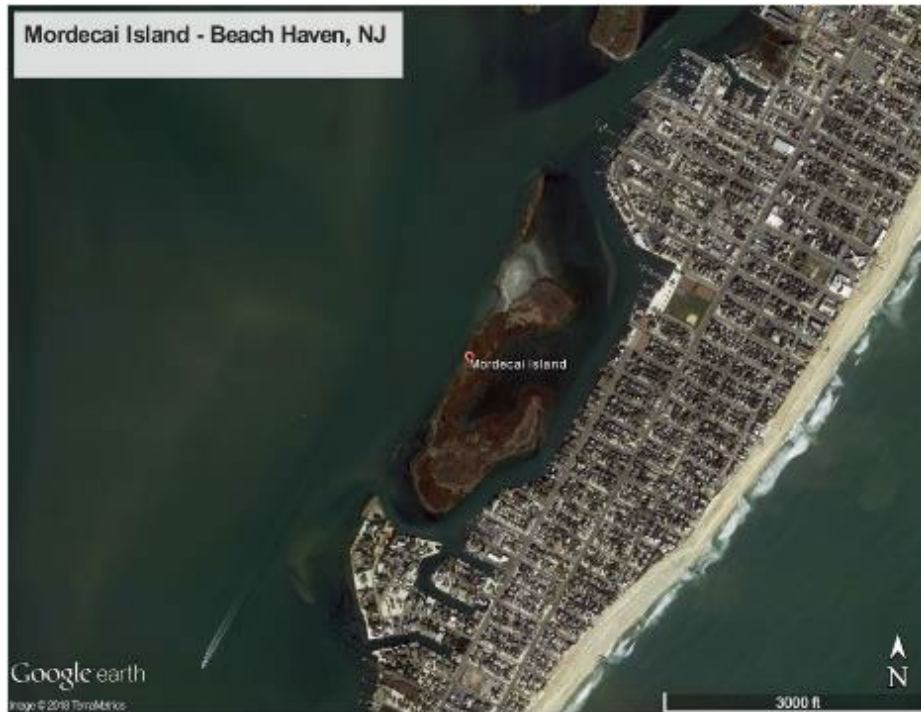


**Mordecai Island
Beach Haven, New Jersey
Ecosystem Restoration
Feasibility Study and Integrated
Environmental Assessment**



**APPENDIX D
PERTINENT CORRESPONDENCE &
DOCUMENTATION**



U.S. Army Corps of
Engineers
Philadelphia District



New Jersey
Department of
Environmental
Protection

- 1) Feasibility Cost Sharing Agreement Letter of Support from New Jersey
Department of Environmental Protection (NJDEP)
- 2) NJDEP Pre-Application Meeting Minutes
- 3) Federal Agency Coordination Meeting Minutes
- 4) NJDEP Goals & Cost Limit Letter



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Engineering and Construction

501 East State Street

Mail Code 501-01A

P. O. Box 420

Trenton, NJ 08625-0420

Tel. 609-292-9236 Fax 609-984-1908

CHRIS CHRISTIE

Governor

BOB MARTIN

Commissioner

KIM GUADAGNO

Lt. Governor

January 20, 2017

Peter R. Blum, Chief
Philadelphia District
U.S. Army Corps of Engineers
Planning Division
Wanamaker Building
100 Penn Square East
Philadelphia, Pennsylvania 19107-3390

Subject: Mordecai Island Coastal Wetlands Restoration Project
Division of Coastal Engineering Project No. 6042
Beach Haven, Ocean County, New Jersey

Dear Mr. Blum:

I am writing this letter in support of the above subject Continuing Authorities Program Environmental Restoration Project. The New Jersey Department of Environmental Protection (NJDEP) supports the project going forward and will serve as the Non-Federal sponsor of the Feasibility Study. To this end, NJDEP has reviewed the draft Feasibility Cost Sharing Agreement (FCSA) for the Mordecai Island Coastal Wetlands Restoration Project under Section 1135 of the Water Resources Development Act of 1986, and can agree to sign the agreement when it is approved by the Corps of Engineers.

NJDEP is financially prepared to cost-share the Non-Federal sponsor study costs and has funds available from the State's Shore Protection fund for this purpose. We look forward to participating with you in the feasibility phase of this project.

