

Keyport Environmental Commission (KEC) Minutes for February 26, 2024 – Conducted in Keyport's Borough Hall

Call to Order

Meeting called to order at 8:07pm by **Chair Joe Sheridan**.

Sunshine Law was Read

Salute to the Flag

Roll Call

	NAME	STATUS	TERM EXPIRES	PRESENT	ABSENT
1	JOE SHERIDAN (JS)	COMMISSIONER, CHAIR/SECRETARY	12/31/2026	X	
2	MIKE PALMISANO (MP)	COMMISSIONER, VICE CHAIR	12/31/2024	X	
3	ROY JIMENEZ, Sr. (RJ)	COMMISSIONER	12/31/2024	X	
4	DON PACHECO (DP)	COMMISSIONER	12/31/2025	X	
5	LYNNE KOSOBUCKI (LK)	COMMISSIONER, 2-YEAR ALTERNATE #1	12/31/2025	X	
6	MATT TEVIS (MT)	COMMISSIONER	12/31/2025		X
7	MIKE LANE (ML)	COMMISSIONER	12/31/2025	X	
8	DOUG WEIDER (DW)	COMMISSIONER	12/31/2026		X
9	HEATHER BRADY (HB)	KEYPORT BOROUGHS COUNCIL LIAISON	12/31/2023	X	
10	DR. JUN CHENG	KEAN UNIVERSITY ASSOC. PROFESSOR	-	X	
11	KATHLEEN BULL DE LOS REYES	RESIDENT	-	X	
12	ALONDRA VALERIO	KEAN UNIVERSITY STUDENT	-	X	
13	MATTHEW WOLFE	KEAN UNIVERSITY STUDENT- TEAM LEADER	-	X	
14	GEORGE WALLING	RESIDENT	-	X	
15	DR. JUN CHENG	KEAN UNIVERSITY ASSOC. PROFESSOR	-	X	

Corrections to January 22, 2024 KEC Minutes:

None

Review/Approval of Meeting Minutes:

Minutes of the January 22nd, 2024, meeting; Motion to Accept by Lynne Kosobucki (LK); Mike Lane (ML) 2nd; No comments/Edits; Minutes Unanimously Approved.

Action Item Recap

1. **ALL:** To elect a new Keyport Environmental Commission Secretary. **TBD**
2. **JS:** To ask B.A. Humphrey for a copy of the monthly Keyport Engineer's Report to Mayor and Council. **Monthly request is made.**

Keyport Borough Council (KBC) Item Updates:

The Agenda offered the following KBC items for KEC discussion:

- 1. Mariner's Village**
- 2. Deputy Ventures (formerly Mystic at Keyport (44 Beers Street)**
- 3. 31 W. Front Street (restaurant and Residential Units)**
- 4. Aeromarine Issues**
- 5. Beach Park Outfall Pipe/Flooding Issues**
- 6. Port 149 Bulkhead Progress**

(JS):

- Borough of Keyport reports on any KBC Updates with Environmental Commission impacts.
- Discussed February 8, 2024 letter received from Atlantic Shores Offshore wind joint venture 50/50 with EDF-RE Offshore Development proposing to evaluate four locations in Raritan Bay off the coast of Keyport, New Jersey, to include sediment boring which will have a maximum 6-inch radius and a cone penetrometer test (CPT) which will have a maximum 2-inch radius to a target depth of 19.7 feet (see attached letter).

The CPT test method consists of pushing an instrumented cone into the ground at a controlled 2 cm/sec push rate. Common measurements being collected are cone tip pressure, sleeve friction, pore pressure and tilt angle. Additional sensors can be added like seismic, or other geo-environmental logging tools.

Definition courtesy of Google Search, March 18, 2024; 12:54pm

- **ACTION** on JS to ask for Borough of Keyport for a copy of the Application to discuss offshore bore samples in depth.

(ML)

- Commissioners should endeavor to locate information from when Anberic was discussing preparing Keyport for a power cable several years ago.

(MP)

From Clean Ocean Action, companies installing wind farms off the coast of New Jersey are experiencing problems financing their projects.

(ML)

- Wind farms down off Cape May are also experiencing financial obstacles.

Mike Lane's Observations on KBC Items:

- Please see attached document, entitled 'Mike Lane's Input for KEC Mtg. 2/26/24', written from his viewpoint, including group discussion on 171 – 174 Osborn Street Site – an Impound/Junkyard in a Neighborhood Commercial-zoned District.

