

Appendix A

Proposal for the Hurricane Sandy Coastal Resiliency Competitive Grants: Marsh Restoration and Replenishment, Little Egg Harbor, New Jersey, Submitted to the National Fish and Wildlife Foundation, Federal Financial Assistance Grant Number: 44109



EasyGrantsID: 44109

National Fish and Wildlife Foundation – Hurricane Sandy Coastal Resiliency Competitive Grants

Program 2013, Full Proposal

Title: Marsh Restoration and Replenishment, Little Egg Harbor NJ

Organization: Little Egg Harbor Township

Grant Information

Title of Project

Marsh Restoration and Replenishment, Little Egg Harbor NJ

Total Amount Requested	\$ 2,137,041.20
Matching Contributions Proposed	\$ 91,500.00
Proposed Grant Period	05/05/ 2014 - 05/04/ 2016

Project Description

This project will protect two towns by restoring several acres of marsh, preventing further erosion, opening clogged waterways, and replenishing a beach through the beneficial reuse of dredge spoils.

Project Abstract

The Marsh Restoration and Replenishment project at Little Egg Harbor and Tuckerton will consist of the dredging of three lagoon communities to remove silt build up that is blocking stormwater outfalls and impeding the passage of wildlife and boats, resulting in approximately 7 miles of stream area restored and opened. The dredged materials will be put to use to restore and replenish approximately 6 acres of marsh and wetlands, about .7 acres of beach, and to place erosion controls at three locations. The dredging and habitat restoration will directly benefit 1,038 homes and numerous fish, reptile, amphibian, mammal and bird populations, to include the Red Knot and the American Oystercatcher. It will indirectly benefit the entire two towns, (total population 23,412 US Census 2010), by strengthening the natural buffer from storm surges, protecting critical infrastructure, and preserving the tax base. The project will directly create an estimated 40 temporary jobs, and indirectly preserve the bayshore economic activities of fishing, crabbing, and oyster farming.

Organization and Primary Contact Information

Organization	Little Egg Harbor Township
Organization Type	State or Local Government
Organization Web Address	www.leht.com
Organization Phone	
Street Line 1	
Street Line 2	

City, State, Country, Postal Code	Little Egg Harbor Township, New Jersey, North America - United States
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Region (if international)

Organization Congressional District	District 2 (NJ)
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Primary Contact

Position/Title	Leah Yasenchak Local Recovery Manager
Street Line 1	Administrative Justice Complex
Street Line 2	665 Radio Road
City, State, Country, Postal Code	Little Egg Harbor, New Jersey, North America - United States, 08087



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Organization: Little Egg Harbor Township

Region (if international)
Phone and E-mail

732-859-0831 x ; lyasenchak@njfuture.org

Keywords

Conservation Action; Major Habitat Type; Species

Sub-keywords

Action - Land/Water Protection; Action - Livelihood, Economic & Other Incentives; Bird - Shorebird - *Calidris canutus* (Red Knot); Bird - Shorebird - *Haematopus palliatus* (American Oystercatcher); Coastal - Coastal beaches, dunes and shoreline; Coastal - Estuaries and Bays; Freshwater - Rivers, lakes and streams and riparian zone; Invertebrate - *Crassostrea virginica* (Eastern Oyster); Species - Amphibian; Species - Bird; Species - Fish; Species - Mammal; Species - Plant

Other Keyword(s)



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Organization: Little Egg Harbor Township

Project Location Information

Project Location Description	The towns of Little Egg Harbor and Tuckerton, on the Barnegat and Great Bays; specifically the marsh and beach, and the lagoon communities of Osborne Island, Tuckerton Beach, and Paradise Cove.
Project Country(ies)	North America - United States
Project State(s)	New Jersey
Project Congressional District(s)	District 2 (NJ)

Permits and Approvals

Permits/Approvals Description:	Waterfront Development Permit was applied for and approved on June 29, 2012, prior to Hurricane Sandy, for dredging at Osborne Island (1516-11-0012.1 (WFD110001)). However, a revised application is required to allow for the additional materials deposited during Sandy, the additional areas to be dredged, and the beneficial reuse of the dredge spoils.
Permits/Approvals Status:	Intend to Apply
Permits/Approvals Agency-Contact Person:	NJDEP Office of Dredging and Sediment Technology, Ms. Suzanne U. Dietrick
Permits/Approvals Submittal-Approval Date:	8/4/2014 12:00:00 AM

Permits/Approvals Description:	ACOE Dredging Permit was applied for and approved on February 9, 2012, prior to Hurricane Sandy, for dredging at Osborne Island. However, a revised application is required to allow for the additional materials deposited during Sandy, the additional areas to be dredged, and the beneficial reuse of the dredge spoils.
Permits/Approvals Status:	Intend to Apply
Permits/Approvals Agency-Contact Person:	ACOE Regulatory Branch, Mr. Michael H. Hayduk
Permits/Approvals Submittal-Approval Date:	9/1/2014 12:00:00 AM



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Salaries and Benefits

	Units	Cost Per Unit	Total
N/A	0	\$0.00	\$0.00

Total Salaries and Benefits			\$0.00
No salary funds are requested.			

Equipment

	Units	Cost Per Unit	Total

Total Equipment			\$0.00

Contractual Services

	Units	Cost Per Unit	Total
Design, Engineering, and Oversight	1	\$80,000.00	\$80,000.00
Dredging	150000	\$9.00	\$1,350,000.00
Beach restoration	16000	\$4.00	\$64,000.00
Permitting	1	\$50,000.00	\$50,000.00
Geotube erosion control	4050	\$7.00	\$28,350.00
Thin layer deposition	5000	\$8.00	\$40,000.00
Marsh restoration material placement	125000	\$3.00	\$375,000.00
restoration and planting labor costs	6080	\$23.14	\$140,691.20



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Program 2013, Full Proposal

Title: Marsh Restoration and Replenishment, Little Egg Harbor NJ

Organization: Little Egg Harbor Township

Total Contractual Services			\$2,128,041.20
Permitting and Design Engineering and Oversight are lump sum values. Restoration and Planting Labor costs units are hours, based on 2 crews of 8 people each, working for ten weeks. The remaining units are in cubic yards.			

Supplies and Materials

	Units	Cost Per Unit	Total
Plant material	1	\$9,000.00	\$9,000.00

Total Supplies and Materials			\$9,000.00
Planting material for restoration of marshes and shoreline is estimated at 1,500 per acre, over 6 acres.			

Printing

	Units	Cost Per Unit	Total
N/A	0	\$0.00	\$0.00

Total Printing			\$0.00
No printing funds are requested.			

Travel

	Units	Cost Per Unit	Total
N/A	0	\$0.00	\$0.00

Total Travel			\$0.00
No travel funds are requested.			

Other

	Units	Cost Per Unit	Total

Total Other			\$0.00
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Title: Marsh Restoration and Replenishment, Little Egg Harbor NJ

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Budget Grand Total			\$2,137,041.20
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Program 2013, Full Proposal

Title: Marsh Restoration and Replenishment, Little Egg Harbor NJ

Organization: Little Egg Harbor Township

Matching Contributions

Matching Contribution Amount:

\$30,000.00

Type:

In-kind

Status:

Pledged

Source:

NJ Future

Source Type:

Non-Federal

Description:

NJ Future has placed a Local Recovery Manager in Little Egg Harbor and Tuckerton, who will serve as overall project manager. The dollar value estimate of this time is \$30,000 over the course of the project.

Matching Contribution Amount:

\$61,500.00

Type:

Cash

Status:

Received

Source:

Osborne Island Residents Association

Source Type:

Non-Federal

Description:

The Osborne Island Residents Association has expended over \$61,500 to develop a dredging plan, obtain permits, and test the sediment for the Osborne Island dredging portion of the project. This project will be able to build upon that completed work.

Total Amount of Matching Contributions \$91,500.00



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Organization: Little Egg Harbor Township

Activities and Outcomes

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Beach habitat quality improvements - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 0.00

Acres restored - Grant Completion: 0.70

Notes: This estimates the acres of restored beach at Tuckerton Beach upon completion of this project.

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Beach habitat quality improvements - Miles restored

Description: Enter the number of miles restored

Required: Recommended

Miles restored - Current: 0

Miles restored - Grant Completion: 0.10

Notes: This is an estimate of the linear miles of beach restored at Tuckerton Beach.

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Erosion control - # structures installed

Description: Enter the number of structures installed, replaced, upgraded or repaired to reduce erosion or wetland/marsh lost.

Required: Recommended

structures installed - Current: 0

structures installed - Grant Completion: 3

Notes: This is based on an anticipated three areas of geotube installation at the Mystic Island Natural Lands Trust near Iowa Court on Osborne Island.

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Fish passage improvements - Miles of stream opened

Description: Enter the number of miles of stream opened

Required: Recommended

Miles of stream opened - Current: 0

Miles of stream opened - Grant Completion: 7

Notes: This is an estimate of the miles of impacted streams and lagoons at Osborne Island, Tuckerton Beach, and Paradise Cove that would be open and accessible as a result of dredging activities.



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Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Land, wetland restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 0.00

Acres restored - Grant Completion: 6.00

Notes: This is an estimate of the acres of wetlands that would be created by the placement and planting of dredge materials.

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Wetland restoration - Acres restored

Description: Enter the number of acres restored

Required: Recommended

Acres restored - Current: 0.00

Acres restored - Grant Completion: 6.00

Notes: This is an estimate of the acres of wetlands that would be created in the existing marsh system through the placement and planting of dredge materials, replacing wetlands lost due to erosion.

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Sandy - Economic benefits - # jobs created

Description: Enter the number of jobs created

Required: Recommended

jobs created - Current: 0.00

jobs created - Grant Completion: 40.00

Notes: This is an estimate of the temporary jobs created directly as a result of this project. It does not take into account the preservation of the ability of the bayshore residents to continue with their fishing, oyster farming, and clamming activities; nor does it take into account the preservation of the quality of life that provides the basis for the economy in these towns. The actual economic impact is much greater than the jobs that are directly created.