Sincerely,

Dave Rosenblatt

Assistant Commissioner

Engineering and Construction

C: Heather Jensen, Planning Division, Philadelphia District, U.S. Army Corps of Engineers
Bill Dixon, Director, Division of Coastal Engineering
Charles MacIntosh, Planning Division, Philadelphia District, U. S. Army Corps of Engineers
Linda Colgan, President, Mordecai Land Trust
Debbie Voelbel, Environmental Specialist 3, Division of Coastal Engineering

Mordecai Island Ecosystem Restoration Study
NJDEP Pre-App Meeting
December 10, 2020

Minutes

1) Attendees

- Terry Fowler – USACE, CENAP
- Beth Brandreth – USACE, CENAP
- Jane Jablonski – USACE, CENAP
- Debbie Voelbel – NJDEP, Division of Coastal Engineering
- Mike Lewis – NJDEP, Division of Coastal Engineering
- Ryan Anderson – NJDEP, Division of Land Resource Protection
- Suzanne Biggins – NJDEP, Division of Land Resource Protection
- Lindsey Davis – NJDEP, Division of Land Resource Protection

2) Recommended Plan Presented at Meeting

- The recommended plan is a rubble mound breakwater along the 1977 Tidelands line, approximately parallel to the west side of Mordecai Island in the nearshore area, north of existing features installed by Mordecai Land Trust.
- The breakwater will extend for 3,000 linear feet and have an average height of 7.6 feet. To account for potential settlement of one foot, the initial construction is estimated to be +3.6 ft. NAVD88 (1 foot of overbuild). A geocomposite will be placed between the bottom of the structure and the existing ground.
- Crest width will be 3 ft. Side slopes will be 2H:1V. The breakwater will be continuous with sill vents to promote intertidal flushing. Sill vents will be approximately 40 ft. long and have a crest elevation at the MLW line. There will be approximately 160 linear feet of breakwater between each sill vent. There will be no sill vents in the vulnerable northern tip of the breakwater.
- Material from a regular cycle of NJIWW dredging will be placed behind the breakwater to promote restoration. It is assumed that breakwater construction will occur one year ahead of fill.
- As part of the TSP, it is also recommended that existing No Wake buoys be moved closer to the NJIWW channel to promote visibility of the buoys and, indirectly, reduced boat wakes. Relocation of the buoys would be at no cost to this project.



3) Main Points from Permitting Discussion

- 2016 most recent update to living shoreline GP.
- NJDEP has 60 days to determine federal consistency and can request a 15 day extension.
- Request for an acceptable use determination can be done with the federal consistency application package.
- The federal consistency application will be for a period through 2080, with material deposition on a 10 year cycle. The dredging is already covered under an existing DEP permit.
- Beth will arrange to present the slides to NMFS (Keith Hansen, Karen Green) and USFWS (Eric Schradling). Lindsey Davis of NJDEP will be invited (Lindsey.Davis@dep.nj.gov). She will invite other relevant NJDEP staff.
- Have an engineering discussion in the environmental assessment confirming that material from selected areas of the NJIWW channel will be appropriate for the project purpose. Discuss location of dredging, sediment type, etc.
- Beth will make sure that the westward extent of the project is proposed to be the extent of the 1977 shoreline, not the tidelands claim line.
- Have text in the environmental assessment that discusses minimization of impacts to special areas (SAVs), as well as habitat tradeoffs (SAV vs marsh habitat).
- Include a description of the fill component at the northern end of the project.
- Appropriate containment methods for fill will be determined at time of placement but EA should discuss some of the methods we might use.
- EA should discuss balance of impacts vs. environmental benefits.

Mordecai Island Ecosystem Restoration Study
Federal Agency Meeting
January 13, 2021

Minutes

Attendees

USACE

- Terry Fowler – *Philadelphia District, Planning Division*
- Beth Brandreth – *Philadelphia District, Planning Division*
- Jane Jablonski – *Philadelphia District, Planning Division*

NJDEP

- Debbie Voelbel – *Division of Coastal Engineering*
- Lindsey Davis – *Division of Land Resource Protection*
- Kelly Davis – *Division of Fish & Wildlife, Office of Environmental Review*
- Scott Stueber – *Division of Fish & Wildlife, Marine Fisheries Administration*
- Christina (Kashi) Davis – *Division of Fish & Wildlife, Endangered Species Program*
- Peter Winkler – *Division of Fish & Wildlife, Bureau of Lands Management*

NMFS

- Keith Hanson – *Habitat Conservation Division, Greater Atlantic Regional Fisheries Office*