New Business:

(DP)

- Discussed Mariner's Village tax situation.
- The County was working on the Henry Hudson Trail-they know the flooding issues are bad from Manchester Street to Fulton Street.

(MP)

- The Borough Engineer normally discusses the environmental issues with projects during Planning Board meetings.
- Discussed origin of where soil came from on old Wade Pedersen's Marina.

(RJ)

- Discussed Check Electric Property.

(LK)

- Spoke about the capstone project with Kean, about the meeting with the 8-Student Class on January 9, 2024. They met at the Cedar Street Park Dune Site to get a better sense of the area.

(Matt Wolfe, Kean Student Team Leader)

- Project is in its preliminary stages. See attached Proposal. The request by Keyport is feasible. Their Team is currently looking into the guidelines/laws that govern such projects. Reference sites have been identified (Bradley Beach, Sandy Hook) that are ideal to help in determining native plants.

(MP)

- The Cedar Street Park Dune site is beautiful. There is a scheduled clean-up of the area in April.
- Spoke of the Kean Team's Deliverable Plan.

(Dr. Cheng):

- The Kean Capstone Project is good news for Keyport.
- He would like to add a natural tracer element to the sand in Union Beach to determine if it is migrating to Keyport. He will discuss idea with Union Beach. The Keyport beach is growing narrower. Water quality is also being checked with results eventually available. See attached Summary.

(MP)

- The Green Team is advertising a presentation by Save Coastal Wildlife Director Jenna Reynolds on Horseshoe Crabs starting on Wednesday, February 28th, at 6:30pm at Keyport Borough Hall. Future presentations will be by Clean Ocean Action, Keyport Historical Society, Keyport Environmental Commission's Living Shoreline Project...but people are needed to come and listen!
- The Green Team is trying to maintain Keyport's Bronze Sustainable NJ standing.

(LK)

- Spoke of the Marine Science Camp-possibly the KEC can talk to them about the Living Shoreline Project.

(HB)

- **ACTION** to get in touch with the Marine Science Camp to discuss the possibility of the KEC talking to them about the Living Shoreline Project.

(LK)

- There is possible funding from Keyport's Neighborhood Preservation Program (NPP) for the Keyport Living Shoreline Project, but it could be outside the NPP boundary.

(RJ)

- Spoke about the Nissan letter that went out from the Planning Board regarding a paved parking lot.

(ML)

- Discussed methods of how businesses handle getting projects completed through town planning and zoning boards.
- Would like to see a posted Top Half Dozen Keyport Environmental Commission Projects/Concerns.

Open to the Public

9:40pm: JS opened the meeting to the Public.

Kathleen Bull De Los Reyes

- Asked about the Keyport Lead Pipe Grant Status

(HB)

- **ACTION** to research Keyport's Lead Pipe Grant Status.

Close to the Public

9:44pm: JS closed the meeting to the Public.

ACTION ITEMS LIST

1. **JS:** Continue to work with the BA, Liaison Brady, and Planning Board Secretary Nellis on providing current updates on the Keyport Borough Council Update List and correspondences.
2. **ALL:** To elect a new Keyport Environmental Commission Secretary.
3. **JS:** To ask B.A. Humphrey for a copy of the monthly Keyport Engineer's Report to Mayor and Council.
4. **HB:** To contact the Marine Science Camp to see if they would invite the Keyport Environmental Commission to come talk about its Living Shoreline Project.
5. **HB:** To research Keyport's Lead Pipe Grant Status.

ATTACHED ITEMS LIST

1. Mike Lane's Input for the Environmental Commission Meeting-January 22, 2024.
2. Atlantic Shores offshore wind February 8, 2024 letter regarding sediment boring.
3. Kean University's Proposal for Upper Dune/Living Shoreline Project at Cedar Street Park.
4. Dr. Jun Cheng's Shore Project Summary e-mail dated 2/29/2024; 2:15pm.

Meeting Adjourned 9:44pm: Motion to Adjourn by **DP; LK 2nd**; Unanimous Approval.

The next meeting will be held on **Monday, March 26th, 2024, at 8:00pm, at Keyport Borough Hall Council Chamber.**

Minutes submitted by Joe Sheridan.