Funding Strategy: Capacity, Outreach, Incentives

Activity / Outcome: Sandy - Outreach/ Education/ Technical Assistance - # people reached

Description: Enter the number of people reached by outreach, training, or technical assistance activities

Required: Recommended

people reached - Current: 0.00

people reached - Grant Completion: 1038.00



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Notes: This number is the number of households directly impacted by this project. The actual number of people impacted in terms of increased buffering from storms is likely much greater.

Funding Strategy: Planning, Research, Monitoring

Activity / Outcome: Sandy - Research - # research studies completed

Description: Enter the number of research studies completed

Required: Recommended

research studies completed - Current: 0

research studies completed - Grant Completion: 1

Notes: This project will support research being conducted by several groups, but most directly that being conducted by the E.B. Forsythe National Wildlife Preserve, to examine the feasibility of marsh strengthening using thin layer deposition.

Funding Strategy: Habitat Restoration

Activity / Outcome: Sandy - Instream restoration - Miles restored

Description: Enter the number of miles restored

Required: Recommended

Miles restored - Current: 0

Miles restored - Grant Completion: 7

Notes:



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Organization: Little Egg Harbor Township

The following pages contain the uploaded documents, in the order shown below, as provided by the applicant:

Spatial Data
GAAP audited financial statements
A-133 Audit
Statement of Litigation
Letters of Support
Board of Trustees, Directors, or equivalent
IRS Form 990
Hurricane Sandy Proposal Narrative
Project Map

The following uploads do not have the same headers and footers as the previous sections of this document in order to preserve the integrity of the actual files uploaded.



Marsh Restoration and Replenishment, Little Egg Harbor NJ

Hurricane Sandy Coastal Resiliency Competitive Grants Program

Full-proposal Project Narrative

A. Geographic Context:

This project is located in the towns of Little Egg Harbor and Tuckerton, in Southern Ocean County, NJ. These are bayfront communities whose economies depend on the Barnegat Bay and Great Bay. The project would target the following lagoon communities: Osborne Island in Little Egg Harbor Township; and Tuckerton Beach and Paradise Cove in Tuckerton Borough. It would address marsh erosion and removal in locations along the shoreline, as well as silt and sediment buildup in the waterways. This would directly benefit these communities, as well as the several surrounding public trust lands: the Mystic Island NJ Natural Lands Trust, the E.B. Forsythe Wildlife Refuge, and the Jacques Cousteau National Estuarine Research Reserve Wildlife Management Area.

B. Project Narrative:

a. Project Goals:

Little Egg Harbor Township and Tuckerton Borough are located on Little Egg Harbor on Barnegat Bay, a rich marine ecosystem that provides the economic basis for the two communities. Recreational boating, oyster and clam beds, commercial crabbing, and birding are some of the activities that support the area. The land sits just above sea level and is susceptible to flooding from lunar tides, heavy rain, nor-easter's and hurricanes. It is protected primarily by the marshland that also provides the basis for a portion of the economy as well as makes the area appealing to residents. The devastation caused by Superstorm Sandy included flood damage to buildings, severe erosion, and damage to basic infrastructure. Areas of both communities have been significantly impacted by ongoing erosion of the shorelines. This in turn threatens the viability of roadways and eliminates protective barriers to homes. Neighborhoods at particular risk are: Osborne Island, Paradise Cove, and Tuckerton Beach.

The salt marsh along the Barnegat Bay is suited more for wildlife than people. The fiddler crabs, killifish and mummichong that use the small tidal streams and ditches and tidal pools on the marsh provide a substantial food base for snowy egret, black crowned night heron, great blue heron as well as gulls and terns. Salt marsh brackish habitat, the ecotone between salt water of the ocean and fresh water from the mainland, supports one of the most productive ecosystems in terms of numbers of organisms it can support and the functions it serves to both the ocean and the land. Intense coastal development of manmade lagoons and associated homes has impinged on the salt marsh environment, reducing the natural storm buffer. Fortunately, the salt marsh that remains continues to buffer the mainland from harsh coastal storms.

Because of the diverse ecosystem of the area, several restoration projects are recommended. The economy of the area is threatened by the silting up of navigable waterways with sand that has eroded from the nearby barrier islands. This material can be used to cost effectively undertake

multiple restoration projects, while maintaining the economy, quality of life, and tax base of the community, and providing increased protection from future storms. Such restoration projects consist of:

- Erosion controls in the form of geotubes to halt the erosion of the Mystic Island Natural Land Trust, the loss of which is threatening Iowa Court in the residential neighborhood of Osborne Island.
- Beach replenishment at Tuckerton Beach, which has suffered significant erosion, reducing the recreation and habitat benefits of the beach, and threatening South Green Street and the homes behind it.
- Marsh strengthening at the E.B.Forsythe National Wildlife Refuge, which is undertaking a research project of great interest to our towns; that of using new thin layer deposition technology to build and strengthen the marsh. We want to work with the Refuge to determine appropriate locations for such marsh building, and provide suitable material for the efforts to ensure that their project is successful, and that our marsh is strengthened.
- Marsh restoration in the many areas where man-made gashes are found, perhaps made for lagoons that were never completed. This disturbs the continuity of the marsh system, restoration of which would provide additional habitat and protection from flooding and storm events.

Successful achievement of the overall project's objectives for each of these individual restoration projects will:

- 1) Increase the strength of the marsh system
- 2) Provide increased habitat
- 3) Provide increased protection to the communities of Little Egg Harbor and Tuckerton from flooding and storm events
- 4) Prevent additional erosion

Specifically, the dredging of three lagoon communities will remove silt that has built up to the point of blocking stormwater outfalls and impeding the passage of wildlife and boats, is estimated to result in approximately seven linear miles of stream area restored and opened. The dredged materials will be put to use to restore and replenish approximately 6 acres of marsh and wetlands, about .7 acres of beach, and to place erosion controls at three locations on Osborne Island across from Iowa Court on the Mystic Island Natural Lands Trust property. The dredging will occur in three lagoon communities: Tuckerton Beach (638 homes impacted); Paradise Island (87 homes impacted); and Osborne Island (313 homes impacted), for a total of 1,038 homes directly benefiting from the project. The habitat restoration will benefit numerous fish, reptile, amphibian, mammal and bird populations, to include the black-crowned night herons, red knot, and the American oystercatcher. It will indirectly benefit the entire two towns, (total population 23,412 US Census 2010), by strengthening the natural buffer from storm surges, protecting critical infrastructure, and preserving the tax base. The project will directly create an estimated 40 temporary jobs, and indirectly preserve the bayshore economic activities of fishing, crabbing, and oyster farming. In addition, it will support the research and pilot project currently underway at the E.B. Forsythe National Wildlife Refuge to examine the potential for marsh building via thin layer deposition techniques.

b. Priority:

The project location is a high priority from a number of perspectives. Little Egg Harbor Township and Tuckerton Borough are historic bayshore communities that together are home to 23,412 residents (US Census 2010). The towns are surrounded by thousands of acres of protected tidal wetlands. Nearby conserved lands include the Edwin B. Forsythe National Wildlife Refuge, which

protects more than 47,000 acres; 169 acres of the state protected Mystic Island Preserve; and the Great Bay Blvd Wildlife Management Area, a state owned and managed salt marsh area of 4,670 acres. These areas incorporate the natural conditions of beach, dune features, overwash fans, abandoned inlets, and extensive back marsh virtually unknown throughout most of the East Coast. The area also contains freshwater wetlands and maritime forests including stands of red cedar, American holly, oak and pine trees. New Jersey recently confirmed nesting black-crowned night herons here, a state-threatened species since 1999. The destruction of coastal maritime dune forests, due to development along the Atlantic shore, has greatly reduced habitat for these birds. The area is frequented by many other species including osprey, fox and diamond back terrapins. Thus, the importance of preserving this area is significant not just locally, but regionally and even nationally.

The impact of sea level rise and storm events is creating serious erosion problems, which in turn is posing a threat to the existing ecosystem as well as the communities that live tucked among the preserved lands. Because of the importance of the area, numerous groups have dedicated research to preserving the ecosystem. The Jacques Cousteau National Estuarine Research Reserve, Rutgers University, Stockton College, and the E. B. Forsythe National Wildlife Refuge all are examining the marsh ecosystem and how to best strengthen it, along with the benefits it confers in the form of flood prevention. In developing this project, we have worked with these research organizations to ensure that the concepts are appropriate in light of current research and established best practices. In addition, as the project details are designed, these partners will continue to work closely with us.

c. Sustained Benefits:

This project is anticipated to have sustained benefits in that the erosion controls will significantly slow or prevent the erosion of important shoreline that provides critical habitat as well as important protections to the adjacent residential area. By using such erosion control measures, naturalized to provide long-term stability, we are ensuring a lasting positive impact in this area. The impact of these improvements on flooding will be measureable by the reduction in frequency, intensity, and duration of the flood events experienced in the lagoon communities. Likewise, the marsh strengthening and restoration projects will provide a long term reinforcement of the marsh system. It is anticipated that maintenance planting will allow these areas to fully naturalize in a short period of time, and require little additional re-investments. Because the existing communities are fully built out, and the surrounding lands are entirely protected, this project is not impacted by increased urbanization of the area. The restoration measures are intended to help protect the marsh and the communities of Little Egg Harbor and Tuckerton from the impacts of sea level rise and climate change. Homeowners in the impacted neighborhoods are far along in the process of elevating homes, but the key protections provided by a strong and healthy marsh system are critical to the continued survival of these bayshore communities.

d. Leveraging:

This project directly complements a project being undertaken on the E.B.Forsythe Wildlife Refuge funded through the internal DOI Mitigation Funding. The Refuge is studying a technique of “thin layer deposition” as a method of replicating and hastening the natural process of marsh building. They are working to identify locations appropriate to pilot this technique, and to establish standards for the type of material appropriate for such a project. As the Refuge surrounds the communities of Little Egg Harbor and Tuckerton, and as we have a need to conduct dredging in order to engage in other resiliency projects and to preserve the quality of life and property values in our communities, it makes sense to work together to supply the material needed for the pilot project. Further, as initial tests have shown that the sediment that has built up in our streams and

lagoons has contamination below that which is regulated by the state, we are optimistic that the materials resulting from the dredging will be suitable for the deposition project.

