting edge risk communication science with targeted outreach to those who convey critical hazard information and thus enhance the effectiveness of risk messaging to help people choose their actions with a clear knowledge of the risks and consequences of their choices.

Benthic Camera Workshop

NJSGC received funding from NOAA/NMFS to host a workshop on undersea benthic imaging systems. The workshop was held in Red Bank, New Jersey late in the year. Underwater imaging systems are making a transition from analog to digital systems, however this change will occur gradually and newly collected digital images must be aligned to older systems to allow reliable comparisons. Major themes of the workshop included cost effectiveness and comprehensive sampling imagining methodology for characterizing benthic communities, documenting the advantages and limits of



various systems currently being used, and consideration of the future needs regarding imaging systems. The workshop was designed as an informal gathering for

people who use benthic imaging systems to meet and discuss how to best use the equipment, improve imaging quality and discuss future of benthic camera systems. Over 20 participants from across the nation attended the workshop. A summary of presentations from the workshop is being coordinated by Dr. Richard Langton of NOAA/NMFS and will result in a web based document produced by NJSGC.

Legal & Policy Solutions for Mid-Atlantic Ocean Planning Symposium

Funded by the National Sea Grant Law Center, NJSGC and its partners, Monmouth University Urban Coast Institute, Seton Hall University School of Law and the Environmental Law Institute, organized and hosted the Legal & Policy Solutions for Mid-Atlantic Ocean Planning Symposium in April 2013. This regional ocean governance symposium was built on past and ongoing efforts to identify innovative and robust legal and policy approaches to support priorities and address timely and critical issues along the Mid-Atlantic coast and ocean. Invited speakers and panelists provided state and local decision-makers and other interested parties with legal and policy analysis to bolster the implementation of regional ocean planning in the Mid-Atlantic. Key issues of interest



included multi-use ocean management, offshore alternative energy, and habitats, fisheries, and living marine resources. Several invited papers based on the symposium speakers' presentations appeared in the Sea Grant Law and Policy Journal. http://nsglc.olemiss.edu/sglpj/archive/vol6.1/

DR. JON MILLER

Coastal Processes Specialist

Superstorm Sandy Response

In the aftermath of Superstorm Sandy, the NJSGC Coastal Processes Specialist (CPS) has been on the front lines assisting New Jersey's coastal communities to recover and rebuild with resilience in mind. The CPS continues to work with the state and its coastal communities through the New Jersey Coastal Protection Technical Assistance Service to identify appropriate measures to reduce exposure and enhance resiliency during the rebuilding phase. The CPS worked with communities throughout the state ranging from Greenwich in the rural southwest corner of the state, to Jersey City in densely populated Hudson County. In Greenwich, the CPS and NJSGC Extension Director met with concerned local residents about flooding issues that pre-dated Sandy. NJSGC was able to provide valuable information about post-Sandy recovery funds and several grant programs for which the community might be eligible.

In Jersey City, the CPS is working with oceanographers at Stevens Institute of Technology through a National Sea Grant Coastal Communities Climate Adaptation Initiative grant to help the community understand its present and future vulnerability, and learn measures to help reduce that vulnerability. Outside of working with these individual communities, the CPS was involved in several projects with potential statewide impacts during 2013. In collaboration with the USDA and several New Jersey Sea Grant funded researchers, the CPS is working on an update to the New Jersey dune manual. The dune manual will contain valuable information on the establishment, enhancement and effective management of coastal dunes.

Living Shorelines Projects

NJSGC's CPS continues to work with the State of New Jersey and its coastal communities to advance the understanding and implementation of living shorelines projects. Living shorelines projects typically attempt to mimic the natural protective features found within the coastal environment. By strategically combining structural and non-structural elements, living shorelines projects can reduce erosion and restore vital habitat. The CPS continues to work

closely with the state on the development of a set of engineering guidelines which will compliment a newly adopted general permit designed to streamline the permit process for these win-win



projects. In addition the CPS worked with many local groups such as the Barnegat Bay Partnership, the American Littoral Society, and the Partnership for the Delaware Estuary to identify potential sites where living shorelines projects could be of significant benefit. Based on his work within the State, Dr. Miller was recently invited to participate in a working group organized by the Army Corps of Engineers with the objective of increasing the role of natural and nature based solutions within the Army Corps of Engineers portfolio of coastal resilience projects.

MICHAEL DANKO

Assistant Extension Director, Marine Recreation Agent – Fisheries and Boating

New Jersey Clean Vessel Act Program

Superstorm Sandy severely impacted recreational boating facilities throughout the state, causing approximately \$100 million in uninsured losses. NJSGC's Marine Recreation Agent provided assistance to various state agencies to assess the damage caused by Superstorm Sandy and to help with prioritizing restoration efforts. Assistance was provided to New Jersey Department of Environmental Protection Division of Fish and Wildlife to

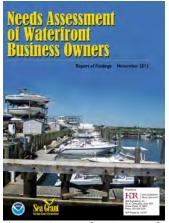


determine the number of pumpout facilities that were damaged. The information obtained was used to provide recreational boaters with a current list of operating pumpout facilities prior to the 2013 boating season. The Clean Vessel Act Program is

currently working to replace the 50% loss of pumpout stations. It is hoped that the New Jersey Clean Vessel Act Program will be able to rebuild approximately 30 of the pumpout facilities prior to the 2014 boating season. Additionally, information on waterways and recreational boating facilities was provided to the New Jersey Department of Transportation Office of Maritime Resources to help them prioritize efforts to remove sediment from channels that were impacted by the storm.

Coastal Communities Climate Adaptation Initiative - Needs Assessment of Waterfront Owners

The Marine Recreation Agent conducted a needs assessment of waterfront business owners in early fall of 2013 as part of his education and outreach campaign related to climate change impacts. The first phase of this needs assessment targeted marina owners and



operators along the entire New Jersey coast. The first phase targeted marina owners and operators from 460 marinas in New Jersey. Results provided a thorough assessment of marina owners' and operators' awareness and attitudes regarding potential effects of climate change. These results will be invaluable as an education and outreach tool and as associated products and programs evolve to help business owners in the coastal zone prepare for the effects of climate

change. Seventy-five percent of respondents expressed some degree of concern about climate change, but there is an unmet demand for easily accessible information about potential impacts from climate change among this audience. It is anticipated that a final report providing details on all the findings will be released in 2014.

JESSICA BROWN

Water Resources Agent

The Water Resources Agent dedicated her time and energy to promoting best practices in stormwater management that resulted in improved water quality in New Jersey's watersheds and to making known the connection between healthy watersheds and coastal waters. Her extension activities target communities, municipal officials, schools, watershed groups and individuals that are interested in promoting improved water quality of watersheds, including our coastal waters.