Input for KEC Mtg. 2/26/24

Mariner's Village - The developer's June 2023 status report to the KUPB indicates that 1.) the project is not economically feasible without a PILOT, 2.) new lots (15.01 and 16.01) were filed with the County Clerk. **The Mayor and Borough Council held another closed Executive session with Developer's Professionals prior to the 2/20/24 KBC meeting. A slide projector in the Council chamber was apparently used to promote this project along with its PILOT price tag. Following this Executive session, Mayor Araneo announced that there would be a future Public session to review PILOT benefits and the scope of the project.**

Regarding new lots 15.01 and 16.01, a check of the County Tax Board_MODIV data shows the 12 pre-existing lots listed in the KUPB Resolution for this project have been deleted. The latest input as of 2/20/24 is that these 2 new multi-million dollar lots (15.01 and 16.01) are **STILL** listed on the tax rolls with **ZERO** taxes.

Browns Point Marina - According to the latest status report from the applicant, CAFRA is requiring a refiling. A Floodplain Development Permit is required prior to new construction. An additional KUPB hearing is required for boat rack expansions, fueling tanks, and additional docks. Plans show fuel tanks unanchored and on the ground in SFHA and the Borough wellhead area. A previous application for fueling facilities was withdrawn from KUPB consideration.

When the KUPB approved their pier expansion a couple of years ago, the KUPB required provision of a standpipe for fire suppression. The marina has expanded the pier without a standpipe. **Tony Vecchio took them to Court. Marina developer argued successfully that the standpipe was not required until the site plan is fully implemented. In the meantime, the pier is fully utilized with boats and some overnight occupants of boats, a safety issues.**

Mariner's Village, Browns Point Marina Contamination - Roger Miller's 2/4/22 status report identifies the contaminated dirt pile at the end of Washington St as "historic fill" to be used under the 120-unit apartment lot by the EOY 2022. This action has not occurred. **KEC letter regarding contaminated fill at the north end of Washington Street is still not addressed by Borough officials.**

Mystic at Keyport/Deputy Ventures - A Floodplain Development Permit is required prior to construction. The issued CAFRA permit requires these homes be built on piles with breakaway walls, etc. Updated plans need to be generated and certified by a qualified professional. There is a requirement that deeds advise buyers of the flood risk. Nothing new on KUPB engineers' schedule. **The 1/13/24 high tide put the site under a foot plus of water, flooding the street and garage areas of dwellings on east side of Beers.**

31 West Front St - Demo permits were issued in July and construction of the **new building is underway**. Per 7/28/23 Notice, a Flood Hazard Area Individual Permit application was filed with NJDEP. A condition of KUPB approval was delineation of flood zone boundaries (VE, LIMWA, and AE) in this SFHA. A Floodplain Development Permit is required prior to construction per the new 2022 FDPO. Also need a compliance report from a certified engineer/architect. **29 West Front structure floor stability impacted by this project, generating a temporary stop work order.**

Aeromarine Landfill - A key environmental issue is on-going sampling in the test wells on the site and have the reports been provided to the Borough. Still no update on any efforts to eliminate the continuing erosion that is silting in the adjacent bay and creek. This erosion is also exposing landfill trash. The low-low tide on 1/13/24 exposed more than 120 plus feet of the Harbor floor in front of the bulkheads, exposing tires, logs, and trash.

Around 2021 the Borough initiated a lawsuit to end the pollution of Keyport Harbor due to toxins leaking from the landfill site at Aeromarine. Council review of Aeromarine lawsuit was a closed session item at the 7/19/22 KBC meeting. At the 1/16/24 KBC meeting, Mayor Araneo stated the status of the clean-up lawsuit is unknown. **Since then, documentation has clarified that the lawsuit has been terminated by the KBC.**

Flooding Due to Filled Drainage Ditch - Filling in of the wetland area and its floodway between Beers and Main has contributed to flooding on Main at Monroe, Broad by the schools, and Atlantic by the ballfield (flooding basement areas in multifamily buildings across from the ballfield).

Library Flooding - A sump pump failure resulted in flooding of the basement. Mold was found during clean up. In the past, there were reports of flooding and icing at the outside entrance to the basement. Action was taken to address this issue.

Beach Park Outfall Pipe - The Beach Park 30-inch Outfall Pipe problem with the significantly restricted outfall pipe capacity due to the duckbill on the end of the pipe remains unresolved. Without a pump to push the water through the duckbill flooding continues. Note that multiple pump stations will be part of the ACE Union Beach flood mitigation project,

validating the need for a Keyport Pump Station. A Beach Park pump station fix was not a 2023 budget item, which will lead to more Division and E Front flooding.

