Raritan Bay and Sandy Hook Bay, Highlands, New Jersey Coastal Storm Risk Management Feasibility Study

Final Feasibility Report and Environmental Assessment

May 2020

Appendix A1:

Essential Fish Habitat

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EFH ASSESSMENT WORKSHEET FOR FEDERAL AGENCIES (modified 3/2016)

PROJECT NAME: Raritan Bay and Sandy Hook Bay Highlands, New Jersey Coastal Storm Risk Management Feasibility Study and Environmental Assessment

DATE: 10/29/2019

PROJECT NO.:

LOCATION (Water body, county, physical address):

Sandy Hook Bay, Monmouth County, Highlands, NJ

PREPARER: Matthew Voisine

Step 1: Use NOAA's EFH Mapper to generate the list of designated EFH for federally-managed species and life stages for the geographic area of interest. Use this list as part of the initial screening process to determine if EFH for those species occurs in the vicinity of the proposed action. The list can be included as an attachment to the worksheet. Make a preliminary determination on the need to conduct an EFH consultation.

1. INITIAL CONSIDERATIONS

EFH Designations	Yes	No
Is the action located in or adjacent to EFH designated for eggs? **List the species:** Winter Flounder, Ocean Pout, Atlantic Cod, Red Hake, Silver Hake, Yellowtail Flounder, Monkfish, Windowpane Flounder, Smoothhound Shark Complex (Atlantic Stock), Scup, Longfin Inshore Squid,	✔	
Is the action located in or adjacent to EFH designated for larvae? **List the species:** Winter Flounder, Atlantic Herring, Atlantic Cod, Red Hake, Silver Hake, Yellowtail Flounder, Monkfish, Windowpane Flounder, Smoothhound Shark Complex (Atlantic Stock), Scup, Atlantic Butterfish, Summer Flounder,	✔	
Is the action located in or adjacent to EFH designated for juveniles? **List the species:** Winter Flounder. Little Skate, Atlantic Herring, Red Hake, Yellowtail Flounder, Windowpane Flounder, Winter Skate, Clearnose Skate, Sandbar Shark, Smoothhound Shark Complex (Atlantic Stock), Sand Tiger Shark, Scup, Longfin Inshore Squid, Bluefish, Atlantic Butterfish, Summer Flounder, Black Sea Bass	✔	

Is the action located in or adjacent to EFH designated for adults or spawning adults? List the species: Winter Flounder, Little Skate, Ocean Pout, Atlantic Herring, Red Hake, Silver Hake, Yellowtail Flounder, Windowpane Flounder, Winter Skate, Clearnose Skate, Sandbar Shark, Skipjack Tuna, Smoothhound Shark Complex (Atlantic Stock), Scup, Longfin Inshore Squid, Bluefish, Atlantic Butterfish, Ocean Quahog, Summer Flounder, Black Sea Bass	✔	

If you answered 'no' to all questions above, then an EFH consultation is not required - go to Section 5.

If you answered 'yes' to any of the above questions, proceed to Section 2 and complete the remainder of the worksheet.

Step 2: In order to assess impacts, it is critical to know the habitat characteristics of the site before the activity is undertaken. Use existing information, to the extent possible, in answering these questions. Identify the sources of the information provided and provide as much description as available. These should not be yes or no answers. Please note that there may be circumstances in which new information must be collected to appropriately characterize the site and assess impacts. Project plans that show the location and extent of sensitive habitats, as well as water depths, the HTL, MHW and MLW should be provided.

2. SITE CHARACTERISTICS

Site Characteristics	Description
Is the site intertidal, sub-tidal, or water column?	The site is intertidal, sub-tidal, and water column.
What are the sediment characteristics?	USACE sediment sampling identified the sediments as zero to two or zero to four feet of pavement and/or manmade fill. Below the manmade fill, a layer of sand ranging from poorly graded sands, sands with silt, to silty sands, exist to a depth of 25 to 30-feet. Within this sand layer, some borings showed thin, non-continuous layers of silt or sands. These sands exhibit widely varying gradations (course to fine) and varying density (very loose to medium dense). Below the sands, a layer of fine grained soils, silts or clays exist to the bottom of the boring
Is there submerged aquatic vegetation (SAV) at or adjacent to project site? If so describe the SAV species and spatial extent.	There is no SAV at or near the project site.
Are there wetlands present on or adjacent to the site? If so, describe the spatial extent and vegetation types.	NWI mapping shows there are approximately 6 acres of marine and estuarine wetlands adjacent to and at the project site. There is minimal or no vegetation within the wetlands. The project line of protection impacts about 3 of the 6 acres. Mapping using NJDEP Geo-Web indicates a 1.1 acre vegetated dune communities wetland, between Valley Street and Cedar Avenue. The project line of protection impacts about half of the freshwater wetland.