USFWS

- Eric Schradang – *New Jersey Field Office*
- Steve Mars – *New Jersey Field Office, Permit Review*
- Danielle McCulloch – *New Jersey Field Office*

Recommended Plan Presented at Meeting

- The recommended plan is a rubble mound breakwater along the 1977 Tidelands line, approximately parallel to the west side of Mordecai Island in the nearshore area, north of existing features installed by Mordecai Land Trust.
- The breakwater will extend for 3,000 linear feet and have an average height of 7.6 feet. To account for potential settlement of one foot, the initial construction is estimated to be +3.6 ft. NAVD88 (1 foot of overbuild). A geocomposite will be placed between the bottom of the structure and the existing ground.
- Crest width will be 3 ft. Side slopes will be 2H:1V. The breakwater will be continuous with sill vents to promote intertidal flushing. Sill vents will be approximately 40 ft. long and have a crest elevation at the MLW line. There will be approximately 160 linear feet of breakwater between each sill vent. There will be no sill vents in the vulnerable northern tip of the breakwater.
- Material from a regular cycle of NJIWW dredging will be placed behind the breakwater to promote restoration. It is assumed that breakwater construction will occur one year ahead of fill. Material will also be placed behind Mordecai Land Trust (MLT) erosion protection/living shoreline structures.
- As part of the TSP, it is also recommended that existing No Wake buoys be moved closer to the NJIWW channel to promote visibility of the buoys and, indirectly, reduced boat wakes. Relocation of the buoys would be at no cost to this project.



Main Points from Discussion – *italicized text in parentheses indicates who initiated a topic*

- *(Keith Hanson)* The breakwater will be made of riprap, with R6 (12-24”) stone. There was concern that the stone may be too small. Beth Brandreth and Terry Fowler will talk with USACE Engineering about the choice of stone. Debbie Voelbel noted that NJDEP Coastal Engineering will have input on stone size used for the breakwater.
- *(Steve Mars)* Red knots and piping plovers, Federally listed species, have been foraging on the recent disposal area on Mordecai Island. This will trigger Federal consultation. Plovers might forage there, but nesting is not expected as it is not optimal habitat for them. A black rail has also been sighted within five miles. Salt marsh sparrow has been seen breeding on the island. Monarch butterflies have also been present. Beth Brandreth noted that, although endangered species were not all shown in the slide presentation, they will be in the Environmental Assessment (EA).
- *(Steve Mars)* There is a lighthouse erosion control project proposed to the north to protect a lighthouse on State land in Ocean Township. Different, greater, wave energy has been used in the design of the project. Why is that? Beth will bring that up with Jim Boyer, USACE project review officer. Debbie Voelbel noted that there was an extensive wave study conducted by USACE, Engineer Research and Development Center for the Mordecai Island study.
- *(Steve Mars)* Performance of the Shooting Island living shoreline project may be informative. Smaller stone was used there.
- *(Steve Mars)* USFWS is concerned about potential use of engineered geoplactic for the geocomposite under the breakwater. There is some evidence of chemicals leaching out of plastics used in similar circumstances. USFWS would rather see a