Stormwater Reduction Projects

The NJSCG Water Resources Agent managed and implemented numerous stormwater reduction projects and programs. These included rain barrel workshops, green infrastructure and stormwater control measure implementation, Stormwater Management in Your Backyard/Schoolyard programming and projects to reduce nitrogen from entering the Barnegat Bay. In 2013 the rain barrel program distributed 600 barrels conserving over 840,000 gallons of water. Ten rain gardens, pervious pavement sidewalks, or other stormwater control measures were also installed. The Water Resources Agent, along with Delaware and Maryland Sea Grant Agents, partnered with the UCONN Center for Land Use Education and Research to create a smart phone rain garden application for the design of rain gardens. Over 1,500 children and adults learned more about stormwater, its impacts, and the actions they can take at home or at school to reduce stormwater impacts. Several projects involving modified stormwater control measures for the reduction of nitrogen are underway in watersheds that drain to the Barnegat Bay.

Green Infrastructure Projects

The Water Resources Agent, along with interns from the Rutgers

Cooperative Extension Water Resources Program, offered rain barrel workshops in Camden for Spanish speakers and installed over 20 green infrastructure practices in addition to maintenance of over 30 rain gardens. In 2013, the Agent gained partnerships with the Passaic Valley Sewerage Commission and continued her work in Hamilton Township. The Agent continued to promote programs that started late in 2012 and focused her efforts on the targeted



audiences of civic volunteers and municipal officials. The "Paraprofessionals for Watershed Restoration" workshop trained over 60 volunteers to collect data for watershed restoration plans and assess sites for the disconnection of impervious cover and stormwater management. The Water Resources Agent was actively involved in securing grant funding to support an educational training for municipal officials on stormwater management compliance ("Asking the Right Questions in Stormwater Plan Review"). She began a workshop series in the fall of 2013 with the hope of training over 300 municipal officials in the upcoming year. The green infrastructure programs offered thus far have reached over 3,000 people and have resulted in over 35 green infrastructure installations across New Jersey.

LISA CALVO

Shellfish Aquaculture Program Coordinator

Project PORTS: Promoting Oyster Restoration Through Schools Builds Reefs and Stewardship

Project PORTS is a unique environmental stewardship program that engages underserved K-12 students in southern New Jersey in the restoration of critical oyster habitat in the Delaware Estuary. Through its real world and locally relevant connections, Project PORTS presents a transformational experiential learning opportunity for students and supports the sustainability of the Delaware Estuary's oyster resource and ecosystem health. In the classroom, the oyster is used as a vehicle to teach scientific and environmental concepts and create an awareness of Delaware Bay and its rich resources and maritime history. During the 2013 program year, Project PORTS engaged 1,000 students from eight schools. The students constructed 2,400 shell bags, which were used to enhance oyster reef habitat. The program also engaged more than 100 adult and youth volunteers.

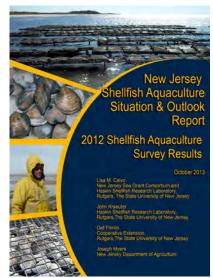
Forum Provides Platform for Educating Industry and Sharing Ideas

NJSGC's Shellfish Aquaculture Program Coordinator, in collaboration with the Haskin Shellfish Research Laboratory, continued to support industry education through their successful Shellfish Growers Forum. As part of the series, the Harold Haskin Fisherman's Forum Series was reinstated to support guest speakers from around the nation. The Forum was created in honor of former Laboratory Director, Dr. Hal Haskin, through a gift from his classmates, Rutgers Class of 1936, with the intent of serving local fishery and aquaculture communities. Invited guest speaker, Dr. William Walton, Assistant Professor at Auburn University's Department of Fisheries and Allied Aquacultures and Extension Agent at Alabama Cooperative Extension System, visited New Jersey oyster farms and offered seminars to industry and scientists on the topic of improving the quality of farmed shellfish. The Forum spawned new ideas and collaborations that will benefit both New Jersey and Alabama shellfish farmers.

Cooperative Research in Oyster Aquaculture

The Shellfish Aquaculture Program Coordinator continued her cooperative research on aquacultured oysters on two projects with local oyster farms. One research project targeted the mudworm. Biofouling caused by marine polychaetes (*Polydora spp*) is an important challenge for New Jersey oyster farmers in the lower Delaware Bay. These ubiquitous mudworms can kill oysters, reduce oyster growth and decrease product appeal and marketability. In collaboration with industry partner, Betsy Haskin, owner of Betsy's Cape Shore Salts, Ms. Calvo conducted field experiments to develop efficient and effective methods for control of *Polydora* infestation. Methods include immersion of infested oysters in hypersaline water,

freshwater, and lime dips. Experiments started in 2013 are ongoing, but results to date demonstrate that worm settlement occurs during late spring and summer and that control measures had limited success in eliminating the fouling problem. This pilot project presents a starting point for a more focused multi-step control process, including early spring treatment of overwintering infestations.







The Communications Program at the NJSGC functions as an in-house publishing, advertising and marketing agency for the organization and its Sea Grant program. Program staff is responsible for conveying information to the media, individuals, and targeted user groups in an effective and creative manner. Much of the information is reflective of NISGC's research, education and extension activities, however projects may also include preparing and conveying

information from other agencies, organizations and stakeholders who are also working to bring about a better understanding of New Jersey's coastal ocean environment.

In 2013, NJSGC's Communications team consisted of Director Kim Kosko, Communications Specialist Marsha Samuel, and Graphic Designer Rory Joyce. Shortly after



NJSGC returned to its Sandy Hook Headquarters following the Superstorm Sandy closure, Communication Specialist Marsha Samuel departed for a new home and position on the West Coast. She was replaced by Lianna Bass.

While the Communications team played an integral role in many NJSGC projects, including those of its partner organizations, the team also conducted a number of special projects in 2013 including:

The State of the Shore Media Event

In 2013, the Communications Program hosted its annual State of the Shore Media Event on May 23 at D'jais Bar and Grill in Belmar. New Jersey Department of Environmental Protection Commissioner Bob Martin and Division of Travel and Tourism Executive Director



Grace Hanlon provided remarks and insight on the condition of the state's beaches and the outlook for tourism the first summer after Sandy to dozens of reporters from New Jersey's media outlets. The mainstay of the event, the *State of the Shore Report*, was delivered by its author and primary researcher, Dr. Jon Miller, NJSGC's Coastal Processes Specialist, also of Stevens Institute of Technology. Dr. Stewart Farrell, Director of the Richard Stockton College Center for Coastal Resources, also contributed to the 2013 report and was a featured speaker at the conference. The event concluded with the announcement of the winners of the New Jersey's Top Ten Beaches poll. This annual on-line survey was started in 2008 by the NJSGC and the Richard Stockton College Coastal Research Center to encourage stewardship and pride in the state's beaches.