Is there shellfish present at or adjacent to the project site? If so, please describe the spatial extent and species present.	Yes there is shellfish near the project site. NJDEP studies have identified that the project site is adjacent to hard clam habitat that was documented in 1983, 2000, and 2014. Reviewing west to southeast, along the shoreline: In 1983, the area was documented as occurrence (low density) and moderate density; In 2000, the area was documented as occurrence, moderate, and high density; In 2014, the area was documented as moderate and occurrence density. When reviewing the maps collectively, the entire project site is adjacent to moderate and/or high density hard clam habitat.
Are there mudflats present at or adjacent to the project site? If so please describe the spatial extent.	There are no mudflats at or near the project area.
Is there rocky or cobble bottom habitat present at or adjacent to the project site? If so, please describe the spatial extent.	There is no rocky or cobble bottom habitat at or near the site.
Is Habitat Area of Particular Concern (HAPC) designated at or near the site? If so for which species, what type habitat type, size, characteristics?	There is no HAPC at or near the site.
What is the typical salinity, depth and water temperature regime/range?	Based on NJDEP Marine Water Monitoring, Station 906A Salinity (ppt): range 30.8 – 12.7, average 24 Temperature (C°): range 26.5 – 3.0, average 13.9
What is the normal frequency of site disturbance, both natural and man-made?	Man-made disturbances are from human beach activities and boating. Typically occurring in the summer months. Natural disturbances are from the daily tidal fluctuations and from coastal storms.
What is the area of proposed impact (work footprint & far afield)?	The project spans a geographic distance of approximately 8,000 linear feet along the coast of Highlands and ties into high ground (+14 ft NAVD88) at each end. Because the project follows the actual perimeter of the shoreline, its total length is 10,737 linear ft. The project includes a detention pond, diversion culverts, and a pump station for interior drainage. Project Feature Dimension T-Type Floodwall 9,362 lf, I-Type Floodwall 992 lf, Road Closure Gate (width) 55 lf, Pump Station 300 cfs, Detention Pond 1.6 acres, Pressurized Pipes 1,600 lf

Step 3: This section is used to describe the anticipated impacts from the proposed action on the physical/chemical/biological environment at the project site and areas adjacent to the site that may be affected.

3. DESCRIPTION OF IMPACTS

Impacts	Y	N	Description
Nature and duration of activity(s). Clearly describe the activities proposed and the duration of any disturbances.			The project spans a geographic distance of approximately 8,000 linear feet along the coast of Highlands and ties into high ground (+14 ft NAVD88) at each end. Because the project follows the actual perimeter of the shoreline, its total length is 10,737 linear ft. The project includes a detention pond, diversion culverts, and a pump station for interior drainage. Project Feature Dimension T-Type Floodwall 9,362 lf, I-Type Floodwall 992 lf, Road Closure Gate (width) 55 lf, Pump Station 300 cfs, Detention Pond 1.6 acres, Pressurized Pipes 1,600 lf
Will the benthic community be disturbed? If no, why not? If yes, describe in detail how the benthos will be impacted.	✔		The implementation of the proposed project is expected to have a direct, short-term impact on benthic resources. The construction of the floodwalls is expected to cover benthic organisms and cause some mortality. Benthic resources would begin to recolonize along the bulkheads immediately following the completion of each construction reach, and populations are expected to revert to pre-construction levels. There will be no long-term impacts on benthic resources as they are expected to return to pre-construction levels.
Will SAV be impacted? If no, why not? If yes, describe in detail how the SAV will be impacted. Consider both direct and indirect impacts. Provide details of any SAV survey conducted at the site.		✔	There is no SAV at or near the project site.
Will salt marsh habitat be impacted? If no, why not? If yes, describe in detail how wetlands will be impacted. What is the aerial extent of the impacts? Are the effects temporary or permanent?		✔	There is no salt marsh habitat at or near the project site.