Beach Park Upgrades - NPP has recently paved a walkway from First Street to the pavilion and from the playground area to the pavilion. NPP plans to replace the gazebo with a new gazebo with a concrete floor. They are studying options for new playground equipment.

Port 149 Bulkhead – Project requires removal of multiple transformers by JCP&L before additional work on the last 50 feet of bulkhead by the bridge can resume. The new bulkhead structure is not presently built to permitted specs with: 1.) a 10 foot wide splash pad and ground elevated to the top of bulkhead, 2.) ~5 feet of vinyl sheeting patched on top of old steel sheeting, and 3.) old piles still in place last ~50 feet. **West Front Street flooded in the area of fishery during the 1/13/24 high tide.**

Keyport Towers and Marina – This is not a listed Case in the KUPB file as of this report date. Reportedly, updated plans have been given to the Council Redevelopment Committee with one less story and some minor front façade changes. Notice for an environmental study and remediation activities was posted, 8/3/22. This project, in a SFHA, will require a Floodplain Development Permit. **Suggest that Borough Officials request all the LSRP reports generated by this investigation. Having these reports for Aeromarine has been very beneficial for the Borough. Large volume of soil now located next to W Front Street fence.**

25 E Front – A Floodplain Development Permit is required prior to start of construction. The architectural design needs to comply with Local Design Flood Elevation of BFE +3. The KUPB has approved a 5-story 50-unit apartment mixed-use structure with a 16-parking space deficiency and a sidewalk level commercial area along East Front Street. **KFD chief has reviewed plans for the landscaping along their abutting property line.**

105 Hwy 35 - On 6/24/23 KUPB approved a one-story Commercial building at this site, which has been approved for a Cannabis retail operation by the KBC. A Cannabis retail establishment at this site still requires an additional KUPB review of compliance with Cannabis security standards. **To date, there is no Notice for another KUPB hearing.**

Firemen's Park Bulkhead – Borough Bond Ordinance was approved for \$4M to fund elevation of the bulkhead and parking lot. This elevation increase will only deal with tidal flooding of the parking lot, not a 100-year storm. There is no fix for American Legion Drive tidal flooding in the area by the Post Office lower parking lot.

333 First Street – Units are for sale. Flood warning signs are posted in the driveway for these units. **Master Deed is required to delineate flood level and risk/frequency. No requests for 5-year tax abatement to date. Walnut Street, site driveway, and some parking areas flooded during 1/13/24 high tide. The site fails to provide the required 300 sq. ft. of open space/unit, a total of 7,200 sq. ft. for the development.**

Raritan Cove – Some units have been sold and multiple units have received a 5-year tax abatement. Construction of the fourth building is underway. For new bottom floors in the SFHA, elevation needs to be recorded and checked against BFE+3. The retaining wall installed parallel to the creek will not serve as a CHHA bulkhead due to its footing height above the creek.

East Third St Flooding – The drainage-ditch/floodway along the Henry Hudson Trail (HHT), between Atlantic and Manchester, flows to the pipe under the HHT just east of Manchester Street instead of continuing down the floodway to Chingarora Creek. This 20-inch pipe dumps water into the street below the HHT, resulting in flooding of homes on East Third and East Fifth Streets. Hudson Pointe is now approved to discharge their stormwater into the pit abutting this pipe under the HHT, which will further intensify the flooding issue on East Third and East Fifth. This stormwater should flow down the HHT drainage-ditch past Fulton to Chingarora Creek. **County and Borough officials are discussing action to clear sections of the HHT drainage-ditch/floodway.**



Atlantic Shores Offshore Wind, LLC
Dock 72
Brooklyn, NY 11205
www.atlanticshoreswind.com

February 8, 2024

Joseph Sheridan
Environmental Commission Chairman
70 West Front Street
Keyport, NJ 07735

**Subject: New Jersey Department of Environmental Protection Waterfront Development Individual Permit
Government Official Notification – Atlantic Shores Raritan Bay Geotechnical Investigation Project**

Dear Mr. Sheridan:

This letter is to provide you with legal notification that an application for a Waterfront Development Individual Permit will be submitted to the New Jersey Department of Environmental Protection, Division of Land Use Regulation (the Department) for the development shown on the enclosed plan(s). A brief description of the proposed project follows:

Atlantic Shores Offshore Wind, LLC ("Atlantic Shores"), a 50/50 joint venture (JV) between EDF-RE Offshore Development, LLC (an indirect wholly owned subsidiary of EDF Renewables, Inc.; referred to herein as "EDF Offshore") and Shell New Energies US LLC ("Shell New Energies"), is proposing to evaluate the substrate at four sampling locations in Raritan Bay off the coast of Keyport, New Jersey. All four locations will include a sediment boring which will have a maximum 6-inch radius and a cone penetrometer test (CPT) which will have a maximum 2-inch radius. Both the sediment borings and CPT soundings will be advanced to a target depth of 19.7 feet. Approximately 24 samples will be obtained in total from the four sampling locations. The direct impact area will be limited to the radius and depth of the borings and CPT soundings.

The complete permit application package can be reviewed at either the municipal clerk's office in the municipality in which the site subject to the application is located, or by appointment at the Department's Trenton Office. The Department welcomes comments and any information that you may provide concerning the proposed development and site.

Please submit your written comments within 15 calendar days of receiving this letter to:

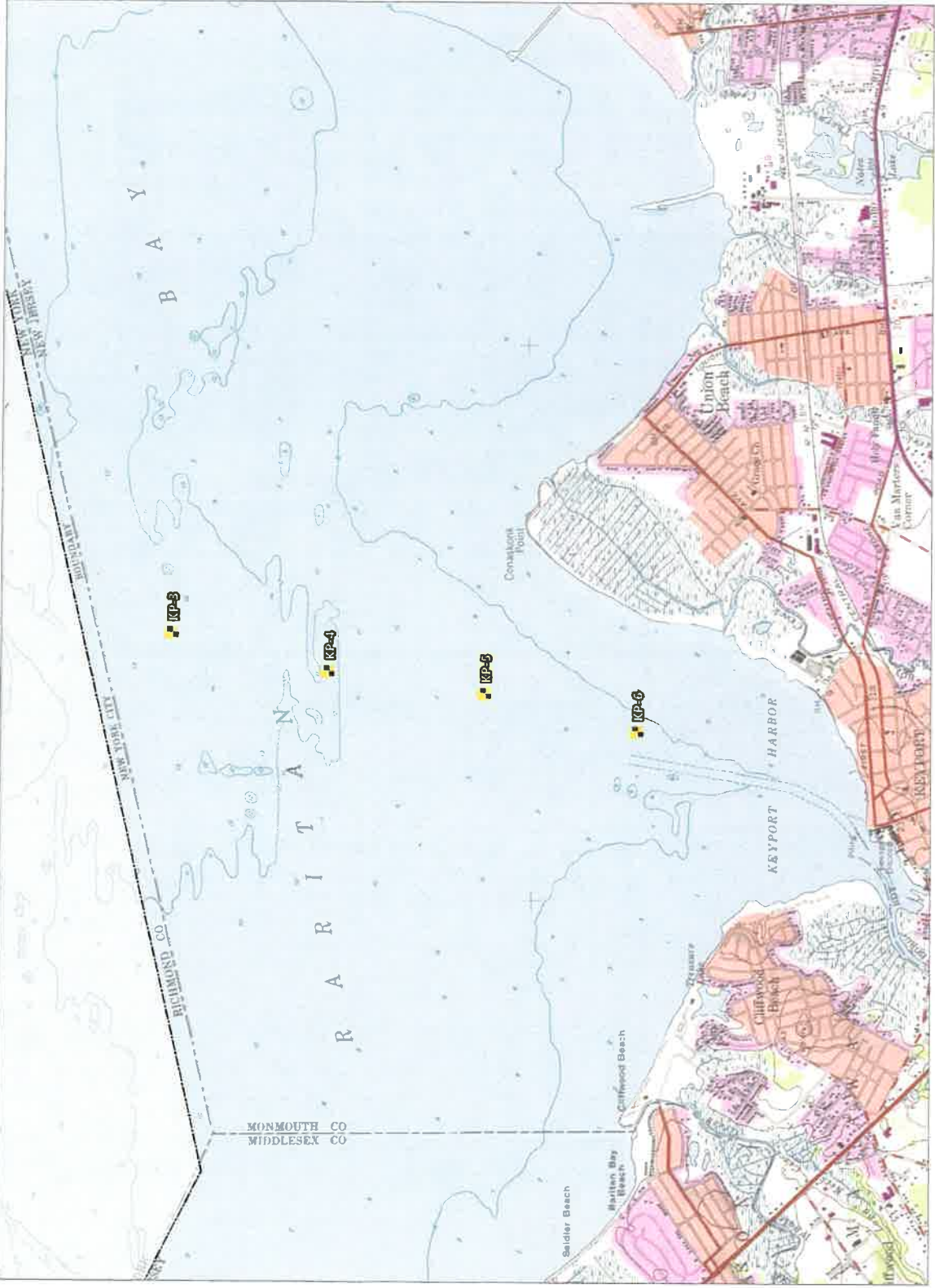
New Jersey Department of Environmental Protection
Division of Land Use Regulation
P.O. Box 420, Code 501-02A
Trenton, New Jersey 08625