"Heart to Heart" Conversation Press Conference

In February, NJSGC's Communications staff brought together Jersey Shore destination marketing organizations and county

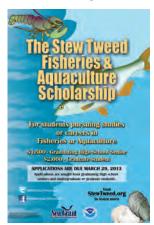


tourism representatives to speak to the media in a unified voice to let them know that despite Superstorm Sandy, the Jersey Shore would be ready for the summer of 2013. Speakers include Grace Hanlon, Executive Director of the New Jersey Division of Travel & Tourism; Diane Wieland, Director of Cape May County Department of Tourism; Larry Sieg, Vice President of Marketing, Atlantic City Convention & Visitors' Authority; Lori Pepenella, Destination Marketing Director of the Long Beach Island Region Southern Ocean County Chamber of Commerce and Bob Hilton, Executive Director of the Jersey Shore Convention and Visitors' Bureau. Ron Jaworski, NFL great, ESPN analyst and New Jersey's Golf Ambassador also provided remarks.

The Stew Tweed Fisheries and Aquaculture Scholarship

To honor the memory of Marine Extension Agent Stewart Tweed, the NJSGC coordinates the Stew Tweed Fisheries and Aquaculture

Scholarship for high school and college students pursuing studies in fisheries and marine-related technology. A group of industry leaders and individual benefactors provided funding to start and sustain the scholarship and each year since 2008, scholarships have been awarded to support one graduating high-school senior and one undergraduate/graduate student.



In 2013, Congressman Frank Pallone (NJ-6th District) who once worked for the New Jersey Sea Grant

Extension program and was a colleague of Mr. Tweed, presented the scholarships during NJSGC's annual open house, Ocean Fun Days. The scholarship for a graduating high school senior went to Emily Casper, a resident of Red Bank and graduate of The Marine Academy of Science and Technology at Sandy Hook who would



continue her marine studies in the fall at Fordham University. Jessica Valenti, a rising senior majoring in marine science at the Richard Stockton College of New Jersey, was awarded the Undergraduate/Graduate scholarship. A resident of Toms River, Ms. Valenti plans to attend graduate school and focus on fisheries science following completion of her program at Richard Stockton College.

Education

Each year, the staff of the Education Program at the NJSGC offers a diverse array of education programs and contributes to numerous partnership efforts that foster marine, coastal and ocean literacy and environmental stewardship. All activities contribute towards the realization of two long-standing departmental goals, recently institutionalized in the NJSGC's strategic plan. These goals are:

- A marine literate, environmentally aware public that appreciates New Jersey's marine and coastal environment and can make sound, science-based decisions regarding its use and care, and;
- A diverse, knowledgeable, and well-prepared workforce that can advance understanding and informed management of New Jersey's marine and coastal environment.

Highlights of activities that contributed toward the realization of these goals in 2013 are:

Field Trips for School Groups

Despite lingering effects of Superstorm Sandy which prevented access to many of the outdoor areas routinely used by NJSGC's educators for instructional purposes, education staff provided instruction to over 18,000 New Jersey schoolchildren and their teachers who looked towards the NJSGC to help them understand the science of the beaches, bays, estuaries and maritime forest habitats of Sandy Hook and coastal New Jersey. These programs were coordinated by Diana Burich and Cindi Valkos who worked with a team of nearly forty marine science educators. This dedicated and hardy team conducted outdoor programs "rain or shine" seven days a week throughout 2013. The group is a truly remarkable one, coming to the NJSGC from all walks of life from college students to retired professionals. With backgrounds including in-service and prospective formal education, law, accounting, corporate training and more, they are united by one passion-to share their knowledge and appreciation of New Jersey's coastal environment with others.



During 2013, the first year following Superstorm Sandy, it was only natural that students coming to Sandy Hook would be curious about the storm. To help students make sense of how Superstorm Sandy

affected New Jersey's coast and to get them thinking about ways to make our coast and themselves more prepared and resilient to future events like Sandy, NJSGC's educators took on new topics related to storm and climate issues including storm surge, coastal flooding and sea level rise and incorporated them into new and existing programs. Led by



Mindy Voss, NJSGC's Education Specialist, lesson plans and other educational materials for teachers on storm and coastal resilience began to be developed and disseminated. Teacher workshops on the new storm-related materials were conducted by NJSGC staff at the April 2013 Ocean County Environmental Educator's Roundtable and the October 2013 New Jersey Marine Educator's Conference.

Marine and coastal technology continued to be an important theme for NJSGC's K-12 offerings. Coastal engineering concepts from beach nourishment, dune management and "living shorelines" techniques were infused into NJSGC's K-12 programs. In addition,



a relatively new program during which teams of students get to design, build, and test a remotely operated underwater vehicles (ROV's) of their own design began to be offered to school and summer camp groups. The ROV program was introduced and led by NJSGC's K-12 Program Coordinator, Diana Burich. In addition, Ms. Burich applied for and received funding from the PSEG Foundation that will permit NJSGC to develop and implement an ROV program for the Jersey City School District to enhance their existing STEM (Science, Technology, Engineering, and Mathematics) educational opportunities for students enrolled in their summer and after-school programs.

Scout Programs

Despite cancellations caused by Superstorm Sandy, 120 Boy and Girl Scouts participated in NJSGC's scout programs during 2013. Under the direction of Jody Sackett, who joined the NJSGC in the fall of 2013 as Scout Program Coordinator, NJSGC's scout programs underwent significant revisions and updates. Fourteen new Girl Scout programs and five new Cub and Boy Scout programs were added to the NJSGC's existing roster of Scout programs. New programs range from traditional seine net fishing or Native American studies to high-tech Geocaching using GPS devices. Each new program utilizes the maritime environment at Sandy Hook, will be primarily outdoor-based, highly interactive and will support current scout badge requirements. While NJSGC continued to offer the Boy Scout Oceanography merit badge in 2013 (several staff members are certified Oceanography merit badge counselors), staff also became authorized to offer the Environmental Science merit badge as well. This new badge program includes having Scouts simulate thermal and oil pollution to evaluate



effective mitigation and cleanup ideas; seine fish in the bay to discover marine creatures living there; hike through the salt marsh to identify birds and survey native vegetation; and conduct water chemistry experiments on the beach and in the NJSGC laboratory. NJSGC also developed a partnership with Girl Scouts of the Jersey Shore, enabling teaching of various badge programs at Sandy Hook. Monmouth Boy Scout Council became another new partner, assisting the NJSGC to promote marine and environmental related Boy and Cub Scout programs.



Summer College Program

In cooperation with Brookdale Community College, this program served nearly forty undergraduate students from the Consortium's member institutions. Courses ranged from introductory courses in oceanography and marine biology to SCUBA. NJSGC's Summer College Program is coordinated by Rosemary Higgins.

Off-site Presentations - Oceans-To-Go!

In addition to on-site programs, off-site presentations continued to grow in popularity with programs provided in Linden, Asbury Park, Rumson, Fair Haven, Keansburg, South Amboy and Fairview among other New Jersey locations. One after-school partner, Our Lady of Mount Carmel 21st Century Learning Center in Asbury Park, brought the NJSGC to their center for a second year for eleven different after-school presentations. NJSGC's off-site education



programs, known collectively as "Oceans-To-Go," were led by the NJSGC's College and Special Programs Coordinator, Rosemary Higgins. In 2013, nearly 3000 students participated in the "Oceans-To-Go" program.