Will mudflat habitat be impacted? If no, why not? If yes, describe in detail how mudflats will be impacted. What is the aerial extent of the impacts? Are the effects temporary or permanent?			There are no mudflats at or near the project site.
		✔	
Will shellfish habitat be impacted? If so, provide in detail how the shellfish habitat will be impacted. What is the aerial extent of the impact? Provide details of any shellfish survey conducted at the site.			The proposed action is expected to have a direct, short-term, impact on shellfish. Sessile shellfish that are present in the immediate construction area such as the razor clam and blue mussel are likely to be buried. However, no shellfish with significant commercial or recreational importance were identified (NJDEP 2016). Motile shellfish would avoid the study area during construction and therefore would not be impacted. Upon construction completion, any shellfish that moved can return (Wilber and Clarke 1998).
	✔		
Will hard bottom (rocky, cobble, gravel) habitat be impacted at the site? If so, provide in detail how the hard bottom will be impacted. What is the aerial extent of the impact?			There is no hard bottom at or near the project site.
		✔	
Will sediments be altered and/or sedimentation rates change? If no, why not? If yes, describe how.			Sediments within the footprint of the floodwalls will be replaced with hard vertical surface. Sedimentation rates will not change as a result of the project.
	✔		
Will turbidity increase? If no, why not? If yes, describe the causes, the extent of the effects, and the duration.			There may be temporary and localized increases in turbidity during pile driving with installation of the floodwalls and bulkhead. In general, pile driving results in very minimal sediment resuspension, and any sediments will dissipate quickly with the tidal currents following the completion of pile driving. During upland installation, erosion and sediment control BMPs (e.g., turbidity curtain, shoring box) will minimize the discharge of sediments to the water.
	✔		

Will water depth change? What are the current and proposed depths?			The proposed project will not affect water depth as it is not adding or removing sediment from the bottom of the shoreline
	✔		
Will contaminants be released into sediments or water column? If yes, describe the nature of the contaminants and the extent of the effects.			There may be temporary resuspension of sediments and associated contaminants, if present, during installation of the bulkhead. Current analysis shows no containments along the proposed project footprint. Any resuspension will be minor, and sediments and associated contaminants will settle over similar substrate quickly after construction.
	✔		
Will tidal flow, currents, or wave patterns be altered? If no, why not? If yes, describe in detail how.			The proposed project will not alter tidal flow, currents, or wave patterns as the shoreline is currently bulkheaded and the buried seawall is mostly at mean high tide.
		✔	
Will water quality be altered? If no, why not? If yes, describe in detail how. If the effects are temporary, describe the duration of the impact.			Installation of the floodwalls may result in temporary and localized increases in turbidity, resulting in a temporary effect to water quality. Any resuspended sediments will settle quickly upon cessation of these activities, and no permanent effects to water quality are expected as a result of the proposed project.
		✔	
Will ambient noise levels change? If no, why not? If yes, describe in detail how. If the effects are temporary, describe the duration and degree of impact.			In-water construction will result in temporary increases in underwater noise from vessel activity and pile driving. The use any vessels for the duration of construction is an incremental increase in vessel activity in the area and will not result in significant adverse effects. Pile driving will be completed via vibratory hammer to the extent possible. If an impact hammer is necessary, a soft start and cushion block will be used. Elevated noise levels are not expected to reach the threshold for injury to fishes. Fish can avoid the ensonified portion of the water, representing a temporary loss of foraging habitat. However, similar habitat will continue to be available in the vicinity and this avoidance will not result in an adverse effect to EFH.
	✔		
Does the action have the potential to impact prey species of federally managed fish with EFH designations?			Sediment disturbance associated with bulkhead installation and vessel movement will result in minor, short-term increases in suspended sediment, which will dissipate with the currents. Fish and motile benthic organisms will be able to avoid the site during pile driving and will not be affected by the temporary increase in turbidity. The area shaded by construction vessels will be minimal and will not have an effect on prey species. The proposed project will result in the permanent loss of non-motile benthic organisms within the footprint of the floodwalls, approximately 10,000 linear feet. While burrowing benthos will no longer be available to predators within this footprint, there is similar foraging habitat in the vicinity.
	✔		

Step 4: This section is used to evaluate the consequences of the proposed action on the functions and values of EFH as well as the vulnerability of the EFH species and their life stages. Identify which species (from the list generated in Step 1) will be adversely impacted from the action. Assessment of EFH impacts should be based upon the site characteristics identified in Step 2 and the nature of the impacts described within Step 3. NOAA's EFH Mapper should be used during this assessment to determine the ecological parameters/ preferences associated with each species listed and the potential impact to those parameters.