This project also leverages ongoing resiliency efforts by multiple partners. NJ Future, through funding from a consortium of philanthropic organizations, is funding the local recovery manager who will manage the project. This was identified as a priority in work being conducted by ACOE and FEMA as part of the Sandy recovery efforts, as well as in the recently completed county Hazard Mitigation Plan, and builds on efforts undertaken by the Osborne Island Residents Association to protect their homes and lagoons.

e. Speed to Functionality:

Because the emplaced material will be immediately planted with native plants, there will be immediate benefits in terms of habitat creation, buffering from storm events, and flood protection. As the vegetation becomes more established, this benefit will increase. Some targeted sections for marsh restoration are areas where erosion has eaten away at the marsh until it is alarmingly close to critical infrastructure, including evacuation routes that serve over 1000 homes. These roads flood regularly, and flood mitigation benefits will be immediately and measurably apparent.

C. Youth and/or Veteran Engagement:

Little Egg Harbor Township and Tuckerton Borough have entered into a partnership with the Conservation Corps. This national non-profit will work with local Corps Network partners to identify local youth and veterans, train them in marsh restoration, and man work crews to plant the reclaimed marshland with native plants. This will immediately stabilize the area and set the stage for a complete natural re-vegetation. Each work crew will be overseen by two trained staff members, to ensure safety and adherence to the established planting plan. This training will provide lasting benefits in terms of training and field experience in ecological restoration, native landscaping, and other transferrable skills. A total of 6,080 hours, at \$23.14 an hour, or \$140,691.20 has been budgeted for this work, assuming that two crews of eight people each (6 Corps members and 2 Crew leaders per crew) will be working for 10 weeks. Safety will be ensured via proper training, supervision, and adherence to a site and project specific health and safety plan.

D. Collaboration and Partnerships:

This project builds upon work currently underway by a number of partners with significant expertise in living shoreline development, resiliency planning, construction management, and community outreach and planning. It builds upon the studies currently underway by the EB Forsythe Refuge, Rutgers University, and recent planning activities led by Ocean County. In kind support valued at \$30,000 is being provided by NJ Future, in the form of a Local Recover Manager who will serve as the project manager. Funding in the amount of \$61,500 has already been expended by the Osborne Island Residents Association in the development of dredge plans and permits. The State Department of Environmental Protection is working with us to revise the dredging plans and to identify appropriate restoration efforts on the Mystic Island Natural Lands Trust. Federal agencies to include FEMA, ACOE, and the E.B. Forsythe National Refuge, are working with us on planning, evaluation of flood control alternatives, and identification of marsh strengthening measures, respectively. Please see support letters for full descriptions of the partners and their role in the project; below is a summary of this information:

- Army Corps of Engineers, via a project request for assistance with dredging to enhance shoreline protection by development of living shorelines. The evaluation of alternatives for flood risk management has been added to the Hurricane Sandy project list for the Continuing Authorities

Program (CAP), with a specific focus on the need for shoreline protection to expand the buffer zone between developed infrastructure and the Bay, with dredged materials serving as a source for these materials.

- The Corps Network: partnering on the project and will provide two Conservation Corps crews for a ten week period for the shoreline restoration planting component of the project. Their model provides training, education, and supportive services to set young people on a defined path to post-secondary education, sustainable employment, and a lifetime of civic engagement.
- New Jersey Department of Environmental Protection: The NJ DEP is a strong and critical partner. Not only have we been working closely together on developing updated permit submittals for the dredging portion of the project, we have also engaged in discussions on how the beneficial reuse of the dredged materials can help to solve a critical problem to both Little Egg Harbor Township in the form of increased flooding and threatened infrastructure along Iowa Court on Osborne Island, as well as to the Mystic Island Natural Lands Trust eroding shoreline. NJDEP is working with Little Egg Harbor to determine the most beneficial measures that can be taken to strengthening this shoreline and protect it from future erosion.
- Federal Emergency Management Agency: FEMA has been working closely with Little Egg Harbor Township and Tuckerton Borough on Sandy Recovery efforts since the storm hit. This project has been identified as a priority in the planning documents developed for the towns by FEMA, and they will continue to provide technical assistance to move the project forward.
- US Department of the Interior Fish and Wildlife Service Edwin B. Forsythe National Wildlife Refuge: The E.B. Forsythe National Wildlife Refuge borders our communities and has similar concerns regarding the eroding marsh. This project will build upon one already underway in the refuge to study the potential for thin layer deposition as a method of improving the marsh system, by potentially providing the materials necessary to implement the deposition envisioned. This partnership has the potential to significantly advance the science of thin layer deposition and serve as a global model for this method of marsh enhancement.
- Rutgers Jacques Cousteau National Estuarine Research Reserve (JC NERR): JC NERR maintains a Wildlife management area abutting Little Egg Harbor and Tuckerton, as well as a Marine Field Station and Coastal Center in Tuckerton, which provides research and education on marine and estuarine science. They will work with us to help identify appropriate areas within the reserve that are most vulnerable and could benefit from the proposed restoration measures, as well as advise on the best practices and most effective techniques. In addition, they are working with our towns to provide education to the general public on local vulnerabilities and options for future restoration and resiliency projects.
- NJ Future: NJ Future is a nonprofit, nonpartisan organization that employs original research, analysis and advocacy to build coalitions and drive land-use policies. They are funding a local recovery manager to work with the two towns to engage the community in discussions about resiliency from a social, economic, and environmental perspective; develop resiliency plans; and manage projects such as this one to improve the resiliency of the communities to future storm events. This direct contribution to the management of the project is estimated at \$30,000 for the life of the project.
- Ocean County Planning Board: The County recently completed a robust Hazard Mitigation Plan, with participation from Little Egg Harbor and Tuckerton. The need for the dredging component of this project was identified as a priority for both communities in this plan. The County is serving on the Steering Committee that will be implementing this project, and will be providing planning and technical assistance.
- Osborne Island Residents Association: The OIRA is a group of home owners in the Osborne Island neighborhood of Little Egg Harbor. They have expended over \$61,500 toward the development of dredging plans and permits that form the initial phase of this project. Unfortunately, Hurricane Sandy hit before the dredging could be completed, which changed the project somewhat. However, we are able to make use of the prior work in the development of the plans and permits for the expanded dredging / restoration project.

E. Work Plan & Logistics:

- a. **Project Team:** The project team consists of a diverse group of individuals and organizations, led by a Steering Committee made up of key players and elected officials, as well as emergency management personnel. Below is a description of the roles of the most central personnel to the project success:

Key Personnel	Affiliation	Role and Project Contribution
Mike Fromosky	Assistant Business Administrator, Little Egg Harbor Township	Mike and Jenny will ensure that the Mayor and Councils of the respective towns are engaged and informed of the project. As Little Egg Harbor will serve as the grant recipient, Mike will ensure that the grant conditions are met, and that all procurement requirements are followed.
Jenny Gleghorn	Business Administrator, Tuckerton Borough	
Leah Yasenchak	Local Recovery Manager, NJ Future	As the overall project manager on behalf of Little Egg Harbor and Tuckerton, Leah will oversee the procurement process for all design and construction work, will work with all the team partners to secure permits and approvals, will manage the identification of restoration areas, and will develop all required reporting documentation. In addition, Leah will staff the Steering Committee that will ensure the project stays on track and is done in an open manner with full accountability to the community and elected officials.
Suzanne Dietrick	Chief, Office of Dredging and Sediment Technology, Site Remediation Program, NJ DEP	Suzanne will continue to work with the towns to develop the dredging plans and permit applications necessary.
Martin Rapp	NJ Natural Lands Trust, NJ DEP	Martin is the representative of the Natural Land Trust for the Mystic Island Preserve, and will be working with us to determine the appropriate type and location of the erosion control measures, as well as facilitating the necessary approvals.
Lisa Auermuller	Watershed Coordinator, Jacques Cousteau National Estuarine Research Reserve	Lisa will be assisting in public education and outreach; as well as participating on the project Steering Committee and ensuring that restoration projects are in line with sound scientific principles.
Virginia Rettig	Refuge Manager, United States Department of the Interior, Fish and Wildlife Service, Edwin B. Forsythe National Wildlife Refuge	Virginia will be keeping us informed of the needs of the Refuge for materials to advance their thin-layer deposition studies, and will work with us to ensure the two projects are complementary and advance the protection of the refuge, the communities, as well as advance our understanding of this emerging technique.
Mary Ellen Ardouny	President and CEO, Conservation Corps	Mary Ellen will be working with local Corps Network members to recruit youth and veterans to participate in the planting restoration component of the project.

b. Work Plan:

As the grantee, Little Egg Harbor Township assumes responsibility for each component of the successful implementation of this project. However, various entities will work with the Township to ensure full compliance with project goals and objectives. These are listed below, along with a description of each major task.