Marine Science Summer Camp

During the summer of 2013, 97 children from grades 3 through 8 spent a week or two of their summer vacation with NJSGC's educators. Led by Brittany Dusko, a former NJSGC educator and current Sayreville secondary school teacher, the camp ran for five consecutive weeks and consisted of extensive outdoor explorations followed by challenging laboratory investigations including squid





and shark dissections. Patricia Briner, a National Oceanic and Atmospheric Administration (NOAA) Hollings Scholar, was a frequent contributor to the camp and throughout the summer made special interactive presentations to NJSGC's campers on ocean acidification and other climate science topics.

Project PATH (Parents, Administrators, Teachers and Higher Education Faculty Helping Rural Disadvantaged Students Stay on a Pathway to a Geoscience Career)

The premise of Project PATH is that by exposing students while they are still young to geoscience careers, a future workforce will result that will be equipped to deal with local, state and national environmental and technical needs. Funded by the National Science Foundation, this multi-year project allows NJSGC's educators to



work with the project's principal investigator, Dr. William Slattery of Wright State University (Dayton Ohio) and under-resourced middle school students from rural Ohio. During the summer of 2013, NJSGC educators provided a week-long summer institute in geoscience education focused on marine science and marine science careers to the students and teachers, administrators and parents from Ripley, Ohio who worked alongside NJSGC staff and Wright State University faculty to become acquainted with the science of the ocean and the research being conducted to increase understanding of its critical habitats. Highlights of the week included a fossil hunt at Poricy Park, a marine sampling cruise aboard the Captain John out of Keyport, and a survey of Sandy damage along the Jersey Shore.



Public Outreach/Ocean Fun Days

Each year, NJSGC's educators reach out to the public at a number of public events that focus on increasing ocean literacy or advancing environmental science education. In 2013, these events included the Barnegat Bay Festival, the New Jersey Science Teachers Convention, the New Jersey School-aged Child Care Providers Conference, the Ocean County Environmental Educator's Roundtable, the Association of New Jersey's Environmental Educators Conference and Cape May's HarborFest. In addition, the Consortium's own large-scale public outreach event, Ocean Fun Days, sponsored by founding partner New Jersey Natural Gas was held on June 8 and 9. The event was coordinated, as it has been since it began in 2003, by NJSGC's College and Special Programs Coordinator Rosemary Higgins.

Over 11,000 visitors turned out in 2013 to participate in classes in energy conservation, rip current safety, dune building and marine plant and animal identification. At Sandy Hook, the James J. Howard/NOAA Marine Fisheries Laboratory opened its doors to the public with NOAA researchers and scientists on hand to speak with all visitors. Additional 2013 Ocean Fun Days partners were the Asbury Park Press, NJDEP, New Jersey Division of Parks and Forestry and Gateway National Recreation Area, Sandy Hook Unit.

Each year, Ocean Fun Days includes a student science fair competition for students in grades 3-6. In 2013, teams of students from Monmouth and Ocean Counties were challenged to create projects related to the science behind Superstorm Sandy. Projects ranged from investigations of the storm itself to research on the factors that may have influenced Sandy's intensity such as warmer ocean temperatures and rising sea-levels. Students also created and presented ideas and models on effective ways to protect beaches, homes and businesses. Winning teams in 2013 came from the Lanoka Harbor, Berkeley Township and Clara B. Worth Elementary Schools and the Cedar Drive Middle School in Colts Neck. Each team received guided field trips of Sandy Hook for their entire class, trophies and a special Ocean Fun Days Science Fair t-shirt.



Omnibus Research Awards

Dr. Kenneth W. Able, Dr. Thomas M. Grothues

Rutgers, The State University of New Jersey

The Decline of Winter Flounder: Influences of Changes in Connectivity Between Estuaries and the Inner Continental Shelf R/6210-0014

Dr. Michael J. Kennish, Dr. Benjamin Fertig

Rutgers, The State University of New Jersey

Evaluating Ecological and Social Impacts of New Jersey Legislation Regulating Fertilizer Nitrogen Loads to Barnegat Bay – Little Egg Harbor Estuary by Using Isotopic Signatures, Seagrass Demographics, Social Response and Communications R/6210-0013

Dr. Robin Leichenko, Dr. Richard G. Lathrop Jr.

Rutgers, The State University of New Jersey

Economic Vulnerability to Climate Change on the Jersey Shore: Promoting Adaptation, Resilience and Sustainability in Coastal New Jersey R/6210-0012

Dr. David Velinsky, Dr. Tracy Quirk

The Academy of Natural Sciences of Drexel University

The Influence of Estuary Geomorphology on Accretion of Coastal Wetlands: A Potential for Priority Planning for New Jersey Coastal Areas Vulnerable to Sea Level Rise R/6210-0011

Development Research

Dr. David Bushek

Rutgers University – Haskin Shellfish Research Laboratory

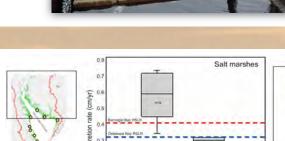
Comparative Analysis of Bivalve Clearance Rates for Restoration Management

12

Dr. Louise Wootton

Georgian Court University

Developing the Sampling Protocols and Competencies Needed to Monitor Effectiveness of a Rain Garden Designed for Nitrogen Removal



0.6110.05

Delaware Bay E Estuary

Barnegat Bay







Board of Trustees

Chairman **Mr. Dennis Kearney** Day Pitney LLP

Vice-Chairman Dr. Howard I. Parish

Treasurer **Mr. Thomas Siegert, CPA** Institute of Electrical and Electronics Engineers

Executive Director/Director of Education Claire Antonucci New Jersey Sea Grant Consortium

Corporate Secretary **Deborah A. Meehan** New Jersey Sea Grant Consortium

Fiscal Officer **Augustine Anfuso** New Jersey Sea Grant Consortium

<u>Trustees</u>

Mr. Gregory T. Aikins Medical Management Techniques, Inc.

Dr. Keith R. Cooper Rutgers University

Mr. Lindsay Fuller South Jersey Advisors, LLC

Dr. Richard Lutz Rutgers, The State University

Mr. Tony MacDonald Monmouth University

Dr. Robert Prezant Montclair State University

Dr. Michel Boufadel New Jersey Institute of Technology

Mr. Thomas Siegert, CPA Institute of Electrical and Electronics Engineers

Dr. David Spang Burlington County College **Dr. Peter Straub** Richard Stockton College of New Jersey

Dr. Brian Teasdale Kean University

Mr. Christopher Zeppie Port Authority of New York & New Jersey

GOVERNMENT AGENCIES

Mr. Christopher Cerf New Jersey Department of Education

Ms. Genevieve Boehm-Clifton New Jersey Department of Transportation, Office of Maritime Resources

Honorable Bob Martin New Jersey Department of Environmental Protection

Dr. Thomas Noji NOAA/National Marine Fisheries Service

Honorable Andrew P. Sidamon-Eristoff State of New Jersey

Member Institutions & Representatives

Academy of Natural Sciences of Drexel University Dr. Richard Horwitz

Brookdale Community College Dr. Catherine Folio

Burlington County College Mr. David C. Hespe

The College of New Jersey Dr. Dennis Shevlin

County College of Morris Professor Samantha Fuentes

Fairleigh Dickinson University Dr. Marion McClary, Jr.