4. EFH ASSESSMENT

Functions and Values	Y	N	Describe habitat type, species and life stages to be adversely impacted
Will functions and values of EFH be impacted for:			
Spawning **If yes, describe in detail how, and for which species. Describe how adverse effects will be avoided and minimized.**	✔		No significant impact from loss of benthic infaunal species because primary prey are more mobile epifaunal species and fish will relocate for food. Construction during spawning season will cause female winter flounder and windowpane to move to nearby unaffected areas to spawn, but should have no significant impact on egg production.
Nursery **If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.**	✔		Placement of outfall extension may cause mortality of demersal eggs in the spawning area for windowpane and flounders . Minimal impact expected. Loss of benthic infaunal prey organisms will cause larger juveniles (windowpane and flounders) to relocate to nearby, unaffected areas; smaller juveniles are less able to relocate and are vulnerable to mortality from construction activities.
Forage **If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.**	✔		The project will result in a minor temporary increase in suspended sediment and localized increases in turbidity during pile driving, which could impact bottom dwelling foragers (e.g., windowpane, summer flounder, winter flounder, skates). Any sediment disturbed during this time will dissipate quickly with the tidal currents. Pile driving will be temporary and intermittent and will minimize the effects of increased underwater noise through the use of a vibratory hammer. Once installed, the bulkhead may provide vertical hard surface for encrusting organisms, which may serve as prey for some fish.
Shelter **If yes, describe in detail how and for which species. Describe how adverse effects will be avoided and minimized.**	✔		The proposed project may create limited shelter habitat for EFH among the bulkhead where there previously was none. This may provide some habitat for EFH species associated with shelter.

Will impacts be temporary or permanent? Please indicate in description box and describe the duration of the impacts.			Temporary impacts include: increase in suspended sediment and turbidity during pile driving, vessel movement, increase in noise during pile driving, and increase in vessel traffic and shading. Temporarily elevated underwater noise and suspended sediment levels will result in avoidance of the area by some fish, but they are expected to return to the area following completion of pile driving. Permanent impacts include: loss of up to of bottom habitat in the footprint of the bulkhead. The loss of bottom habitat is minimal compared to the availability of similar habitat in the vicinity, and the bulkhead will provide vertical surface for encrusting organisms.
Will compensatory mitigation be used? If no, why not? Describe plans for mitigation and how this will offset impacts to EFH. Include a conceptual compensatory mitigation plan, if applicable.			No compensatory mitigation will be used. Measures that will be implemented to minimize construction impacts include: use of a vibratory hammer to the extent possible and a soft start and cushion block if impact hammering is required in order to minimize underwater noise increases.
		✔	

<u>Step 5</u>: This section provides the federal agency's determination on the degree of impact to EFH from the proposed action. The EFH determination also dictates the type of EFH consultation that will be required with NOAA Fisheries.

Please note: if information provided in the worksheet is insufficient to allow NOAA Fisheries to complete the EFH consultation additional information will be requested.

5. DETERMINATION OF IMPACT

Federal Agency's EFH Determination		
Overall degree of adverse effects on EFH (not including compensatory mitigation) will be: **(check the appropriate statement)**	☐	**There is no adverse effect on EFH or no EFH is designated at the project site.** **EFH Consultation is not required.**
	✔	**The adverse effect on EFH is not substantial. This means that the adverse effects are either no more than minimal, temporary, or that they can be alleviated with minor project modifications or conservation recommendations.** **This is a request for an abbreviated EFH consultation.**
	☐	**The adverse effect on EFH is substantial.** **This is a request for an expanded EFH consultation.**

Step 6: Consultation with NOAA Fisheries may also be required if the proposed action results in adverse impacts to other NOAA-trust resources, such as anadromous fish, shellfish, crustaceans, or their habitats as part of the Fish and Wildlife Coordination Act Some examples of other NOAA-trust resources are listed below. Inquiries regarding potential impacts to marine mammals or threatened/endangered species should be directed to NOAA Fisheries' Protected Resources Division.