- **Design and Engineering:** Little Egg Harbor Township will retain a qualified engineering firm to build upon the existing design for the dredging, and to develop plans for a comprehensive restoration plan involving the placement of erosion controls, beach replenishment, thin layer deposition, and marsh restoration. The design will include comprehensive planting plans with native species designed to quickly stabilize restored areas and provide maximum habitat and shoreline protection.
- **Permitting:** as part of the engineering contract, the engineering firm will be responsible for the development of all required permit applications. NJ Future, as project manager, will work with regulatory agencies to address any issues and ensure a smooth permitting process.
- **Project Management:** NJ Future will ensure compliance with all grant terms and conditions, including reporting requirements, will managing the procurement process, and review and approve invoices based on work completed.
- **Dredging:** The dredging will be competitively bid in conformance with all applicable procurement requirements. The design engineer will oversee the work of the contractor and ensure that dredging is done appropriately with all safety and environmental controls in place, and that the material is staged properly for restoration work. Dredge work is anticipated to be mechanical dredging via a barge mounted excavator.
- **Erosion Controls:** NJ Future, as project manager, will coordinate with the design engineer and the representatives at NJ DEP's Natural Lands Trust to ensure proper placement of approved erosion control measures. Erosion control measures are anticipated to consist of geotubes placed in three areas along Mystic Island Preserve where erosion has been significant, anchored in place, and backfilled to create a strong shoreline.
- **Beach Replenishment:** NJ Future will coordinate with the design engineer and officials at Tuckerton Borough to oversee the beach replenishment project at Tuckerton Beach.
- **Thin Layer Deposition:** NJ Future will coordinate with officials at the E.B. Forsythe Refuge and their project partners on the location and quantities of material needed for the thin layer deposition project, and will work with the dredging contractor to appropriately divert the required material.
- **Marsh Restoration:** NJ Future will coordinate with the design engineer and the dredging contractor, as well as officials at the Jacques Cousteau National Estuarine Research Reserve to ensure proper placement and management of materials used in the marsh restoration component of the project.
- **Planting:** As each area is made ready for planting activities, the Conservation Corps, in coordination with the project manager, will deploy crews for planting. The design engineer will provide oversight to ensure that the appropriate plant materials are placed correctly and at the proper time to maximize project success.
- **Monitoring:** the restored areas will be monitored each season by the respective officials: erosion controls – Natural Trust representatives and Little Egg Harbor Township Public Works; beach replenishment - Tuckerton Borough Public Works; thin-layer deposition – E.B. Forsythe Refuge; Marsh Restoration – Jacques Cousteau National Estuarine Research Reserve (JC NERR).

Schedule:

Major Activity	May '14	June '14	July '14	Aug '14	Sept '14	Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15	April '15	May '15	June '15	July '15	Aug '15	Sept '15	Oct '15	Nov '15	Dec '15	Jan '16	Feb '16	March '16	April '16
Design and Engineering																								
Permitting																								
Project Management																								
Dredging																								
Erosion Controls																								
Beach Replenishment																								
Thin Layer Deposition																								
Marsh Restoration																								
Planting																								
Monitoring																								

c. Monitoring and Measuring Performance:

The conservation objectives of this project are to demonstrate beach habitat quality improvements, install erosion control measures, open and restore clogged stream segments, restore wetlands, and create and retain jobs. Each of these objectives has quantifiable measures associated with them, which will be evaluated at project completion, and biannually thereafter. The monitoring will be conducted by those most appropriate to do so, given the location of the restoration. Thus, beach habitat quality improvements will be overseen by Tuckerton Borough officials. The effectiveness of the erosion control measures will be monitored by the Natural Trust representatives and Little Egg Harbor Township Public Works officials. The stream segments will be monitored by township officials and by Rutgers JC NERR. The wetlands restoration will be monitored by officials at the E.B. Forsythe Refuge and Rutgers JC NERR. The majority of these groups are represented on the Resiliency Steering Committee of Little Egg Harbor and Tuckerton, and thus there is an ongoing organization to collect this information and report back any lessons learned or required corrective measures.

d. Return on Investment:

The total cost of the project is projected at \$2,228,541, with \$2,137,041 requested via this grant application. The benefits are not as straightforward to measure as projected costs. A total of 1038 homes will receive a direct and positive impact from the dredging activity, which will maintain the property values of the homes, and result in a direct positive impact in the form of annual taxes to the communities of Tuckerton and Little Egg Harbor of \$9,414,660 (based on an average annual tax of \$9,070 per waterfront home). As property values have already begun to drop in these communities, this project, which will simultaneously preserve the value of the homes while providing protections

against future storms, is a critical measure in ensuring that this source of tax revenue is not lost to the community.

According to the World Wildlife Fund, the recreational functions of wetlands are valued at \$492 per hectare, and the flood control and storm buffering functions valued at \$464 per hectare per year, resulting in an estimated return of \$1,912 per year for the projected 6 acres of marsh wetland that will be restored by this project (*Living Waters, Conserving the Source of Life: The Economic Values of the World's Wetlands*, World Wildlife Fund. Gland/Amsterdam, January 2004). This does not take into account the conservation value of the restored wetlands, as habitat to many species of birds and terrapins, along with other animals. The estimated cost of mitigation improvements to Iowa Court is \$300,000, based on an engineer's estimate provided by T&M Engineers on January 7, 2014. This is the cost that will be borne by the community for this one road, should erosion of the marsh continue to threaten this evacuation route. This is but one of the many roads threatened by the eroding marsh. The value of the beach replenishment is even less straightforward, as Tuckerton beach is a small beach used mainly by local residents. However, it is clear that continued erosion threatens more than the recreational value of this resource, but also exposes the roads and homes behind the beach to greater storm impacts and wave action.

e. Risk:

The risks of project failure or negative impacts are negligible. The dredging component of the project is well understood and consists of maintenance dredging that has been exacerbated by silt deposited by Hurricane Sandy, but is essentially a routine activity that has been performed in the past with no negative impacts. The restoration component is anticipated to consist of four distinct components: erosion controls, beach replenishment, marsh strengthening via thin layer deposition, and marsh building. The location, design, and implementation of these methods will be carefully researched to ensure a beneficial impact.

The erosion controls are anticipated to be placed along the shoreline adjacent to an evacuation route. Should the control fail at some point in the future, it would likely result in an eventual return to the current situation, not a worsening of the erosion problems. However, these erosion controls have been used in many locations, are well understood, and can be designed to account for the projected wave action and environment within which they will be placed, thus minimizing the risk of failure. The beach replenishment project is also extremely well understood, and while it is expected that ongoing erosion will eventually result in the need for additional replenishment, this is not considered a failure of the project, and will not result in negative impacts on humans or wildlife. The replenishment itself, however, will provide a place of recreation and habitat, as well as increasing the buffer between the waves, storm surge, and the adjacent development. Marsh strengthening via thin layer deposition is an emerging technique that is currently being piloted around the globe. Once such study is occurring in the backyard of Little Egg Harbor and Tuckerton, at the E.B. Forsythe National Wildlife Refuge. Through a powerful partnership, DOI is studying the application and benefits this marsh strengthening technique has. We want to ensure that, if the dredge material is suitable, we are able to assist in this project by providing the materials necessary to further this groundbreaking research, while strengthening our natural protections. This study will be carefully developed and monitored, and used in carefully controlled areas where the risk of failure can be controlled. Building the marsh in areas where it has been previously cut away, as well as behind installed erosion barriers, is a well understood technique. Through careful design, we can ensure that any risk of failure is minimized.

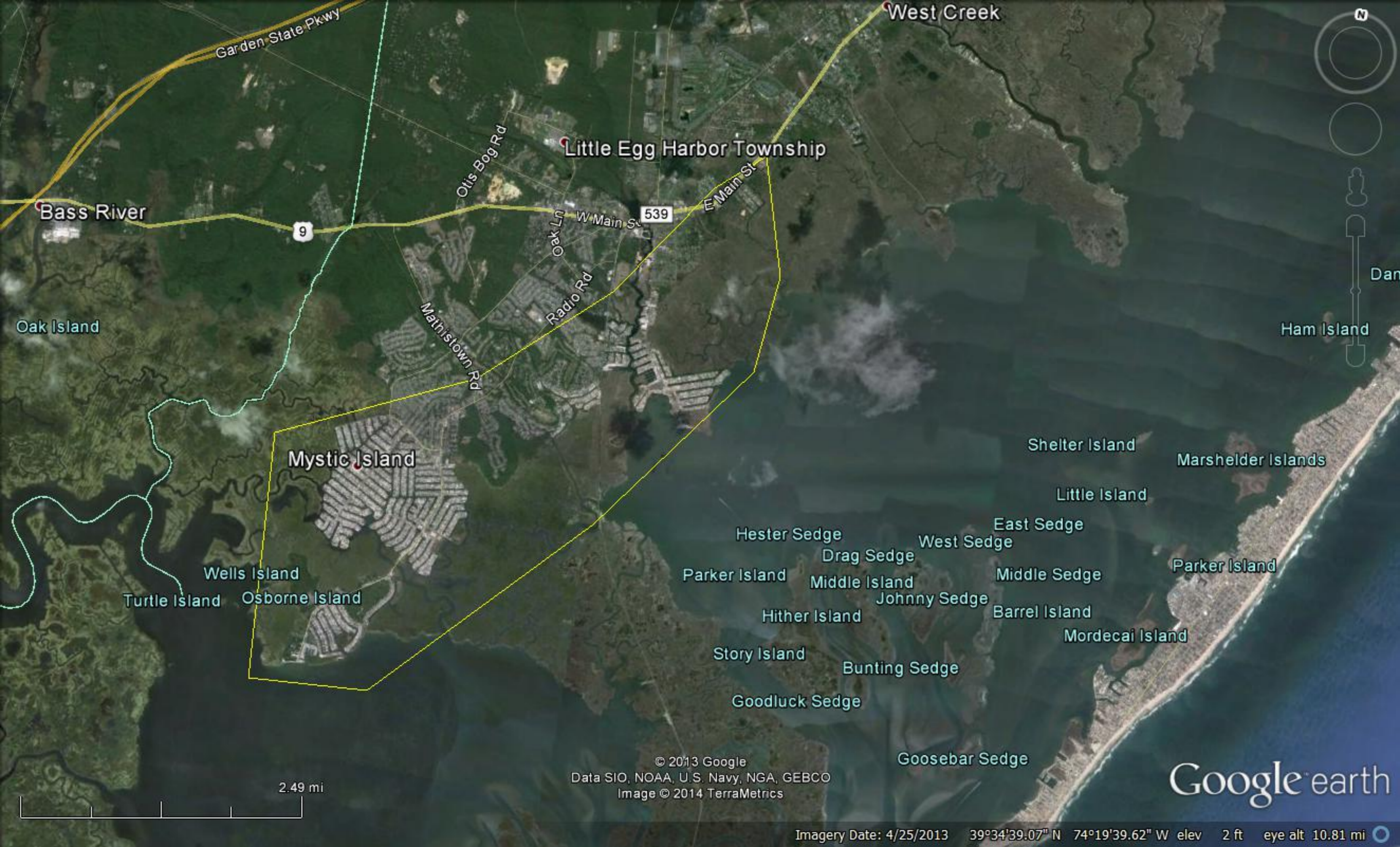
f. Permits and Approvals:

Permits are necessary for the dredging component of the project, from both the New Jersey Office of Dredging and Sediment Technology and the Army Corps of Engineers Regulatory Branch of the

Philadelphia District. The dredging project at Osborne Island had completed design and permitting phases prior to Hurricane Sandy. This work was never completed, and the project now envisioned would require a modification of the existing permits. Thus, it is anticipated that a revised Waterfront Development Permit application will be submitted to the NJ DEP in early August, and a subsequent permit application submitted to the Army Corps in September, 2014. These revised applications will take into account the additional materials that were deposited in the streams and lagoons during Sandy, will include the waterways of Tuckerton Beach and Paradise Cove in addition to Osborne Island, and will provide for the beneficial reuse of the spoils for restoration, strengthening, and erosion control

g. Safety:

A site-specific health and safety accident prevention plan will be prepared to identify, evaluate, and provide control measures for any potential safety hazards. All site operations will be performed in accordance with applicable state and local regulations and procedures, as well as Occupational Safety and Health Administration requirements, specifically 29 CFR 1926. All workers at the site will be required to comply with the site specific health and safety plan. A health and safety monitor will be present during the dredging activities, and trained supervisors will oversee the planting crews. As contamination has not been encountered in the project area, the hazards are anticipated to consist of those inherent in working around waterbodies and large equipment, and those from insect bites or contact with plants.