Georgian Court University Dr. Louise S. Wootton

Kean University Dr. Brian Teasdale Marine Academy of Science and Technology Mr. Earl Moore

Monmouth University Tony MacDonald, Esq.

Montclair State University Dr. Robert Prezant

New Jersey City University Dr. William W. Montgomery

New Jersey Institute of Technology Dr. Nancy L. Jackson

Ocean County College Dr. Stanton Hales

Princeton University Dr. Peter Jaffe

Ramapo College of New Jersey Dr. Angela Cristini **The Richard Stockton College of New Jersey** Dr. Peter F. Straub

Rider University Dr. Gabriela Smalley

Rowan University Dr. Courtney Richmond

Rutgers, The State University Ms. Diane Carlino

Seton Hall University Dr. Carolyn S. Bentivegna

Stevens Institute of Technology Dr. Alan Blumberg

Union County College Dr. Igor Oksov

William Patterson University Dr. Michael Peek

Stakeholder Advisory Board

Chairman **Mr. Steve Carnahan** Seaboard Fisheries Institute

Ms. Genevieve Boehm–Clifton NJDOT Office of Maritime Resources

Dr. Gary A. Buchanan New Jersey Department of Environmental Protection Mr. Jim Hutchinson Recreational Fishing Alliance

Mr. Daniel Nee Brick Patch

Dr. Vincent Guida NOAA/National Marine Fisheries Service Mr. Rich Ritota Food Safety Systems

Mr. Jorge Reyes New Jersey Department of Environmental Protection

Ms. Margot Walsh The Jersey Shore Partnership

Staff

Administration

Claire Antonucci Executive Director

Lisa Aromando Administrative Assistant

Deborah Meehan Corporate Secretary and Office Manager

Peter Rowe Associate Director for Sea Grant Administration

Communications

Kim Kosko Director of Communications

Lianna Bass Communications Associate **Rory Joyce** *Communications Associate*

Marsha Samuel Communications Specialist

Education

Claire Antonucci *Director of Education*

Diana Burich *K-12 Program Coordinator/Sea Grant Associate*

Brittany Dusko Marine Science Summer Camp Coordinator

Rosemary A. Higgins College & Special Programs Coordinator

Jody Sackett Scout Program Coordinator

Field Guides

Tracey Algayer Al Avizius Ron Blandon Sara Breslow Brett Buzzanga Emily Casper Kristen Cline John Collins Laura Degnan Francis Degnan Nicole Delmonaco Robert Eckstein Beth Estelle Patrick French Kathleen Gasienica Jen Gibbons Cassandra Hunt Leslie Johnson Emma Katz Stephanie Kealy Kaitlin Lamb Eileen MacHaffie Theresa Marotta Stephanie McAlary Mary Ann McCormick Jessica Mejia Bridgett Neary Karen Nickels Chuck Parker Lee Rossbach Jody Sackett Gerard Smith Alyssa Sokol Sarah Stewart Gary Tallard Courtney Taylor Joshua Tennant Patricia Valerio William Van Deventer Sandra Varone Jade Yelk **Jessica Staats** Education and Outreach Coordinator

Cynthia Valkos Administrative Assistant

Mindy Voss Education Specialist

Extension

Peter Rowe Director of Research and Extension

Jessica Brown Water Resources Agent

Lisa Calvo Aquaculture Extension Program Coordinator

Michael Danko Assistant Director of Extension Marine Recreation Agent – Fisheries & Boating

Jon Miller *Coastal Processes Specialist*

Finance

Augustine Anfuso *Fiscal Officer*

Carolyn A. Cornely Accounting Assistant

Maintenance

Al Avizius *Technician*

Donald Humphrey *Technician*

Donors & Supporters

Small Businesses

Green Cove Marina Charles Hembling & Son Spark Market Solutions, LLC

Corporations

New Jersey Natural Gas

NJSGC Vendors

Boynton & Boynton Insurance Boynton Benefits Corporation Sun Bank WithumSmith+Brown

Stew Tweed Scholarship Fund

Alan Balkin Kim Kosko National Aquaculture Association Peter Rowe Gail Tweed Priscilla Tweed

Other Donors

Claire Antonucci Atlantic City Convention and Visitors Authority Barnegat Bay Decoy and Baymen's Museum, Inc. Borough of Belmar Borough of Bradley Beach County of Cape May J. Stephen Carnahan John and Joyce Collins Gail and Robert Eckstein Dennis Huyler Kristine Jones Melissa Kelly Little Falls Township Public Schools Victor Maisano County of Monmouth Dr. Howard Parish Mrs. Fran and Dr. Robert Prezant Elaine Randolph

Red Bank Rotary Foundation Lee and Nancy Rossbach Peter Rowe Jody and Raymond Sackett Seaside Heights Business Improvement District Inc. Shore Region Tourism Council Tom Siegert Southern Ocean County Chamber of Commerce DMO Jeffrey and Jody Steinman Dr. Peter Straub William VanDeventer Frances Voss Jeffery Warshauer Greater Wildwoods Tourism Janice Zimmerman



Kathy Abatemarco Claire Antonucci Al Avizius Jerome Beckworth Allison Benson Samantha Benson Tom Benson Dominic Biancamano Lynn Lemire Bryan Rav Bukowski Diana Burich Janet Caruso Ryan Chafe David Corbin Pat Corbin Nicole Davis Nina Davis Shari Davis Judy DeSalvatore Tim Doerrier Robert Eckstein Susan Ellman

Scarlet Encaracion Karen Escobedo Ryan Fitzpatrick Maureen Flumerfelt James Hargrove Fray Maggai Fray Paulette Frav Shayla Fray Bob Gallo Regina Golub Frank Graf Lily Graf Gary Guarriello Terri Guarriello Ed Hale Tom Hayes Rosemary Higgins Jill Hoernig Alyssa Houlis Anna Houlis Dyan Chafe Jacobs

Fran Jacobs Shawn Kann Denise Kann Kathy Kerr Bob Kudrick Gina Longo Lisa Maglione James McCarthy Joanne McCracken Bob McGowan Maureen McGowan Tom Merenda Nicole Missenou Craig Normandin Kathy O'Connell Quetzy Ortiz Cynthia Cruz Ortiz Evyan Sudol Ortiz Jahrid Overby Annemarie Peracchio Tom Perri

Frank Peters **Raquel Phillips** Gary Pivarnick Amanda Plantamura Judy Rector Moe Roselli Lee Rossbach Friend Ryan Jerry Ryan Roxie Ryan Elizabeth Scarano Briana Scarano Greg Seitz Chris Smith Alexis Smith Kayla Troy Nyelle Troy Renee Troy Cody Valkos John Wnek Staci Winder

This publication is the result of work sponsored by New Jersey Sea Grant with funds from the National Oceanic and Atmospheric Administration (NOAA) Office of Sea Grant, U.S. Department of Commerce, under NOAA grant #NA10OAR4170075 and the New Jersey Sea Grant Consortium. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the views of New Jersey Sea Grant or the U. S. Department of Commerce. NJSG-14-870

NEW JERSEY SEA GRANT CONSORTIUM. INC.