6. OTHER NOAA-TRUST RESOURCES IMPACT ASSESSMENT	
Species known to occur at site (list others that may apply)	**Describe habitat impact type (i.e., physical, chemical, or biological disruption of spawning and/or egg development habitat, juvenile nursery and/or adult feeding or migration habitat). Please note, impacts to federally listed species of fish, sea turtles, and marine mammals must be coordinated with the GARFO Protected Resources Division.**
alewife	Given that alewife are pelagic, and neither spawning nor nursery habitat occurs within the project area, the proposed project will not adversely affect this species. Therefore, the proposed project will not have significant adverse effects on alewife.
American eel	Given that American eel are pelagic, and neither spawning nor nursery habitat occurs within the project area, the proposed project will not adversely affect this species Therefore, the proposed project will not have significant adverse effects on American eel.
American shad	Given that American shad are pelagic, and neither spawning nor nursery habitat occurs within the project area, the proposed project will not adversely affect this species. Therefore, the proposed project will not have significant adverse effects on American shad.
Atlantic menhaden	Given that American menhaden are pelagic, and neither spawning nor nursery habitat occurs within the project area, the proposed project will not adversely affect this species. Therefore, the proposed project will not have significant adverse effects on American menhaden.
blue crab	The proposed project will result in a minimal and temporary increase in suspended sediment and localized increases in turbidity during installation of the bulkhead. Any temporary increase in suspended sediments and localized turbidity will dissipate upon the cessation of sediment disturbing activities. Blue crabs are motile and are not expected to be adversely impacted by installation activities. Noise from pile driving will be mitigated by driving via vibratory hammer to the extent possible. While blue crab will likely avoid the area of the bay ensonified during pile driving, they are expected to return following completion of pile driving. Therefore, the proposed project will not have significant adverse effects on blue crab.
blue mussel	Blue mussels may be present in the generally substrate in the proposed project, any blue mussels within the footprint of the bulkhead will be lost. Blue mussels may colonize the vertical surfaces of the bulkhead. The proposed project will result in a minimal and temporary increase in suspended sediment and localized increases in turbidity during installation of the bulkhead. Any temporary increase in suspended sediments and localized turbidity will dissipate upon the cessation of sediment disturbing activities. Therefore, the proposed project will not have significant adverse effects on blue mussel.
blueback herring	Given that blueback herring are pelagic, and neither spawning nor nursery habitat occurs within the project area, the proposed project will not adversely affect this species. Therefore, the proposed project will not have significant adverse effects on blueback herring.

Eastern oyster	There are no known natural or man-made oyster beds in the vicinity of the proposed project. The proposed project will result in a minimal and temporary increase in suspended sediment and localized increases in turbidity during installation of the bulkhead. Any temporary increase in suspended sediments and localized turbidity will dissipate upon the cessation of sediment disturbing activities. Therefore, the proposed project will not have significant adverse effects on eastern oyster.
horseshoe crab	The project area has minimal beach habitat and most likely does not provide habitat for horseshoe crabs and there is habitat near the project on Sandy Hook Peninsula and Atlantic Highlands. The proposed project will result in a minimal and temporary increase in suspended sediment and localized increases in turbidity during installation of the bulkhead. Any temporarily increased suspended sediments and localized turbidity will dissipate upon the cessation of sediment disturbing activities. Noise from pile driving will be mitigated via vibratory hammer to the extent possible. While horseshoe crab will likely avoid the area of the bay ensonified during pile driving, they are expected to return following completion of in-water construction. Therefore, the proposed project will not have significant adverse effects on horseshoe crab.
quahog	Any quahogs within the footprint of the bulkhead will be lost. Since this area represents a very small portion of available habitat within the bay, hard clams are expected to continue to colonize or recolonize in suitable habitat in the vicinity. The proposed project will result in a minimal and temporary increase in suspended sediment and localized increases in turbidity during installation of the bulkhead. Any temporary increase in suspended sediments and localized turbidity will dissipate upon the cessation of sediment disturbing activities. Therefore, the proposed installation will not have significant adverse effects on quahog.
soft-shell clams	Any soft-shell clams within the footprint of the bulkhead will be lost. Since this area represents a very small portion of available habitat within the bay, hard clams are expected to continue to colonize or recolonize in suitable habitat in the vicinity. The proposed project will result in a minimal and temporary increase in suspended sediment and localized increases in turbidity during installation of the bulkhead. Any temporary increase in suspended sediments and localized turbidity will dissipate upon the cessation of sediment disturbing activities. Therefore, the proposed installation will not have significant adverse effects on soft-shell clams.
striped bass	Given that striped bass are pelagic, and neither spawning nor nursery habitat occurs within the project area, the proposed project will not adversely affect this species. Therefore, the proposed project will not have significant adverse effects on striped bass.
other species:	