Garden State Pkwy

West Creek

Bass River

Little Egg Harbor Township

9

Otis Bog Rd

Oak Ln

W Main St

539

E Main St

Radio Rd

Mathistown Rd

Oak Island

Ham Island

Mystic Island

Shelter Island

Marshelder Islands

Little Island

Hester Sedge

Drag Sedge

West Sedge

East Sedge

Parker Island

Middle Island

Johnny Sedge

Middle Sedge

Parker Island

Hither Island

Barrel Island

Mordecai Island

Story Island

Bunting Sedge

Goodluck Sedge

Goosebar Sedge

Wells Island

Turtle Island

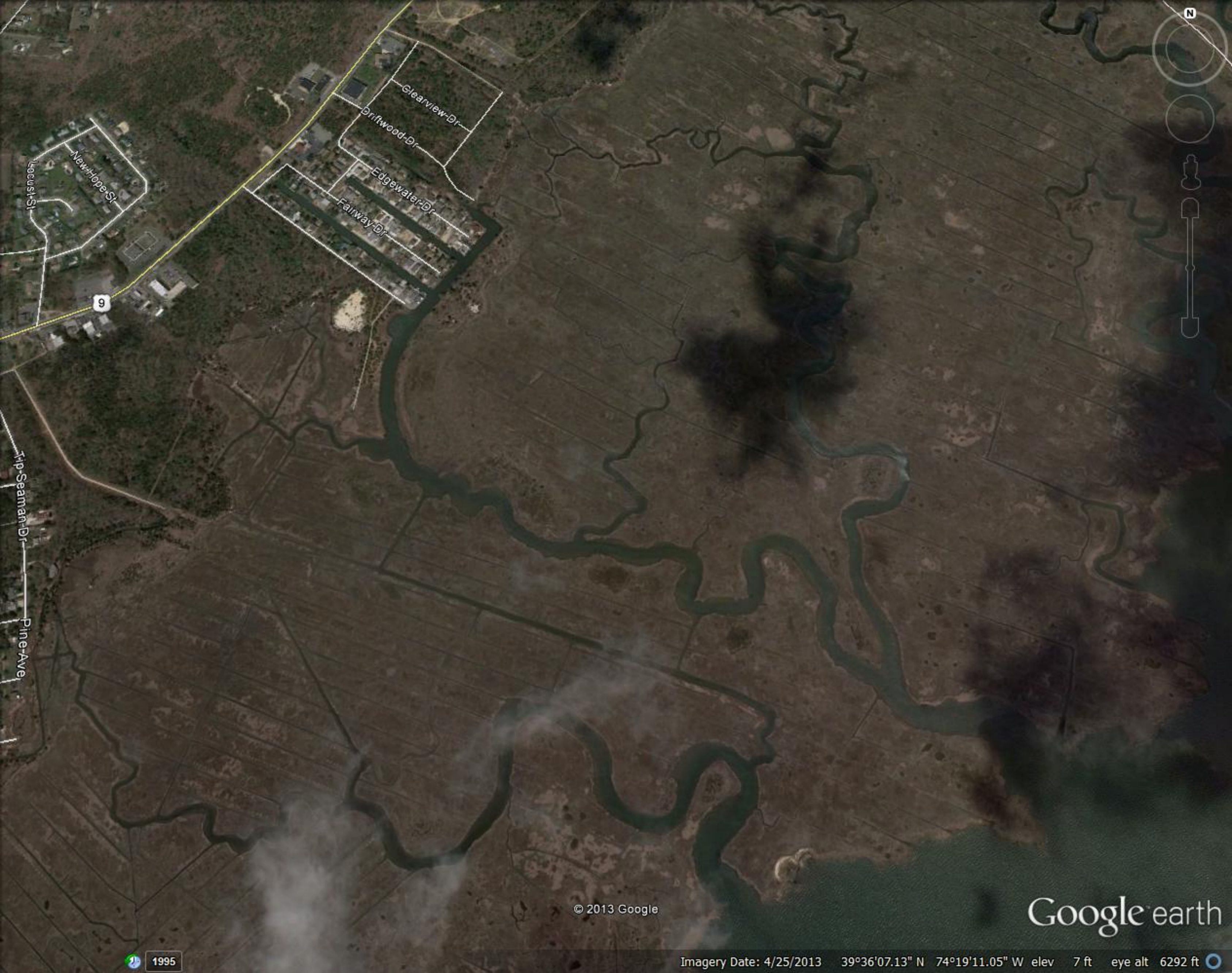
Osborne Island

2.49 mi

© 2013 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2014 TerraMetrics

Google earth

Imagery Date: 4/25/2013 39°34'39.07" N 74°19'39.62" W elev 2 ft eye alt 10.81 mi

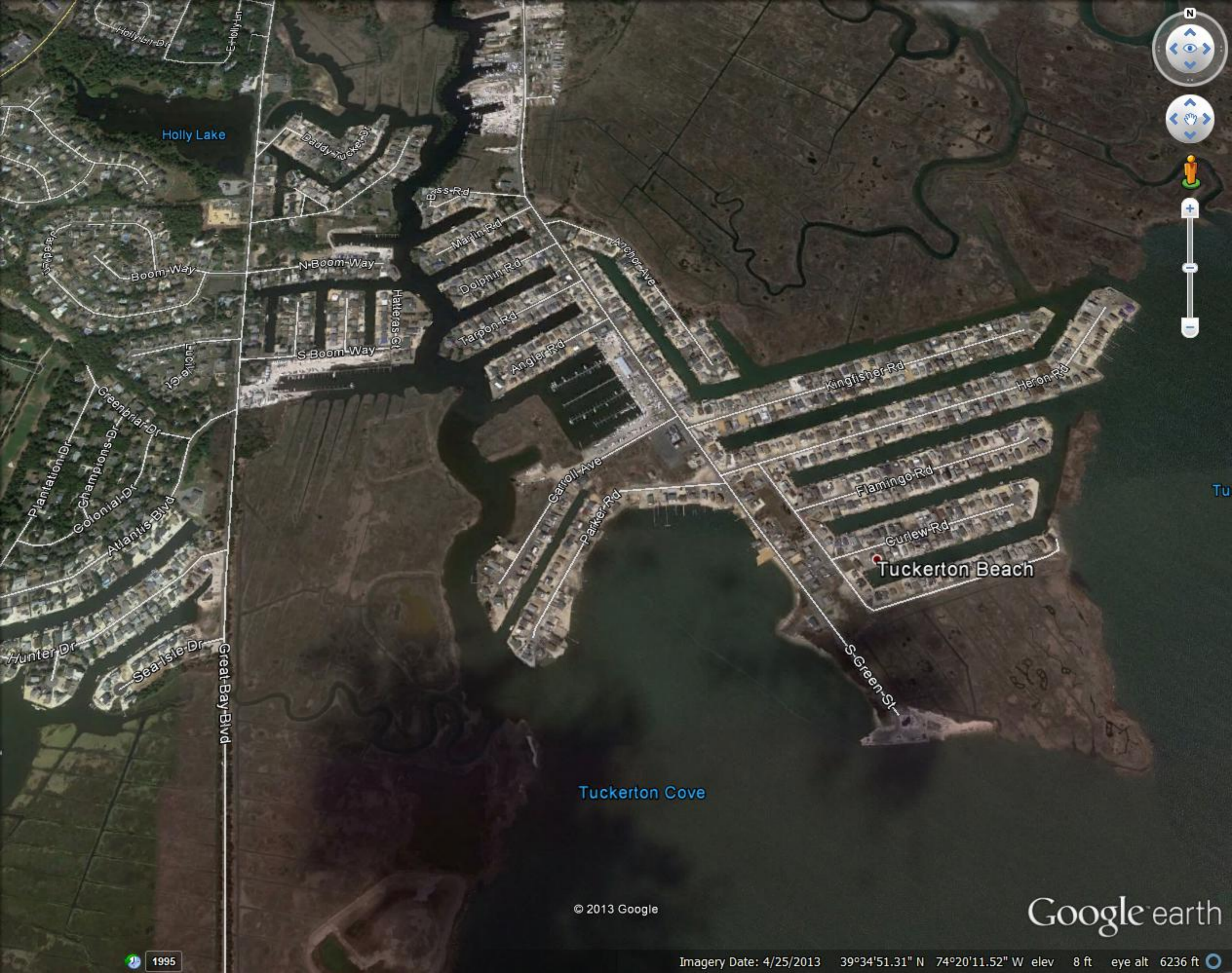


© 2013 Google

Google earth

1995

Imagery Date: 4/25/2013 39°36'07.13" N 74°19'11.05" W elev 7 ft eye alt 6292 ft



Holly Lake

Daddy Tucker Dr

Boys Rd

Marlin Rd

Dolphin Rd

Tarpon Rd

Angler Rd

Carroll Ave

Parker Rd

Kingfisher Rd

Heron Rd

Flamingo Rd

Curlew Rd

Tuckerton Beach

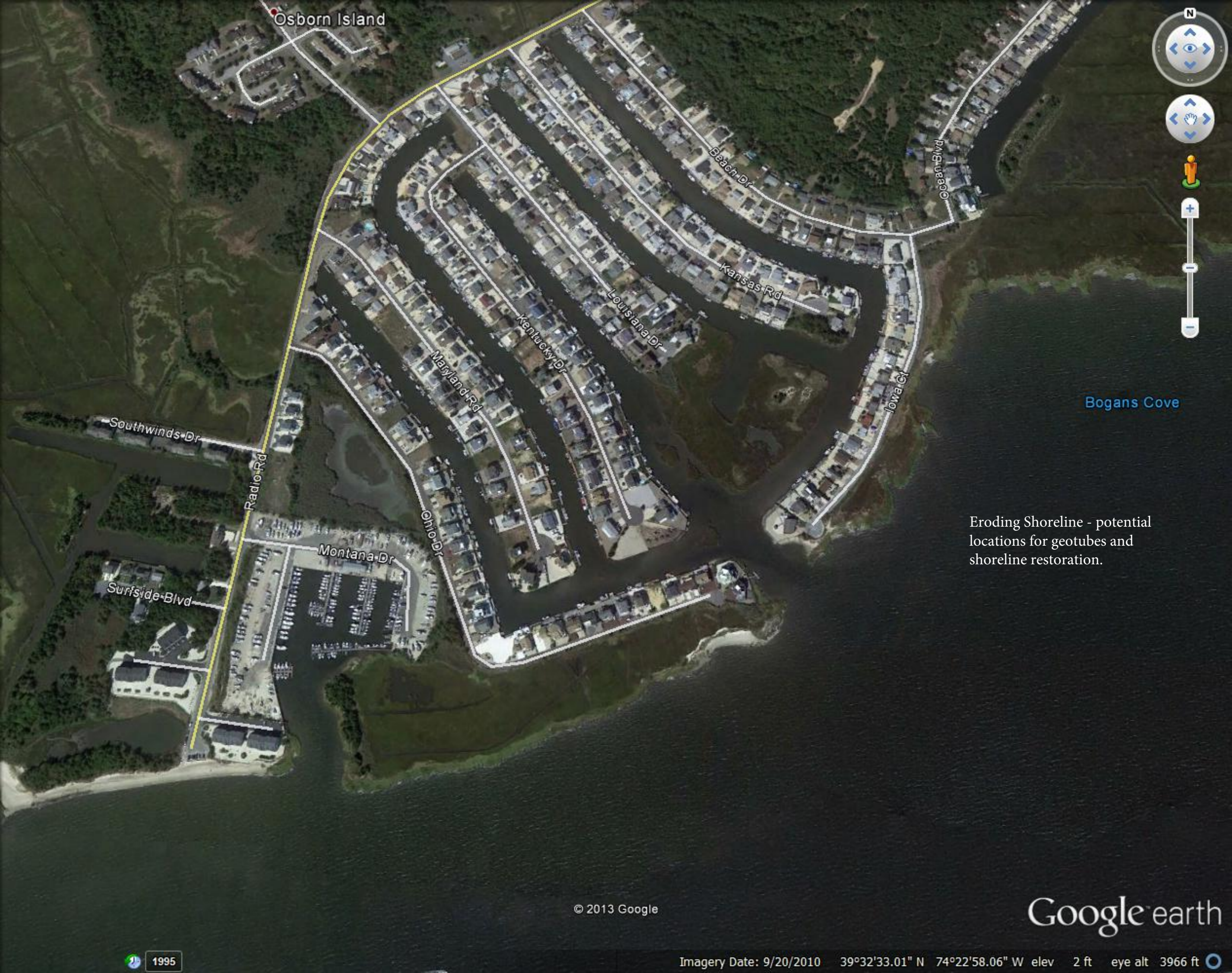
Tuckerton Cove

© 2013 Google

Google earth

1995

Imagery Date: 4/25/2013 39°34'51.31" N 74°20'11.52" W elev 8 ft eye alt 6236 ft



Osborn Island

Beach Dr

Kansas Rd

Louisiana Dr

Kentucky Dr

Maryland Rd

Ohio Dr

Montana Dr

Southwinds Dr

Radio Rd

Surfside Blvd

Ocean Blvd

Bogans Cove

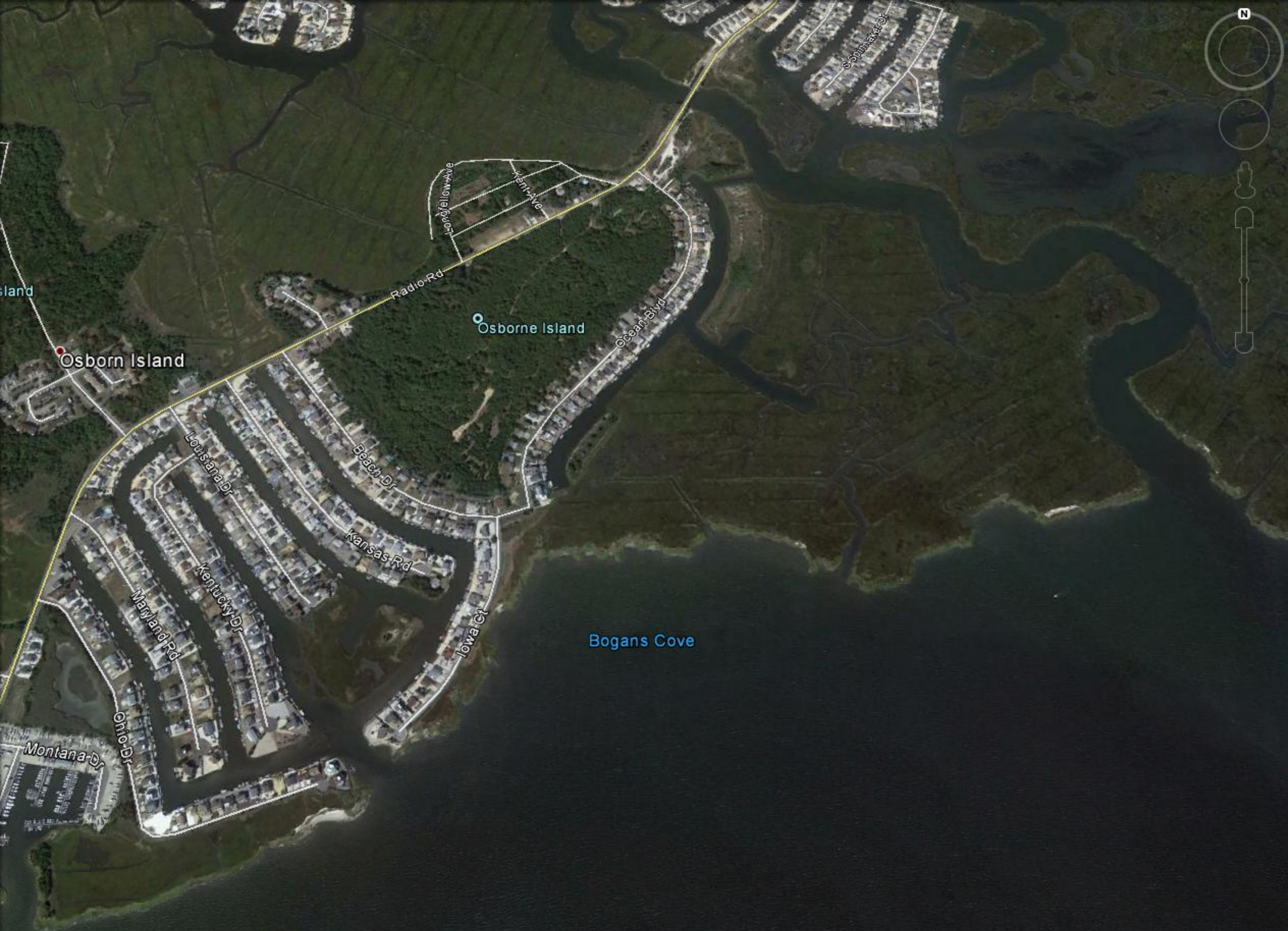
Eroding Shoreline - potential
locations for geotubes and
shoreline restoration.

© 2013 Google

Google earth

1995

Imagery Date: 9/20/2010 39°32'33.01" N 74°22'58.06" W elev 2 ft eye alt 3966 ft



© 2013 Google

Google earth

1995

Imagery Date: 9/20/2010 39°32'44.00" N 74°22'32.02" W elev 1 ft eye alt 5878 ft



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

PHILADELPHIA DISTRICT, CORPS OF ENGINEERS
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3391

Planning Division

January 29, 2014

Mayor Arthur R. Midgley
Township of Little Egg Harbor

Mayor George "Buck" Evans
Borough of Tuckerton


C/O LEH Administrative Justice Complex
665 Radio Road
Little Egg Harbor, NJ 08087

Dear Mayors Midgley and Evans:

I am pleased to inform you that, in response to your requests, the projects in Little Egg Harbor Township and Tuckerton Borough to evaluate alternatives for flood risk management have been added to the Hurricane Sandy project list for the Continuing Authorities Program (CAP). Specifically, we understand there is a significant need for shoreline protection to expand the buffer zone between developed infrastructure and Barnegat Bay. Dredging of severely shoaled lagoons could provide ready materials for shoreline restoration and protection.