FINANCIAL STATEMENTS AND INDEPENDENT AUDITOR'S REPORTS

September 2013 and 2012

TABLE OF CONTENTS

<u>P.</u>	AGE
INDEPENDENT AUDITOR'S REPORT	1-2
FINANCIAL STATEMENTS	
STATEMENTS OF FINANCIAL POSITION	3
STATEMENTS OF ACTIVITIES	4
STATEMENTS OF FUNCTIONAL EXPENSES	.5-6
STATEMENTS OF CASH FLOWS	7
NOTES TO FINANCIAL STATEMENTS	3-12

GERMAN, VREELAND & ASSOCIATES, LLP

CERTIFIED PUBLIC ACCOUNTANTS

ROBERT W. DODDS, CPA* JEFFREY M. GERMAN, MBA, CPA DAVID A. HULSIZER, CPA VICTOR MAISANO, CPA KEVIN O'CONNOR, MBA, CPA CURT L. PALATSKY, MBA, CPA*, CVA 2 RIDGEDALE AVENUE - SUITE 300 CEDAR KNOLLS, NJ 07927-1119 (973) 605-2777 FAX (973) 605-8064

ROBERT ALPER, CPA*, CITP MARIA BATTERSHALL, CPA RAJESH K. SETHI, CPA, MST

www.gvacpa.com mail@gvacpa.com

RETIRED

LOUIS T. GERMAN, CPA GORDON A. VREELAND, CPA

INDEPENDENT AUDITOR'S REPORT

To the Board of Trustees of New Jersey Sea Grant Consortium, Inc.

Report on the Financial Statements

We have audited the accompanying financial statements of New Jersey Sea Grant Consortium, Inc. (a nonprofit organization), which comprise the statement of financial position as of September 30, 2013, and the related statements of activities, functional expenses, and cash flows for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of New Jersey Sea Grant Consortium, Inc. as of September 30, 2013, and the changes in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

MEMBER OF THE AMERICAN INSTITUTE OF CPAS MEMBER OF THE NEW JERSEY SOCIETY OF CPAS *LICENSED IN NEW YORK AND NEW JERSEY

Prior Period Financial Statements

The financial statements of New Jersey Sea Grant Consortium, Inc. as of September 30, 2012, were audited by other auditors whose report dated April 15, 2013, expressed an unmodified opinion on those statements.

Other Matters

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The accompanying schedules of expenditures of federal awards and state financial assistance, as required by Office of Management and Budget Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated, in all material respects, in relation to the financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated February 28, 2014, on our consideration of New Jersey Sea Grant Consortium Inc.'s internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering New Jersey Sea Grant Consortium, Inc's internal control over financial reporting and compliance.

Gener, Uncelored - lissountes, 12P

German, Vreeland & Associates, LLP Cedar Knolls, New Jersey February 28, 2014

NEW JERSEY SEA GRANT CONSORTIUM, INC. STATEMENTS OF FINANCIAL POSITION September 30, 2013 and 2012

ASSETS	2013	2012
Current assets		
Cash and cash equivalents	\$ 1,013,845	\$ 436,014
Investments	-	519,159
Accounts receivable	175,794	16,251
Grants and contracts receivable	260,945	381,992
Prepaid expenses and other current assets	48,046	51,203
Total current assets	 1,498,630	 1,404,619
Property and equipment, net	 831,202	 903,471
TOTAL ASSETS	\$ 2,329,832	\$ 2,308,090
LIABILITIES AND NET ASSETS Current liabilities Accounts payable and accrued expenses Accrued rent Due to subrecipients Deferred revenue	\$ 100,282 3,899 187,476 256,552	\$ 95,881 4,463 248,759 54,131
Total current liabilities	 548,209	 403,234
Long-term liabilities Accrued rent, net of current portion	42,886	46,785
Total liabilities	591,095	 450,019
	 	 100,017
Net assets		
Unrestricted	1,731,000	1,850,334
Temporarily restricted	 7,737	 7,737
Total net assets	 1,738,737	 1,858,071
TOTAL LIABILITIES AND NET ASSETS	\$ 2,329,832	\$ 2,308,090

See accompanying notes.

NEW JERSEY SEA GRANT CONSORTIUM, INC. STATEMENTS OF ACTIVITIES Years Ended September 30, 2013 and 2012

.

2012

2013

										1	
		TEMPORARILY	RARILY					TEMPC	TEMPORARILY		
	UNRESTRICTED	D RESTRICTED	ICTED		TOTAL	UNRE	UNRESTRICTED	RESTF	RESTRICTED		TOTAL
SUPPORT AND REVENUE											
Grants and contract revenue	\$ 1,589,173	\$	Ŀ	69	1,589,173	\$	1,569,199	69	9	69	1,569,199
Contributions	36,734		,		36,734		23,041		7,737		30,778
Educational and service program revenue	157,360		,		157,360		184,395		ŝ		184,395
Membership dues	37,445		£		37,445		40,110				40,110
Interest income	2,995		ĩ		2,995		3,667		,		3,667
Other income	176,755		,		176,755		35,978			3	35,978
Total support and revenue	2,000,462		1		2,000,462		1,856,390		7,737		1,864,127
EXPENSES Program services Educational activities	192.185		,		192.185		299.421				299.421
Rescarch activities	1,612,905		7		1,612,905		1,551,502		e		1,551,502
	1,805,090				1,805,090		1,850,923				1,850,923
General and administrative	314,706				314,706		362,993		5		362,993
Total expenses	2,119,796				2,119,796		2,213,916		t		2,213,916
CHANGE IN NET ASSETS	(119,334)	~	5		(119,334)		(357,526)		7,737		(349,789)
NET ASSETS, Beginning of year	1,850,334		7,737		1,858,071		2,207,860		'		2,207,860
NET ASSETS, End of year	\$ 1,731,000	~	7,737	\$	1,738,737	\$	1,850,334	\$	7,737	↔	1,858,071

See accompanying notes.

.