Federal Interagency Comment Form

PROJECT:	US Army Corps of Engineers Raritan Bay and Sandy Hook Bay Highlands, New Jersey Coastal Storm Risk Management Feasibility Study
APPL. NUMBER:	**N/A**
Commenting Agency:	NOAA Fisheries - HCD
Project Manager:	Matthew Voisine
Waterway/Location	Sandy Hook Bay Highlands, Monmouth Co., NJ
Activity	Shore protection project that project follows the actual perimeter of 10,737 LF of shoreline and includes floodwalls, a street closure gate, a detention pond, diversion culverts, and a pump station for interior drainage.

ESSENTIAL FISH HABITAT (EFH)

Project may adversely affect EFH.

ESSENTIAL FISH HABITAT CONSERVATION RECOMMENDATIONS (Note: EFH CRs require a response from the federal action agency within 30 days of receipt or 10 days before a permit is issued if CRs are not included as a special condition of the permit. In addition, a distinct and further EFH consultation must be reinitiated pursuant to 50 CRF 600.920 (j) if new information becomes available, or if the project is revised in such a manner that affects the basis for the above EFH determination or EFH conservation recommendations.)

1. Use appropriate best management practices during in-water work to minimum turbidity and encroachment into the bay.
2. If any work will be conducted from barges or other vessels, they should float at all stages of the tide.
3. Provide compensatory mitigation for any unavoidable impacts to wetlands in accordance with the 2008 mitigation rules and NJDEP regulations.

FISH AND WILDLIFE COORDINATION ACT COMMENTS
See above:

SIGNATURE: Karen Greene DATE: 01/14/2020

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278-0090

REPLY TO
ATTENTION OF
Environmental Analysis Branch

January 23, 2020

Ms. Karen Greene
Mid-Atlantic Field Office Supervisor and EFH Coordinator
National Marine Fisheries Service
James J. Howard Marine Sciences Laboratory
74 Magruder Road
Highlands, NJ 07732

Dear Ms. Greene,

The U.S. Army Corps of Engineers, New York District (District) received your comment letter dated January 14, 2020, regarding Essential Fish Habitat Conservation Recommendations (EFH CR) for the Raritan Bay and Sandy Hook Bay Highlands, New Jersey Coastal Storm Risk Management Feasibility Study. The District has reviewed the CRs and is providing the following responses to the CRs below.

NOAA –Fisheries HCD Conservation Recommendations:

1. Use appropriate best management practices during in-water work to minimize turbidity and encroachment into the bay.
   Response: The District agrees with the CR. The District will use best management practices such as turbidity curtains to minimize sediment transportation into the bay.

2. If any work will be conducted from barges or other vessels, they should float at all stages of the tide.
   Response: The District does not anticipate work to occur from vessels on the bay, however, if it does, the District will ensure that all vessels float during all tide stages.

3. Provide compensatory mitigation for any unavoidable impacts to wetlands in accordance with the 2008 mitigation rules and NJDEP regulations.
   Response: The District has determined that approximately 0.75 acres of freshwater wetlands will be permanently impacted with the construction of the floodwall. Plans call for mitigation through the purchase of mitigation credits at a wetland bank within the Wetland Management Area. The District has coordinated this plan with New Jersey Department of Environmental Protection and the U. S. Fish and Wildlife Service. The District will continue to coordinate with these two agencies and NOAA – Fisheries HCD during the pre-engineering and design phase of the project.

Thank you for your continued coordination with this project. Should you have any questions please contact the project biologist, Matthew Voisine, by phone (917) 790-8718, or by email at matthew.voisine@usace.army.mil.

Sincerely,

WEPPLER.PETER.M.1228647353 Digitally signed by WEPPLER.PETER.M.1228647353 Date: 2020.01.23 13:09:34 -05'00'

Peter Weppler, Chief
Environmental Analysis Branch