We are interested in working with your communities to move these projects forward. We understand that you are applying for USDOJ funding under the Hurricane Sandy Coastal Resiliency Competitive Grant program. We believe that this is an excellent opportunity to leverage expertise and funding, and fully support your application. We look forward to working with you on these critical projects.

Sincerely,


Peter R. Blum, P.E.
Chief, Planning Division



January 30, 2014

Mayor Arthur R. Midgley
Township of Little Egg Harbor

Mayor George "Buck" Evans
Borough of Tuckerton

c/o LEH Administrative Justice Complex
665 Radio Road
Little Egg Harbor, NJ 08087

Dear Mayors Midgley and Evans:

Please accept this letter of commitment for the Township of Little Egg Harbor and the Borough of Tuckerton's NFWF Hurricane Sandy Coastal Resiliency Competitive Grants Program application. The Corps Network is excited about our partnership on this project and is prepared to provide two Conservation Corps Crews for a ten week period for the communities' proposed shoreline restoration planting project.

We can complete high quality projects enhancing resilient natural systems and restoring wildlife habitat along the New Jersey bayshore. Our long history of responding to national disasters and meeting critical needs in a cost effective manner while employing, training and providing service opportunities for local young people and veterans is a perfect fit for this important project in Little Egg Harbor and Tuckerton.

Founded in 1985, The Corps Network (TCN) represents approximately 130 state, local, and non-profit organizations, many of which have been in existence and changing lives and communities through service for several decades. Since it was established, TCN member Corps have engaged more than 750,000 young people in service. At present, TCN member Corps enroll almost 30,000 Corpsmembers a year, the majority of whom come from diverse and disadvantaged backgrounds, many of whom are looking for a second chance to succeed in life.

The founders of what is now TCN (formerly the National Association of Service and Conservation Corps) drew their inspiration from the Civilian Conservation Corps (CCC), the Depression-era program that engaged and supported three and a half million young men in natural resource conservation and development. Similarly, today's Service and Conservation Corps – the heirs of the CCC – engage youth and young adults in conservation-related community service and service learning; provide training, education, and full scope of supportive services; and set young people on a defined pathway leading to post-secondary education, sustainable employment, and a lifetime of civic engagement.

The Corps Network will oversee two 8 person crews for ten weeks. The Township of Little Egg Harbor and the Borough of Tuckerton will provide project oversight and management of project work and The Corps Network will oversee the administrative functions of the crews. The crews will consist of 6 corps members and 2 crew leaders on each crew. In total there will be 6080 hours served over the ten weeks. The Corps Network and selected member organization will plan to recruit local and regional Corpsmembers with proper education and / or work experience. The Corps Network will provide training and technical assistance and subgrant the Corps management to a TCN member organization.

Upon notification of selection for an award, The Corps Network will reach out to their network of Service and Conservation Corps to determine the best fit for the project. The Corps Network will match an organization based on location and project capacity. Corps members will then recruit youth first from the communities of Little Egg Harbor and Tuckerton, and if necessary, will expand recruitment efforts to the larger South Jersey region.

The Conservation Corps will mobilize on-site upon completion of the placement of dredge spoils on the marsh. Corps member will have primary responsibility for implementing the shoreline restoration planting that will be required to immediately naturalize the newly placed materials with native vegetation. Each work crew will be supervised by two qualified staff members, to ensure that the planting is done properly and according to planting plans developed by the design engineers.

The Corps Network is excited to partner with the communities of Little Egg Harbor and Tuckerton on this project, and we stand ready to mobilize to help make this important marsh stabilization project a reality.

If you or your staff have any additional questions, please contact Joe Gersen, Director of Government Relations, Public Lands Service Coalition, at jgersen@corpsnetwork.org or (202) 737-6272.

TCN wholly supports this application for grant funding.

Sincerely,



Mary Ellen Ardouny
President and CEO



State of New Jersey

CHRIS CHRISTIE
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Policy Implementation
401 E. State St. 7th fl., PO Box 420
Mail Code: 401-07D
Trenton, New Jersey 08625-420
Ph: (609) 633-2201 Fax: (609) 292-4608

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

January 30, 2014

David O'Neill
Vice President
Conservation Programs
National Fish and Wildlife Foundation
1133 15th Street, NW Suite 1100
Washington, DC 20005

Dear Mr. O'Neill:

I am writing to express the New Jersey Department of Environmental Protection's support of Tuckerton and Little Egg Harbor's shoreline restoration grant application through the Hurricane Sandy Coastal Resiliency Competitive Grant Program. The marsh systems that exist in the Barnegat and Great Bays are critical habitat, important open space, significant economic drivers, and indispensable buffers for our bayfront communities. Reversing the erosion that has been occurring in these areas, and restoring portions that have been cut away intentionally over the years, is beneficial to the environment.

This project is of particular significance to the state, as one potential area of restoration is on Mystic Island Natural Trust Land. Portions of this state-protected land have demonstrated severe erosion. We are very interested in working with Little Egg Harbor to discuss measures for strengthening the Mystic Island shoreline in an appropriate, environmentally sensitive manner that takes into account the recreational and access needs of the general public.

The New Jersey Department of Environmental Protection endorses this project provided the project meets all of the Department's regulations and receives all necessary approvals. Please feel free to contact me if you require additional information at Elizabeth.Semple@dep.state.nj.us.

Sincerely,

Elizabeth Semple
Manager, NJDEP Land Use Management

U. S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
New Jersey Sandy Recovery Field Office
307 Middletown Lincroft Rd
Lincroft, NJ 07738



FEMA

January 29, 2014

David O'Neill
Vice President
Conservation Programs
National Fish and Wildlife Foundation
1133 15th Street, NW Suite 1100
Washington, DC 20005

Dear Mr. O'Neill:

FEMA has been working with Tuckerton and Little Egg Harbor on Sandy recovery efforts, developing Recovery Management Plans for both communities. The need for lagoon dredging and the need for protecting the Osborne Island infrastructure, (especially Iowa Court), were specifically identified as priorities for Little Egg Harbor Township. This project is consistent with previous planning efforts, and will result in a stronger community with a greater ability to weather addition storms, both physically and economically.

Although these projects are not eligible for additional FEMA administered Stafford Act Funding, FEMA supports the shoreline strengthening project proposed by these two towns. Both towns suffered significant damage during the storm, and have a strong desire to rebuild. This is an important step towards recovery. We have been working in this area of Ocean County subsequent to Sandy. We have provided post-storm assessments and planning, plus served as a conduit and advocate for resources for the area. FEMA will continue to support the efforts of these towns through the provision of technical assistance, identifying resources, and making connections between the towns and potential partnering institutions. We support this application.

Sincerely,

John Covell
Director, NJ Sandy Recovery Office



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Edwin B. Forsythe National Wildlife Refuge
800 Great Creek Road, PO Box 72,
Oceanville, New Jersey 08231



January 29, 2014

Mayor Arthur R. Midgley
Township of Little Egg Harbor

Mayor George "Buck" Evans
Borough of Tuckerton

c/o LEH Administrative Justice Complex
665 Radio Road
Little Egg Harbor, NJ 08087

Dear Mayors Midgley and Evans:

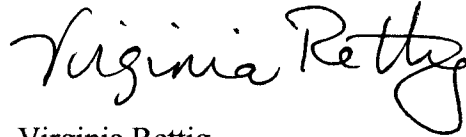
This letter is to confirm my support for your proposed coastline habitat restoration project, which is near the Edwin B. Forsythe National Wildlife Refuge in your townships. The Refuge protects more than 47,000 acres of southern New Jersey coastal habitats which provides habitat for migratory birds and other wildlife. The refuge's location within the Atlantic Flyway makes it an important link for birds in migration. Its value for the protection of water birds and their habitat continues to increase as people develop the New Jersey shore.

The erosion of the marsh in your townships is of concern. Your project is similar to those planned within the Refuge to be conducted using Resiliency funding already received from the Department of the Interior to study the potential for thin layer deposition as a method of improving the marsh system. The Little Egg Harbor / Tuckerton proposed project could leverage this work by using this emerging technique, and by potentially providing materials through proposed dredging activities for placement on the Refuge.

There is great opportunity for us to work together should your needs and the Refuge's overlap. I look forward to working with you on this project to share results from our studies, ensure effective identification of areas for restoration, and develop a model that can be replicated globally.

Given the important benefits of your proposed work to the areas in the vicinity of the Refuge, and the potential to share lessons learned, I support your project proposal. Thank you for your interest in working with E.B. Forsythe National Wildlife Refuge.

Sincerely,

A handwritten signature in black ink that reads "Virginia Rettig". The script is fluid and cursive, with the first name "Virginia" written in a larger, more prominent hand than the last name "Rettig".

Virginia Rettig
Refuge Manager



Jacques Cousteau National Estuarine Research Reserve
Coastal Education Center
130 Great Bay Blvd • Tuckerton, NJ 08087
Phone: 609-812-0649 Fax: 609-294-8597
www.jcnerr.org

January 28, 2014

David O'Neill
National Fish and Wildlife Foundation
1133 15th Street NW, Suite 1100
Washington, DC 20005

Dear Mr. O'Neill:

I am writing to express my support for the application submitted by the municipalities of Tuckerton and Little Egg Harbor for a marsh restoration project. The Jacques Cousteau National Estuarine Research Reserve (JC NERR) encompasses approximately 115,000 acres in southeastern New Jersey, including a great variety of terrestrial, wetland and aquatic habitats within the Mullica River-Great Bay ecosystem. This area is regarded as one of the least disturbed estuaries in the densely populated urban corridor of the Northeastern United States. Occurring within the unique New Jersey Pinelands forest ecosystem, on the coastal plain and the barrier islands of the coastal margin, the Mullica River-Great Bay estuary is of special ecological value.