			Progr	Program Services						
	Edu	Educational	R	Research	Total	Total Program	Gene	General and	Ĩ	Total
	Ac	Activities	V	Activities	Se	Services	Admir	Administrative	E	Expenses
Salaries	49	88,530	\$	489,754	\$	578,284	69	136,767	₩	715,051
Payroll taxes and benefits		19,980		156,240		176,220		47,737		223,957
Payments to subrecipients		a.		834,053		834,053		ī		834,053
Professional fees		7,860		48,585		56,445		27,578		84,023
Supplies		4,520		18,282		22,802		11,331		34,133
Advertising		1,953		1,400		3,353		Ē.		3,353
Telephone		13		9,293		9,306		4,313		13,619
Postage		649		6,146		6,795		853		7,648
Occupancy						ï		49,642		49,642
Repairs and maintenance		613		100		713		23,451		24,164
Printing		649		11,383		12,032		143		12,175
Conferences and training		6,856		17,545		24,401		3,570		27,971
Dues and subscriptions		39		1,573		1,612		5,000		6,612
Awards		,		6,150		6,150		č		6,150
Miscellaneous		4,976		•		4,976		•		4,976
Total expenses before depreciation		136,638		1,600,504		1,737,142		310,385		2,047,527
Depreciation		55,547		12,401		67,948		4,321		72,269
Total expenses		192,185	\$	1,612,905	63	1,805,090	69	314,706	69	2,119,796

See accompanying notes.

S

NEW JERSEY SEA GRANT CONSORTIUM, INC.	STATEMENT OF FUNCTIONAL EXPENSES	Year Ended September 30, 2012
---------------------------------------	----------------------------------	-------------------------------

			Progra	Program Services						
	Edu	Educational	R	Research	Total	Total Program	Gene	General and		Total
	A	Activities	Y	Activities	Se	Services	Admir	Administrative	H	Expenses
Salaries	\$	143,272	\$	505,311	69	648,583	€)	131,462	\$	780,045
Payroll taxes and benefits		33,865		167,201		201,066		37,990		239,056
Payments to subrecipients		ŝ		765,822		765,822		·		765,822
Professional fees		26,739		28,331		55,070		96,986		152,056
Supplies		17,714		18,851		36,565		11,564		48,129
Advertising		1,343		2,533		3,876				3,876
Telephone		666		8,548		9,214		4,849		14,063
Postage		1,475		6,692		8,167		1,179		9,346
Occupancy		,		•		ï		54,845		54,845
Repairs and maintenance		519		304		823		5,337		6,160
Printing		1,918		6,898		8,816		161		8,977
Fleet costs		,		7,500		7,500		'n		7,500
Conferences and training		10,332		13,887		24,219		2,649		26,868
Dues and subscriptions		97		573		670		5,526		6,196
Awards		х		6,650		6,650		,		6,650
Loss on disposal of assets		0		'		ī		5,709		5,709
Miscellaneous		5,934				5,934		415		6,349
Total expenses before depreciation		243,874		1,539,101		1,782,975		358,672		2,141,647
'Depreciation		55,547		12,401		67,948		4,321		72,269
Total expenses	**	299,421	\$	1,551,502	\$	1,850,923	\$	362,993	\$	2,213,916

See accompanying notes.

9

NEW JERSEY SEA GRANT CONSORTIUM, INC. STATEMENTS OF CASH FLOWS Years Ended September 30, 2013 and 2012

	 2013	 2012
CASH FLOWS FROM OPERATING ACTIVITIES		
Change in net assets	\$ (119,334)	\$ (349,789)
Adjustments to reconcile change in net assets		
to net cash provided by operating activities		
Depreciation	72,269	72,269
Loss on disposal of asset	-	5,709
Change in net assets and liabilities		
Accounts receivable	(159,543)	(7,666)
Grants and contracts receivable	121,047	(149,490)
Prepaid expenses and other assets	3,157	(9,108)
Accounts payable and accrued expenses	4,401	(26,155)
Due to subrecipients	(61,283)	248,759
Accrued rent	(4,463)	12,177
Deferred revenue	202,421	(25,102)
Net cash provided (used) by operating activities	 58,672	 (228,396)
CASH FLOWS FROM INVESTING ACTIVITIES		
Sale of investments	520,938	-
Interest earned on investments	(1,779)	(2,869)
Net cash provided (used) in investing activities	519,159	(2,869)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	577,831	(231,265)
CASH AND CASH EQUIVALENTS, Beginning of year	 436,014	 667,279
CASH AND CASH EQUIVALENTS, End of year	\$ 1,013,845	\$ 436,014

SUPPLEMENTAL CASH FLOW INFORMATION:

No amounts were paid for interest or income taxes for the years ended September 30, 2013 and 2012.

See accompanying notes.

.

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the New Jersey Sea Grant Consortium, Inc. ("NJSGC") have been prepared on the accrual basis of accounting. The significant accounting policies followed are described below to enhance the usefulness of the financial statements to the reader.

<u>Organization</u> – NJSGC is a 501(c)(3) institution dedicated to the care, conservation and sustainable-utilization of New Jersey's marine and coastal resources. The Sandy Hook-based Consortium currently consists of twenty-two colleges, universities and other organizations dedicated to advancing knowledge and stewardship of New Jersey's marine and coastal environment, and meets its mission through innovative research, education and extension programs.

New Jersey's coastline is a natural treasure and NJSGC is dedicated to understanding and caring for this resource. NJSGC programs range from sponsored research and marine science education for school-children to extension services for coastal municipalities, maritime businesses and the public.

Since NJSGC was founded in 1969, it has contributed leading research in the field of marine and environmental science. Since 1976, it has managed the New Jersey Sea Grant Program ("NJSGP"), part of a national network administered by the National Oceanic and Atmospheric Administration ("NOAA") that funds competitive research focusing on specific priority areas as well as education and outreach activities.

The Extension Program at NJSGC provides useful information to people employed or interested in fields related to marine resources-fishermen, coastal engineers, maritime industry personnel, resource managers, decision makers, and the general public. Extension Program personnel expertise includes biology, sociology, economics, public policy, and engineering. Each Extension Program professional works directly with coastal communities and business professionals to transfer information and effect change by applying science-based information to daily decision-making.

The Education Program at NJSGC is committed to assuring that New Jerseyans understand, value, and appreciate their marine and coastal environment and are able to apply sound evidence and science-based information to make well-informed decisions regarding its use, management, and care. This is accomplished through the wide range of educational services and products that the Education Program provides. The Program's teaching and learning activities range from direct instruction such as field trips, camps, scout programs, in-school presentations, college coursework, public outreach events to information preparation and dissemination including fact sheets, posters, lesson plans, activity guides, video conferences, web-based publications and other teaching materials.

Learn more about the NJSGC by visiting www.njseagrant.org.

<u>Basis of Presentation</u> – External financial reporting by not-for-profit organizations requires that resources be classified for accounting and reporting purposes into net asset categories according to externally (donor) imposed restrictions. The unrestricted net asset category represents net assets that are not subject to donor imposed restrictions, the temporarily restricted net asset category represents net assets that are subject to time or purpose donor imposed restrictions and the permanently restricted net asset category represents net assets that are subject to donor imposed restrictions that cannot be satisfied by either the passage of time or by actions of NJSGC.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont'd)

<u>Revenue and Support Recognition</u> – NJSGC recognizes contributions as revenue when they are received or unconditionally pledged and records these revenues as unrestricted or restricted support according to donor stipulations that limit the use of these assets due to time or purpose restrictions. When a donor restriction expires, temporarily restricted net assets are reclassified and reported in the statements of activities as net assets released from restrictions. However, the receipt of restricted contributions whose restrictions expire or are otherwise satisfied within the period of receipt are reported as unrestricted revenues in the statements of activities.