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Daniels".

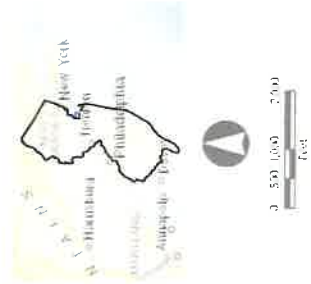
Jennifer Daniels, Development Director
Atlantic Shores Offshore Wind, LLC

USGS Project Location Map



2024 Geotechnical
Survey Area – Raritan
Bay Geotechnical
Investigation Area
Raritan Bay, New Jersey State Waters
Waterfront Development Individual
Permit

Geotechnical Sampling Location
State Waters Boundary



Prepared January 6, 2024
Banner: Esri/ArcGIS Online USA Topo Maps™ map service
ATLANTIC SHORES
offshore wind

EDR



ATTACHMENT 3

PROPOSAL FOR UPPER DUNE/LIVING SHORELINE PROJECT AT CEDAR STREET PARK

Cedar Street Park, Cedar St, Keyport, NJ 07735

CONTACT:

Project Manager: Matthew Wolfe, [REDACTED]

Assistant Project Manager/Technical Editor: Maddison Gonzales, [REDACTED]

Permit and Licensing Lead: Gabby Reese, [REDACTED]

Species Identification Team Leads: Claudia Baydar, [REDACTED], Alondra Valerio, [REDACTED]

Aquatic Team Leads: Tolaney Anderson, [REDACTED], Carlos Martinez, [REDACTED]

Global Information Systems Specialist: Julianna Cofinas, [REDACTED]

Dear Members of the Keyport Environmental Commission,

We thank you for the opportunity to work on the Cedar Street Park Living Shoreline Project. Our belief is that such initiatives are critical in enhancing the ecological resilience of the local environment and offer various benefits to the community. We are committed to preserving the environment and supporting the development and maintenance of living shorelines at Cedar Street Park. We recognize that shorelines play a crucial role in safeguarding coastal areas, preventing erosion, and promoting biodiversity. By creating habitats for various species, living shorelines also protect against storm flow and contribute to the overall health of our ecosystem. To achieve our goals, we will do the following:

- Conduct a biodiversity assessment of Cedar Street Park, identifying native and non-native plants (including invasive species).
- Research Department of Environmental Protection (DEP) and Environmental Protection Agency (EPA) permits, requirements, exemptions, and application processes in regards to dune creation, beach extension, etc.



- Use Global Information Systems to map the locations of native and invasive plants, as well as potential trail and educational signage locations
- Research coastal replanting techniques, and determine compatible plant species with a focus on species that provide edible fruit.
- Conduct research on dune formation methods, emphasizing strategies for minimizing and preventing the formation of swales in the future.
- Research grant sources for labor, rib mussels/oyster spat, and purchase of plant materials, and make detailed comparisons of plant vendors.
- Research feasibility of marine plant introduction.
- Create an itemized budget for plant material, native species replanting, invasive species removal, implementation of signage and trail, bivalve implementation, marine plant implementation
- Research the frequency of maintenance needed to sustain the project.
- Help schedule and conduct future volunteer days.

Our team is dedicated to working closely with the Keyport Environmental Commission to realize the goals of this project. We believe that by combining our knowledge and resources, we can create a thriving living shoreline that benefits both the environment and the community. We look forward to discussing these ideas further and collaborating on the successful implementation of the Cedar Street Park living shoreline project. With the completion of this plan, we hope to provide the Keyport Environmental Commission with best practices, clear visuals, and relevant data to help with the continuation of the Cedar Street Park project.