- more natural approach, such as articulated matting using wire and stone. Scott Stueber also noted a concern about introducing plastics into the marine environment.
- *(Steve Mars)* There will be time of year restrictions for construction.
 - *(Keith Hanson)* There will be conversion of aquatic habitat where breakwater will be. At the northern tip of the island the project could improve conditions for SAV behind it through creation of quiescent area. Beth Brandreth noted that there will need to be updated SAV surveys before construction. Five years of monitoring and adaptive management will help decide where to place additional sand from the next dredging cycle. There will be flexibility about where to place sand and to what elevation. E.g., SAV beds and vulnerable areas can be taken into consideration.
 - *(Multiple)* Per the NJDEP Living Shorelines rule and the comparable Federal Nationwide Permit, this project will not require mitigation, as it is within the 1977 Tidelands line. There needs to be an SOP for the regulatory decision making process about rock sills/breakwaters that provide ecological uplift.
 - *(Danielle McCulloch)* An offset design was considered for the breakwater, but it would need to depend on natural accretion. There is not enough sediment in the system to assume natural accretion. Therefore, a continuous breakwater with sills in it was selected to hold placed fill.
 - *(Kashi Davis)* Kashi is generally supportive of the project and has been working with MLT on their erosion control/living shoreline features. Debbie Voelbel noted that MLT will be co-sponsors with NJDEP in the next phase of the project (Design & Implementation) and have provided input and data for the Feasibility phase.
 - *(Keith Hanson)* During Design & Implementation USACE, NJDEP and MLT can consider whether the southern end of the breakwater can be lower or not connect to land.
 - *(Steve Mars)* Fill behind the proposed breakwater is currently dependent on maintenance dredging of the New Jersey Intracoastal Waterway (NJIWW). A total of approximately 60,000 cy will be needed over time to create 1-1.5' of fill. There is potential to obtain 30,000 cy from a dredging cycle. The next dredging is likely to occur in 2025. Steve Mars is concerned that the project may not realize full benefits for quite some time, due to limited available material in the NJIWW. He recommended reclaiming material from abandoned confined disposal facilities (CDF). Terry Fowler noted that this project will not bear the cost of conducting maintenance dredging in the NJIWW. This project could bear the cost of pumping material from CDFs. That could negatively affect the economics of the project and exceed the non-Federal sponsor's cost limit. Kashi Davis noted that reclaiming CEF material could impact bird colonies. Steve Mars recommended considering whether NJ Department of Transportation (NJDOT) dredged material can supplement fill from the NJIWW. Debbie Voelbel noted that NJDEP and NJDOT are discussing that. Beth Brandreth recommended that Steve Mars make a comment when reviewing the Draft EA. Use of CDFs may become viable in the future; others may have an interest in participating in the dredging effort.
 - *(Debbie Voelbel)* NJDEP, Division of Coastal Engineering, is also interested in the benefit the project will have in terms of protecting condominiums and marinas in Beach Haven. Debbie Voelbel expressed that for this reason it is important to put the breakwater in place as soon as possible.
 - *(Scott Stueber)* Beth Brandreth will send out a copy of the slide presentation to meeting attendees.



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Climate and Flood Resilience

Division of Coastal Engineering

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PHILIP D. MURPHY

Governor

SHEILA Y. OLIVER

Lt. Governor

CATHERINE R. McCABE

Commissioner

September 19, 2019

Ms. Terry Fowler, Project Manager
Planning Division
USACE – Philadelphia District
Wanamaker Building
100 Penn Sq. East,
Philadelphia, PA 19107

Re: Recap of Non-Federal Sponsors' Capabilities and Goals
Mordecai Island Coastal Wetlands Restoration Project
Continuing Authorities Program Section 1135 – Feasibility Study
NJDEP-Division of Coastal Engineering Project No. 6042
Beach Haven, Ocean County, New Jersey

Dear Ms. Fowler:

This letter is in response to our meeting/conference call held on August 8, 2019, to discuss the tentatively selected plan formulation and projected project costs for the above referenced CAP project.

As stated during the meeting, the non-federal sponsors collectively agree on the following goals and preferred path forward:

- The maximum non-federal cost expenditures for this project cannot exceed \$1.7M; the State covering 75% (\$1.275M) and Mordecai Land Trust picking up the remaining 25% (\$425,000).
- The primary focus of the project design should be to first protect the northern tip of the island, and then expand the protection southward along the western edge as funds allow.
- To execute one Project Partnering Agreement between the Army Corps of Engineers and the two non-federal partners, the State of New Jersey DEP-Division of Coastal Engineering and the property owner, Mordecai Land Trust.

We look forward to continuing our conversations on ways to design this project to get the maximum benefit with the least costs, as well as being realistic to maintain. We ask that we have open and frequent discussions as we move forward so we can utilize existing studies and previously collected information while the tentatively selected plan is being optimized.

Please feel free to contact myself or Debbie Voelbel of this office at any time with any questions or updates. Ms. Voelbel can be reached via email at Deborah.Voelbel@dep.nj.gov or by telephone at 732-255-0767. Thank you.

Sincerely,



Bill Dixon

Director

NJDEP-Division of Coastal Engineering

C: Andy Schwaiger, Chief, Engineering Branch
Beth Brandreth, Project Biologist
Brian Bogle, Chief, Project Development Branch
Debbie Voelbel, Project Manager, NJDEP-Division of Coastal Engineering
Mike Lewis, staff engineer, NJDEP-Division of Coastal Engineering
Linda Colgan, President, Mordecai Land Trust
Jim Dugan, Vice President, Mordecai Land Trust