While little more than 1% of the Reserve is subjected to human development, the communities of Tuckerton and Little Egg Harbor abut the Reserve, and are home to the Rutgers University Marine Field Station and the Jacques Cousteau Coastal Education Center. The proposed project to use dredge spoils to strengthen the existing marsh system, expand the shoreline, and increase the marsh area is consistent with our objectives to increase the resilience of both our natural and built local environments.

We fully support this application, and will work with the communities to help identify areas within the marshes of Tuckerton and Little Egg Harbor that are most vulnerable and that would benefit from the restoration measures. We will assist in project design and implementation to ensure the methodology follows best practices and utilizes the most effective techniques. We also look forward to working with community leaders to provide the education and training about local vulnerabilities and options for future restoration and resiliency projects.

Sincerely,

A handwritten signature in dark ink, reading 'Lisa M. Auermuller'. The signature is fluid and cursive, with the first name 'Lisa' being the most prominent.

Lisa Auermuller
Watershed Coordinator



137 West Hanover Street
Trenton, NJ 08618
(609) 393-0008 *Tel.*
(609) 393-1189 *Fax*
www.njfuture.org

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Eileen Swan
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EXECUTIVE DIRECTOR
Peter Kasabach

January 27, 2014

Mayor Arthur R. Midgley
Township of Little Egg Harbor

Mayor George "Buck" Evans
Borough of Tuckerton

c/o LEH Administrative Justice Complex
665 Radio Road
Little Egg Harbor, NJ 08087

Dear Mayors Midgley and Evans:

As you know, New Jersey Future is a nonprofit, nonpartisan organization that employs original research, analysis and advocacy to build coalitions and drive land-use policies that help revitalize cities and towns, protect natural lands and farms, provide more transportation choices beyond cars, expand access to safe and affordable neighborhoods and fuel a prosperous economy. Founded in 1987, the organization brings together concerned citizens and leaders to promote responsible land-use policies. Today, our nonprofit nonpartisan organization offers a strong voice on policies for curbing sprawl and spurring community redevelopment.

We support Little Egg Harbor Township and the Borough of Tuckerton as you work to recover from Superstorm Sandy and plan for a more resilient future taking into account future storm events and sea level rise. This project brings together all aspects - recovery from Sandy, developing a more resilient future, improving the economy to ensure the community can continue to thrive, and recreating critical habitat that has been lost through erosion.

As you know, the local recovery manager we have placed in your towns is available to serve as the project manager for the implementation of this project. Leah Yasenchak is an experienced grant and project manager, and has been placed in your towns to ensure that you have the additional capacity needed to implement this and other recovery projects.

Sincerely,

Peter Kasabach
Executive Director

RICHARD WORK, CHAIRMAN
DONALD REED, VICE CHAIRMAN
JOHN P. KELLY, FREEHOLDER DIRECTOR
GERRY P. LITTLE, FREEHOLDER
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ELAINE McCRYSTAL
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JOHN C. BARTLETT, JR., FREEHOLDER ALTERNATE
C. ROBERTS MULLOY, ALTERNATE
ALAN W. AVERY, JR., ALTERNATE
EARL F. SUTTON, JR., ALTERNATE



OCEAN COUNTY PLANNING BOARD

P O Box 2191
Toms River, New Jersey 08754-2191
Telephone (732) 929-2054
Fax (732) 244-8396

DAVID J. McKEON
PLANNING DIRECTOR

JOHN C. SAHRADNIK
COUNSEL

ROBIN L. FLORIO
SECRETARY

January 30, 2014

Leah Yasenchak, PhD, AICP/PP, CEcD/EDP
New Jersey Future
Local Recovery Manager for Little Egg Harbor and Tuckerton
137 West Hanover Street
Trenton, NJ 08618

Re: Coastal Resiliency Grant: Living Shoreline Proposal - Osborn Island, Little Egg Harbor Twp

Dear Ms. Yasenchak:

I support the proposed project submitted by NJ FUTURE in partnership with Little Egg Harbor and the NJ Department of Environmental Protection (DEP). The improvements planned under the proposal will provide direct benefits to both the environment, adjacent homes and the associated infrastructure.

The area in question is relatively unusual in that the natural shoreline flanks and protects the entrance to a lagoon area in the southern most point in Ocean County. The land is owned by the NJ Department of Environmental Protection which is willing to work with the residents and municipality to enhance the natural shoreline and reverse years of erosion. In addition, the fill material required for the project is located in close proximity and creates another benefit by removing the material from adjacent navigation channels.

Please accept this letter in support of the project.

Sincerely,

David J. McKeon
Planning Director

DJM:dm

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SPECIAL ASSISTANCE/ACCOMMODATIONS UPON REQUEST.



OSBORN ISLAND RESIDENTS ASSOCIATION

PO BOX 425

LITTLE EGG HARBOR, NJ 08087-0425

January 24, 2014

Mayor Arthur R. Midgley
Township of Little Egg Harbor
c/o Administrative Justice Complex
665 Radio Road
Little Egg Harbor, NJ 08087

Dear Mayor Midgley:

I am writing to express The Osborn Island Residents Association's (OIRA) support of Little Egg Harbor and the Borough of Tuckerton's reconstruction of a living shoreline in the aftermath of Superstorm Sandy. OIRA is dedicated to preserving a quality environment and sustaining a true sense of neighborhood for everyone on Osborn Island. As you know, our community is a unique and pristine neighborhood of about 500 homes.

The residents of Osborn Island are acutely aware of the fragile state of our property and infrastructure. We have watched the significant erosion of the marsh with concern, and note the increasing frequency of floodwaters overtopping Iowa Court and other roads within the neighborhood. We are also impacted by the increased level of silt which has washed into our waterways, particularly during storm events. This blocks our storm water outfalls, further exacerbating flooding; clogs our waterways and reduces navigability; and negatively impacts our property values. This shoreline project would help address all of these concerns, by providing a beneficial reuse for dredge spoils as material for a strengthened marsh system, thus increasing the resiliency of the marsh that serves as a buffer to our homes and infrastructure.

OIRA has spent an over \$61,500 of private, individually donated funds to develop a dredging plan, obtain the permits, and test the sediment. We will continue to support this project through the provision of access to waterways for dredging purposes, participation in discussions with the towns, state, and federal officials on the development of a vibrant, viable shoreline, as well as communication with homeowners to keep them informed and involved with the project.

We appreciate your support of this very worthwhile and critical project.

Sincerely,

Thomas Alessi,
Vice President OIRA

United States Senate

January 29, 2014

The Honorable Sally Jewell
Secretary of the Interior
1849 C Street, NW
Washington, DC 20240

Mr. Don McGrath
Chairman of the Board
National Fish and Wildlife Foundation
1133 Fifteenth Street, NW, Suite 1100
Washington, DC 20005

Dear Secretary Jewell and Mr. McGrath:

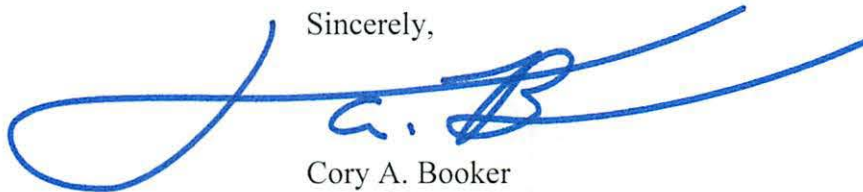
I am writing to express my support for the application from the towns of Little Egg Harbor and Tuckerton for the 2014 Hurricane Sandy Coastal Resiliency Grant. I hope you will give full and fair consideration to this proposal.

Little Egg Harbor and Tuckerton were among the New Jersey bayfront communities that were severely damaged during Hurricane Sandy in October 2012. Today, rising sea levels and eroding marsh continue to pose a threat to the viability of these towns.

This project will increase the economic resiliency of Little Egg Harbor and Tuckerton by helping to maintain important bayshore activities, including boating, fishing, and oyster farming. It will also increase physical resiliency by strengthening the marshland buffer that protects crucial infrastructure. Finally, it will add to and improve a critical nearby habitat that is home to a wide variety of native wildlife species.

I appreciate your review of this application. If you have any questions or comments, please feel free to contact me or my staff at (973) 639-8700.

Sincerely,



Cory A. Booker
United States Senator



NFWF

Statement of Litigation

Instructions: Save this document on your computer and complete. The final narrative should not exceed two (2) pages; do not delete the text provided below. Once complete, upload this document into the on-line application as instructed.

Litigation: In the space provided below, state any litigation (including bankruptcies) involving your organization and either a federal, state, or local government agency as parties. This includes anticipated litigation, pending litigation, or litigation completed within the past twelve months. Federal, state, and local government applicants are not required to complete this section. If your organization is not involved in any litigation, please state below.

The Township of Little Egg harbor is the applicant, an established Local Municipal government, and therefore exempt from filing this statement.

Michael J. Fromosky
Asst. Township Administrator

A handwritten signature in blue ink, appearing to read "M. Fromosky", is written over the typed name and title.

Board of Trustees, Directors, or equivalent:

Little Egg Harbor Township

Mayor	Arthur R. Midgley	midgley@leht.com
Deputy Mayor	Eugene (Gene) Kobryn	kobryn@leht.com
Committeeman	Ray Gormley	gormley@leht.com
Committeeman	John Kehm, Jr.	kehm@leht.com
Committeeman	Edward Nuttall	nuttall@leht.com

Borough of Tuckerton

Mayor	Hon. George "Buck" Evans	Mayor@TuckertonBorough.com
Council President	James Edwards	JamesEdwards@TuckertonBorough.com
Councilman	John Schwartz	JohnSchwartz@TuckertonBorough.com
Councilwoman	Susan R. Marshall	SusanMarshall@TuckertonBorough.com
Councilman	Sam Colangelo	Sam.ColangeloTB@comcast.net
Councilwoman	Doris Mathisen	DorisMathisen@TuckertonBorough.com
Councilman	Ryan Short	RyanShort@TuckertonBorough.com