BACKGROUND:

The increase in storm intensities over the years have destroyed shorelines giving storms more power to cause greater damage. Dunes are effective in protecting shorelines; they act as a buffer between the crashing waves and inland developments and communities. They are also helpful with reducing wind erosion as the sand that is picked up from the wind gets caught in the grasses later being used to refill eroded areas. Over the last 6+ years the Keyport Environmental Commission has taken notice of the increase in damages and took action. The first step taken



was cleaning up the area. Volunteers and non-profit organizations helped with clearing up litter and purging the area of Asiatic sedge that was replaced with native dune grass. The first stage of their efforts to rebuild showed to be successful. Because of this our team wants to continue to enhance and expand on this progress. Although the first stage was a success it created a swale, or a marshy depression, that was later filled in with recycled Christmas trees donated from the community. One task our team will be working on to continue improving the Cedar Street Park living shoreline will be identifying plant species in the area and replacing the invasive species with native ones. Regulations will also be taken into account throughout the duration of this project; therefore necessary permits for Keyport will be discussed before taking further action. We are hoping that the success of this project will encourage the community to utilize this area again.

ROLES:

Project Manager: Matthew Wolfe

Email: [REDACTED]

Phone: [REDACTED]

As Project Manager, Matthew will be the bridge for communication between the team and the Keyport Environmental Commission (KEC). He will be fully involved with the onsite and remote tasks (specifically signage and conducting volunteer efforts) to ensure that work is completed with consistency and transparency. In addition to this, he will be responsible for the organization and punctuality of the team, providing updates to the KEC in alignment with monthly meeting dates and milestone completions. If there are any questions or concerns please contact Matthew using the provided information.

Assistant Project Manager/Technical Editor: Maddison Gonzales

Email: [REDACTED]

As Assistant Project Manager, Maddison will primarily act as a second point of contact, covering any gaps in communication. She will also be involved in all onsite and remote tasks,



with a special focus on project budget and licensing. In addition, she will be available to assist with any aspect of the project that is found to be particularly intensive. If there are any questions or concerns, and/or issues contacting the project manager please contact Maddison using the provided information.

Permit and Licensing Lead: Gabby Reese

Email: [REDACTED]

Gabby will be responsible for researching any applicable DEP and EPA regulations. She will work to ensure that the plan develops in accordance with established guidelines, in order to keep the project fully achievable. She will read through and select any applicable regulations, and communicate the effect it will have on our approach. Along with this, Gabby will be assisting the Species Identification Team in their efforts to document species composition. Please reach out to Gabby with any questions specifically regarding government regulations and licensing.

Species Identification Team Leads: Claudia Baydar, Alondra Valerio

Email: [REDACTED]

Email: [REDACTED]

Claudia and Alondra will be the primary species identifiers. The Species Identification Team will work in the order of these steps:

1. Identify: confirm the species of each plant in Cedar Street Park.
2. Locate: log the coordinates of individual plants or sections of plants where applicable.
3. Distinguish: divide the species into native, non-native and invasive categories

From there they will work closely with the GIS specialist to create a map of invasive and native species. Using this information, the team will develop an invasive plant removal plan, starting from the least invasive areas, to the most invasive. Also, Claudia and Alondra will consider the structural contribution of the invasive plants in preventing dune erosion while developing the plan. Please reach out to Claudia or Alondra with any questions regarding any of the above.



Aquatic Team Leads: Tolaney Anderson, Carlos Martinez

Email: [REDACTED]

Email: [REDACTED]

As Aquatic Team Leads, Tolaney and Carlos are responsible for researching the implementation of eelgrass, and ribbed mussels/oyster castles for Cedar Street Park. Working with the Permit and Licensing Team, they will determine the legality and limitations in regards to adding ribbed mussels/oyster castles. They will then compare the ribbed mussels and oysters based on multiple factors:

1. Regulation: any difference in regulations between ribbed mussels and oysters will be noted.
2. Ease of Introduction: differences in species implementation at the site will be noted, including preferred habitat, storm resistance, etc.
3. Water Filtration Capability: species with greater water filtration capability will be noted.
4. Cost of Implementation

Please direct any questions specifically regarding eelgrass, ribbed mussel, or oyster research to either Tolaney or Carlos.