NJSGC accounts for those contract revenues which have been determined to be exchange transactions in the statements of activities to the extent that expenses have been incurred for the purpose specified by the grantor during the period. Program revenues received in advance of their usage are classified as deferred revenue in the statements of financial position. In applying this concept, the legal and contractual requirements of each individual contract are used as guidance.

Additional unrestricted revenues are obtained from educational and service program revenue, membership dues, and investment income. These revenues are used to offset program expenses as well as the cost of property and equipment acquisitions and general and administrative expenses.

<u>Tax Status and Incorporation</u> – NJSGC is exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code. Accordingly, the financial statements do not reflect a provision for Federal income taxes. NJSGC has no uncertain tax positions at September 30, 2013 and 2012. There are no open tax years prior to 2010. In addition, there was no interest or penalties related to income taxes included in the financial statements.

<u>Valuation of Long-Lived Assets</u> – In accordance with the accounting pronouncements related to accounting for the impairment or disposal of long-lived assets, NJSGC reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Management has determined that no assessment was required for the periods presented in these financial statements.

<u>Estimates</u> – The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures included in the financial statements. Accordingly, actual results could differ from those estimates.

Advertising – Advertising is expensed in the period incurred. Advertising expense was \$3,353 and \$3,876 for the years ended September 30, 2013 and 2012, respectively.

<u>Property, Equipment and Depreciation</u> – Property and equipment of \$5,000 or greater is recorded at cost when purchased, or at fair value at date of gift. Depreciation is provided for by the straight-line method over the estimated useful lives of the assets. Major renewals and betterments are charged to fixed assets; maintenance, minor repairs and replacements which do not improve or extend the life of the respective assets are expensed currently.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont'd)

<u>Expense Classification</u> – The expenses of NJSGC are presented in the statements of activities under the following classifications which describe NJSGC program activities:

Educational activities – supports the educational goals of NJSGC by planning and conducting a wider range of K-12, college, teacher, and public education programs.

Research activities - aids and encourages scholarly activities in marine related subjects through cost reimbursement contracts.

All expenses which were not directly associated with the above service categories are categorized as general and administrative expenses. Additionally, there is a de minimis amount of fundraising expense that has been included in general and administrative expenses.

NOTE 2 - GRANTS AND CONTRACTS RECEIVABLE AND DEFERRED REVENUE

NJSGC operates under various grants and contracts. At September 30, 2013 and 2012, NJSGC was due certain amounts from funding sources which resulted from expenditures incurred in excess of payments received. In addition, NJSGC received advances from certain funding sources which represent payments in excess of expenditures incurred which has been recorded as deferred revenue. The following details grants and contracts receivable and deferred revenue at September 30, 2013 and 2012:

Grants and Contracts Receivable	2013	<u>2012</u>
Funding Agency		
U.S. Department of Commerce		
National Oceanic and Atmospheric Administration		
Sea Grant Programs	\$ 135,504	\$ 248,841
U.S. Department of Fish and Wildlife Service	7,974	21,282
National Science Foundation		7,257
State of New Jersey – Department of Environmental Protection	116,239	88,984
Other	1,228	15,628
	\$ 260,945	\$ 381,992
Deferred Revenue		
Funding Agency		
U.S. Department of Commerce		
The second		
National Oceanic and Atmospheric Administration	* 205 125	A 26214
Sea Grant Programs	\$ 206,425	\$ 26,314
State of New Jersey – Department of Agriculture	18,328	20,447
Other	31,799	7,370
	\$_256,552	\$_54,131

NOTE 3 – FAIR VALUE MEASUREMENTS

NJSGC has provided fair value disclosure information for relevant assets and liabilities in these financial statements. The following table summarizes assets (liabilities) which have been accounted for at fair value on a recurring basis as of September 30, 2012, along with the basis for the determination of fair value:

		Quoted Prices	Observable	Unobservable
		In Active	Measurement	Measurement
		Markets	Criteria	Criteria
	Total	(Level 1)	(Level 2)	(Level 3)
Certificates of deposit	<u>\$_516,159</u>	<u>\$</u>	\$ 516,159	<u>\$</u>

NJSGC values such assets using quoted market prices in active markets (Level 1) for identical assets to the extent possible. To the extent possible that such markets are not available, NJSGC values such assets using observable measurement criteria, including quoted market prices of similar assets in active and inactive markets and other corroborated factors (Level 2). In the event that quoted market prices in active markets and other observable measurement criteria are not available, NJSGC develops measurement criteria based on the best information available (Level 3).

NOTE 4 – PROPERTY AND EQUIPMENT

Property and equipment, net of accumulated depreciation, at September 30, 2013 and 2012 consisted of the following:

	Estimated Li	e	
	(Years)	2013	2012
Building improvements	5-20	\$ 1,157,887	\$ 1,157,887
Marine equipment	3-12	21,870	21,870
Machinery and equipment	5-12	136,100	136,100
		1,315,857	1,315,857
Less: Accumulated depreciation		(484,655)	(412,386)
		\$ 831,202	<u>\$ 903,471</u>

Depreciation expense totaled \$72,269 and \$72,269 for the years ended September 30, 2013 and 2012, respectively.

NOTE 5 - RETIREMENT PLAN

NJSGC has a 403(b) contributory defined contribution retirement plan (the"Plan") for those employees who meet eligibility requirements. Employees must have one year of service and 1,000 hours to be eligible to participate in the Plan. Participants must contribute a minimum of 2 percent of eligible salaries in order to receive a 6 percent contribution from NJSGC to the Plan. Pension expense was \$34,783 and \$36,667 for the years ended September 30, 2013 and 2012, respectively.

NOTE 6 - LEASED FACILTIES

NJSGC occupies facilities owned by the National Park Service at Fort Hancock, New Jersey. NJSGC pays for all operating costs including, but not limited to, utilities, repairs and maintenance. NJSGC entered into a twenty-year lease agreement expiring June 30, 2025, which was amended in 2012 and calls for minimum lease payments of \$3,383 annually. Rental expense for these facilities for the years ended September 30, 2013 and 2012 was \$7,050 and \$18,177, respectively.

NOTE 7 - CONCENTRATIONS OF CREDIT RISK

Financial investments which potentially subject NJSGC to concentrations of credit risk consist of cash and receivables. In an attempt to limit credit risk, NJSGC places all funds with high quality financial institutions. Management has not experienced any losses. Receivables are due from various governmental agencies with which NJSGC has a long history of collecting payments, which reduces credit risk.

NOTE 8 - SUBSEQUENT EVENTS

Management has evaluated subsequent events through February 28, 2014, the date on which the financial statements were available to be issued. During the year ended September 30, 2013 NJSGC submitted an insurance claim relating to hurricane Sandy. The insurance claim was paid to NJSGC during October 2013 in the amount of \$157,945 and is included in accounts receivable in the statement of financial position and included as other income in the statement of activities for the year ended September 30, 2013.