Global Information Systems Specialist: Julianna Cofinas

Email: [REDACTED]

Julianna is the team's Global Information Systems (GIS) Specialist. GIS is a tool that will be used to effectively display specific points of interest within the park by their exact location. This will be helpful after the identification of invasive species in the area to visualize the extent of what has to be removed. Mapping the native species will highlight the plants that should be kept in the park due to their importance of maintaining the natural biota of the area. Following the KEC's desire to implement a trail that goes through the wooded area and create a more welcoming environment for visitors and their families to visit, Julianna will again utilize GIS. A map will be created to outline the placement of this trail where it will not negatively affect the



native plant species while being inviting to pedestrians. In addition to this, Julianna has provided a rough timeline synchronous with KEC meeting dates. If there are any questions or concerns regarding GIS mapping, please contact Julianna using the given information.

TIMELINE (Tentative):

February	Focus Area	Task
Matthew	Volunteer Organization	Schedule volunteer day and confirm with client
Maddison	Permits and Licensing	Determine required permits for living shorelines
Claudia	Species Identification	ID and mark coordinates
Aly	Species Identification	ID and mark coordinates
Tolaney	Dune Research	Research dune construction, specifically preventing/fixing the formation of a swale
Carlos	Aquatics Research	Research potential of eelgrass implementation at the site
Julianna	Educational Signage	Determine appropriate content for educational signs
Gabby	Permits and Licensing	Determine required permits for living shorelines
March	Focus Area	Task
Matthew	Maintenance	Research frequency of maintenance needed for the project to be sustainable
Maddison	Budgeting	Create pricing estimate for removing plants, purchase new plants, and educational signs
Claudia	Species Removal	Research removal techniques and weigh integrity of invasive to structure of the dune
Aly	Trail and Signage	Determine best location for trail/signage
Tolaney	Aquatics Research	Research potential of oyster castles/ribbed mussels being implemented
Carlos	Grant Research	Research grant sources for work labor, ribbed mussels, oysters, etc.
Julianna	GIS Mapping	Create a map of plant locations, and a map of the trail location
Gabby	Citizen Science	Research ways for citizens to contribute to the dune project
April	Focus Area	Task
Matthew	Volunteer Organization	Conduct volunteer day
All	Finalization of plan with the Environmental Commission of Keyport	Project Presentation



BUDGET:

In an effort to keep costs of this project low, volunteer events will be planned to complete the manual labor needed throughout the restoration process. The cost of potential permits this project may require will also be included in the total cost.

VOLUNTEER DAY (tentative):

The Team will conduct a volunteer day at Cedar Street Park in early April. This will consist of a cleanup of both the shore and the wooded area of the park. Kean University will be able to provide a number of gloves and trash grabbers. Other required supplies include water, bags, and snacks (granola bars, fruit). We will search for potential community donors who would be willing to help. The last task is waste transportation: we will meet with a watershed ambassador to arrange a pickup of the bagged waste.

Once more, our gratitude extends to the Keyport Environmental Commission for granting us the privilege to engage in this remarkable project. We eagerly anticipate providing you with a thorough and feasible project plan, and witnessing its successful implementation. We are ecstatic to pursue such an honorable role corresponding with this meaningful project to be dedicated towards. Eager to bring our passion for environmental conservation to the table as we unfold and accomplish these near future tasks. We appreciate your time, dedication, and steadfast commitment to environmental stewardship. We are more than grateful to collaborate and mark our positive impact soon to come. Our Team is at your disposal to provide any additional information along with questions and answers you may require/have and look forward to any opportunity to clarify our approach or expand upon goals.

Joe Sheridan

Attachment 4

From: Jun Cheng <jcheng@kean.edu>
Sent: Thursday, February 29, 2024 1:47 PM
To: Joe Sheridan; Michael Palmisano
Subject: beach study updated.

Hi Joe and Michael,

Good to see you last night! The talk on horseshoe crab was very interesting. Even my five-year-old son was able to listen through the entire talk and get engaged. As long

For a shore summary for the beach survey so far, I would say only minor beach/dune erosion was measured during this winter season. Some sand accretion was measured in nearshore where it was inundated during a high tide. Further experiments need to be implemented to investigate where this sand comes from.

Thanks!

Jun

--

Jun Cheng, Ph.D.
Assistant Professor
Department of Environmental & Sustainability Sciences
Kean University, Union, NJ.
Office: C 315
Office Phone: 908-767-8002